aws

API Reference

Amazon GameLift

API Version 2015-10-01

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Amazon GameLift: API Reference

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Welcome

Amazon GameLift provides solutions for hosting session-based multiplayer game servers in the cloud, including tools for deploying, operating, and scaling game servers. Built on AWS global computing infrastructure, GameLift helps you deliver high-performance, high-reliability, low-cost game servers while dynamically scaling your resource usage to meet player demand.

About Amazon GameLift solutions

Get more information on these Amazon GameLift solutions in the Amazon GameLift Developer Guide.

- Amazon GameLift managed hosting -- Amazon GameLift offers a fully managed service to set up and maintain computing machines for hosting, manage game session and player session life cycle, and handle security, storage, and performance tracking. You can use automatic scaling tools to balance player demand and hosting costs, configure your game session management to minimize player latency, and add FlexMatch for matchmaking.
- Managed hosting with Realtime Servers -- With Amazon GameLift Realtime Servers, you can quickly configure and set up ready-to-go game servers for your game. Realtime Servers provides a game server framework with core Amazon GameLift infrastructure already built in. Then use the full range of Amazon GameLift managed hosting features, including FlexMatch, for your game.
- Amazon GameLift FleetIQ -- Use Amazon GameLift FleetIQ as a standalone service while hosting your games using EC2 instances and Auto Scaling groups. Amazon GameLift FleetIQ provides optimizations for game hosting, including boosting the viability of low-cost Spot Instances gaming. For a complete solution, pair the Amazon GameLift FleetIQ and FlexMatch standalone services.
- Amazon GameLift FlexMatch -- Add matchmaking to your game hosting solution. FlexMatch is a customizable matchmaking service for multiplayer games. Use FlexMatch as integrated with Amazon GameLift managed hosting or incorporate FlexMatch as a standalone service into your own hosting solution.

About this API Reference

This reference guide describes the low-level service API for Amazon GameLift. With each topic in this guide, you can find links to language-specific SDK guides and the AWS CLI reference. Useful links:

- Amazon GameLift API operations listed by tasks
- Amazon GameLift tools and resources

This document was last published on April 19, 2024.

Actions

The following actions are supported:

- AcceptMatch
- ClaimGameServer
- CreateAlias
- CreateBuild
- CreateFleet
- CreateFleetLocations
- CreateGameServerGroup
- CreateGameSession
- CreateGameSessionQueue
- CreateLocation
- CreateMatchmakingConfiguration
- CreateMatchmakingRuleSet
- CreatePlayerSession
- CreatePlayerSessions
- CreateScript
- CreateVpcPeeringAuthorization
- CreateVpcPeeringConnection
- DeleteAlias
- DeleteBuild
- DeleteFleet
- DeleteFleetLocations
- DeleteGameServerGroup
- DeleteGameSessionQueue
- DeleteLocation
- DeleteMatchmakingConfiguration
- DeleteMatchmakingRuleSet
- DeleteScalingPolicy

- DeleteScript
- DeleteVpcPeeringAuthorization
- DeleteVpcPeeringConnection
- DeregisterCompute
- DeregisterGameServer
- DescribeAlias
- DescribeBuild
- DescribeCompute
- DescribeEC2InstanceLimits
- DescribeFleetAttributes
- DescribeFleetCapacity
- DescribeFleetEvents
- DescribeFleetLocationAttributes
- DescribeFleetLocationCapacity
- DescribeFleetLocationUtilization
- DescribeFleetPortSettings
- DescribeFleetUtilization
- DescribeGameServer
- DescribeGameServerGroup
- DescribeGameServerInstances
- DescribeGameSessionDetails
- DescribeGameSessionPlacement
- DescribeGameSessionQueues
- DescribeGameSessions
- DescribeInstances
- DescribeMatchmaking
- DescribeMatchmakingConfigurations
- DescribeMatchmakingRuleSets
- DescribePlayerSessions
- DescribeRuntimeConfiguration

- DescribeScalingPolicies
- DescribeScript
- DescribeVpcPeeringAuthorizations
- DescribeVpcPeeringConnections
- GetComputeAccess
- GetComputeAuthToken
- GetGameSessionLogUrl
- GetInstanceAccess
- ListAliases
- ListBuilds
- ListCompute
- ListFleets
- ListGameServerGroups
- ListGameServers
- ListLocations
- ListScripts
- ListTagsForResource
- PutScalingPolicy
- RegisterCompute
- RegisterGameServer
- RequestUploadCredentials
- ResolveAlias
- ResumeGameServerGroup
- SearchGameSessions
- StartFleetActions
- StartGameSessionPlacement
- StartMatchBackfill
- StartMatchmaking
- StopFleetActions
- StopGameSessionPlacement

- StopMatchmaking
- SuspendGameServerGroup
- TagResource
- UntagResource
- UpdateAlias
- UpdateBuild
- UpdateFleetAttributes
- UpdateFleetCapacity
- UpdateFleetPortSettings
- UpdateGameServer
- UpdateGameServerGroup
- UpdateGameSession
- UpdateGameSessionQueue
- UpdateMatchmakingConfiguration
- UpdateRuntimeConfiguration
- UpdateScript
- ValidateMatchmakingRuleSet

AcceptMatch

Registers a player's acceptance or rejection of a proposed FlexMatch match. A matchmaking configuration may require player acceptance; if so, then matches built with that configuration cannot be completed unless all players accept the proposed match within a specified time limit.

When FlexMatch builds a match, all the matchmaking tickets involved in the proposed match are placed into status `REQUIRES_ACCEPTANCE`. This is a trigger for your game to get acceptance from all players in each ticket. Calls to this action are only valid for tickets that are in this status; calls for tickets not in this status result in an error.

To register acceptance, specify the ticket ID, one or more players, and an acceptance response. When all players have accepted, Amazon GameLift advances the matchmaking tickets to status `PLACING`, and attempts to create a new game session for the match.

If any player rejects the match, or if acceptances are not received before a specified timeout, the proposed match is dropped. Each matchmaking ticket in the failed match is handled as follows:

- If the ticket has one or more players who rejected the match or failed to respond, the ticket status is set `CANCELLED` and processing is terminated.
- If all players in the ticket accepted the match, the ticket status is returned to `SEARCHING` to find a new match.

Learn more

Add FlexMatch to a game client

FlexMatch events (reference)

Request Syntax

```
{
   "AcceptanceType": "string",
   "PlayerIds": [ "string" ],
   "TicketId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

AcceptanceType

Player response to the proposed match.

Type: String

Valid Values: `ACCEPT | REJECT`

Required: Yes

PlayerIds

A unique identifier for a player delivering the response. This parameter can include one or multiple player IDs.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

TicketId

A unique identifier for a matchmaking ticket. The ticket must be in status `REQUIRES_ACCEPTANCE`; otherwise this request will fail.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ClaimGameServer

This operation is used with the Amazon GameLift FleetIQ solution and game server groups.

Locates an available game server and temporarily reserves it to host gameplay and players. This operation is called from a game client or client service (such as a matchmaker) to request hosting resources for a new game session. In response, Amazon GameLift FleetIQ locates an available game server, places it in `CLAIMED` status for 60 seconds, and returns connection information that players can use to connect to the game server.

To claim a game server, identify a game server group. You can also specify a game server ID, although this approach bypasses Amazon GameLift FleetIQ placement optimization. Optionally, include game data to pass to the game server at the start of a game session, such as a game map or player information. Add filter options to further restrict how a game server is chosen, such as only allowing game servers on `ACTIVE` instances to be claimed.

When a game server is successfully claimed, connection information is returned. A claimed game server's utilization status remains `AVAILABLE` while the claim status is set to `CLAIMED` for up to 60 seconds. This time period gives the game server time to update its status to `UTILIZED` after players join. If the game server's status is not updated within 60 seconds, the game server reverts to unclaimed status and is available to be claimed by another request. The claim time period is a fixed value and is not configurable.

If you try to claim a specific game server, this request will fail in the following cases:

- If the game server utilization status is `UTILIZED`.
- If the game server claim status is `CLAIMED`.
- If the game server is running on an instance in `DRAINING` status and the provided filter option does not allow placing on `DRAINING` instances.

Learn more

Amazon GameLift FleetIQ Guide

Request Syntax

```
{
   "FilterOption": {
```

```
      "InstanceStatuses": [ "string" ]
   },
   "GameServerData": "string",
   "GameServerGroupName": "string",
   "GameServerId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameServerGroupName

A unique identifier for the game server group where the game server is running. If you are not specifying a game server to claim, this value identifies where you want Amazon GameLift FleetIQ to look for an available game server to claim.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]+|^arn:.*:gameservergroup\/[a-zA-Z0-9-\.]+`

Required: Yes

FilterOption

Object that restricts how a claimed game server is chosen.

Type: ClaimFilterOption object

Required: No

GameServerData

A set of custom game server properties, formatted as a single string value. This data is passed to a game client or service when it requests information on game servers.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `.*\S.*`

Required: No

GameServerId

A custom string that uniquely identifies the game server to claim. If this parameter is left empty, Amazon GameLift FleetIQ searches for an available game server in the specified game server group.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]+`

Required: No

Response Syntax

```
{
   "GameServer": {
      "ClaimStatus": "string",
      "ConnectionInfo": "string",
      "GameServerData": "string",
      "GameServerGroupArn": "string",
      "GameServerGroupName": "string",
      "GameServerId": "string",
      "InstanceId": "string",
      "LastClaimTime": number,
      "LastHealthCheckTime": number,
      "RegistrationTime": number,
      "UtilizationStatus": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameServer

Object that describes the newly claimed game server.

Type: GameServer object

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

OutOfCapacityException

The specified game server group has no available game servers to fulfill a `ClaimGameServer` request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Reserve a game server for a new game session

This example reserves an available game server to host a new game session. Because the request does not specify a game server ID, Amazon GameLift selects an available game server with optimal placement.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
   "GameServerGroupName": "MegaFrogServers_NA"
}

CLI command:

aws gamelift claim-game-server \
    --game-server-group-name MegaFrogServers_NA
```

Sample Response

```
{
   "GameServer": {
      "ClaimStatus": "CLAIMED",
      "ConnectionInfo": "192.0.2.0.80",
      "GameServerData": "",
      "GameServerGroupArn": "arn:aws:gamelift:us-west-2::GameServerGroup/
MegaFrogServers_NA",
      "GameServerGroupName": "MegaFrogServers_NA",
      "GameServerId": "mega-frog-game-12345678",
      "InstanceId": "i-1234567890abcdef0",
```

```
      "LastClaimTime": 1580218197.293,
      "LastHealthCheckTime": 1580218197.293,
      "RegistrationTime": 1580218197.293,
      "UtilizationStatus": "AVAILABLE"
   }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateAlias

Creates an alias for a fleet. In most situations, you can use an alias ID in place of a fleet ID. An alias provides a level of abstraction for a fleet that is useful when redirecting player traffic from one fleet to another, such as when updating your game build.

Amazon GameLift supports two types of routing strategies for aliases: simple and terminal. A simple alias points to an active fleet. A terminal alias is used to display messaging or link to a URL instead of routing players to an active fleet. For example, you might use a terminal alias when a game version is no longer supported and you want to direct players to an upgrade site.

To create a fleet alias, specify an alias name, routing strategy, and optional description. Each simple alias can point to only one fleet, but a fleet can have multiple aliases. If successful, a new alias record is returned, including an alias ID and an ARN. You can reassign an alias to another fleet by calling `UpdateAlias`.

Related actions

All APIs by task

Request Syntax

```
{
   "Description": "string",
   "Name": "string",
   "RoutingStrategy": {
      "FleetId": "string",
      "Message": "string",
      "Type": "string"
   },
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Name

A descriptive label that is associated with an alias. Alias names do not need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `.*\S.*`

Required: Yes

RoutingStrategy

The routing configuration, including routing type and fleet target, for the alias.

Type: RoutingStrategy object

Required: Yes

Description

A human-readable description of the alias.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Tags

A list of labels to assign to the new alias resource. Tags are developer-defined key-value pairs. Tagging AWS resources are useful for resource management, access management and cost allocation. For more information, see Tagging AWS Resources in the *AWS General Reference*.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Syntax

```
{
   "Alias": {
      "AliasArn": "string",
      "AliasId": "string",
      "CreationTime": number,
      "Description": "string",
      "LastUpdatedTime": number,
      "Name": "string",
      "RoutingStrategy": {
         "FleetId": "string",
         "Message": "string",
         "Type": "string"
      }
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Alias

The newly created alias resource.

Type: Alias object

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

LimitExceededException

The requested operation would cause the resource to exceed the allowed service limit. Resolve the issue before retrying.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++

- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateBuild

Creates a new Amazon GameLift build resource for your game server binary files. Combine game server binaries into a zip file for use with Amazon GameLift.

> **Important**
>
> When setting up a new game build for Amazon GameLift, we recommend using the AWS CLI command **upload-build** . This helper command combines two tasks: (1) it uploads your build files from a file directory to an Amazon GameLift Amazon S3 location, and (2) it creates a new build resource.

You can use the `CreateBuild` operation in the following scenarios:

- Create a new game build with build files that are in an Amazon S3 location under an AWS account that you control. To use this option, you give Amazon GameLift access to the Amazon S3 bucket. With permissions in place, specify a build name, operating system, and the Amazon S3 storage location of your game build.
- Upload your build files to a Amazon GameLift Amazon S3 location. To use this option, specify a build name and operating system. This operation creates a new build resource and also returns an Amazon S3 location with temporary access credentials. Use the credentials to manually upload your build files to the specified Amazon S3 location. For more information, see Uploading Objects in the *Amazon S3 Developer Guide*. After you upload build files to the Amazon GameLift Amazon S3 location, you can't update them.

If successful, this operation creates a new build resource with a unique build ID and places it in `INITIALIZED` status. A build must be in `READY` status before you can create fleets with it.

Learn more

Uploading Your Game

Create a Build with Files in Amazon S3

All APIs by task

Request Syntax

```
{
   "Name": "string",
   "OperatingSystem": "string",
   "ServerSdkVersion": "string",
   "StorageLocation": {
      "Bucket": "string",
      "Key": "string",
      "ObjectVersion": "string",
      "RoleArn": "string"
   },
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "Version": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Name

A descriptive label associated with a build. Build names don't need to be unique. You can change this value later.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

OperatingSystem

The operating system that your game server binaries run on. This value determines the type of fleet resources that you use for this build. If your game build contains multiple executables, they all must run on the same operating system. You must specify a valid operating system in this request. There is no default value. You can't change a build's operating system later.

> **Note**
>
> If you have active fleets using the Windows Server 2012 operating system, you can continue to create new builds using this OS until October 10, 2023, when Microsoft ends its support. All others must use Windows Server 2016 when creating new Windows-based builds.

Type: String

Valid Values: `WINDOWS_2012 | AMAZON_LINUX | AMAZON_LINUX_2 | WINDOWS_2016 | AMAZON_LINUX_2023`

Required: No

ServerSdkVersion

A server SDK version you used when integrating your game server build with Amazon GameLift. For more information see Integrate games with custom game servers. By default Amazon GameLift sets this value to `4.0.2`.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `^\d+\.\d+\.\d+$`

Required: No

StorageLocation

Information indicating where your game build files are stored. Use this parameter only when creating a build with files stored in an Amazon S3 bucket that you own. The storage location must specify an Amazon S3 bucket name and key. The location must also specify a role ARN

that you set up to allow Amazon GameLift to access your Amazon S3 bucket. The S3 bucket and your new build must be in the same Region.

If a `StorageLocation` is specified, the size of your file can be found in your Amazon S3 bucket. Amazon GameLift will report a `SizeOnDisk` of 0.

Type: S3Location object

Required: No

Tags

A list of labels to assign to the new build resource. Tags are developer defined key-value pairs. Tagging AWS resources are useful for resource management, access management and cost allocation. For more information, see Tagging AWS Resources in the *AWS General Reference*. Once the resource is created, you can use TagResource, UntagResource, and ListTagsForResource to add, remove, and view tags. The maximum tag limit may be lower than stated. See the AWS General Reference for actual tagging limits.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Version

Version information associated with a build or script. Version strings don't need to be unique. You can change this value later.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "Build": {
      "BuildArn": "string",
```

```
      "BuildId": "string",
      "CreationTime": number,
      "Name": "string",
      "OperatingSystem": "string",
      "ServerSdkVersion": "string",
      "SizeOnDisk": number,
      "Status": "string",
      "Version": "string"
   },
   "StorageLocation": {
      "Bucket": "string",
      "Key": "string",
      "ObjectVersion": "string",
      "RoleArn": "string"
   },
   "UploadCredentials": {
      "AccessKeyId": "string",
      "SecretAccessKey": "string",
      "SessionToken": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Build

The newly created build resource, including a unique build IDs and status.

Type: Build object

StorageLocation

Amazon S3 location for your game build file, including bucket name and key.

Type: S3Location object

UploadCredentials

This element is returned only when the operation is called without a storage location. It contains credentials to use when you are uploading a build file to an Amazon S3 bucket that is

owned by Amazon GameLift. Credentials have a limited life span. To refresh these credentials, call RequestUploadCredentials.

Type: AwsCredentials object

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Create a build with files in your own S3 bucket

This example creates a custom game build resource. It uses zipped files that are stored in an S3 location in an AWS account that you control. This example assumes that you've already created an IAM role that gives Amazon GameLift permission to access the S3 location. The request must specify a valid operating system value.

Sample Request

```
{
    "Name": "MegaFrogRaceServer.NA",
    "Version": "12345.678",
    "OperatingSystem": "WINDOWS_2016",
    "StorageLocation": {
        "Bucket": "MegaFrogRaceServer_NA_build_files",
        "Key": "MegaFrogRaceServer_build_123.zip",
        "RoleArn": "arn:aws:iam::111122223333:role/GameLiftAccess"
    }
}
```

Sample Response

```
{
    "Build": {
        "BuildArn": "arn:aws:gamelift:us-west-2::build/
build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "CreationTime": 1496708916.18,
        "Name": "MegaFrogRaceServer.NA",
        "OperatingSystem": "WINDOWS_2016",
        "SizeOnDisk": 0,
        "Status": "READY",
        "Version": "12345.678"
    },
    "StorageLocation": {
        "Bucket": "MegaFrogRaceServer_NA_build_files",
        "Key": "MegaFrogRaceServer_build_123.zip"
    }
}
```

Create a game build resource for manually uploading files to Amazon GameLift

This example creates a new build resource. It also gets a storage location and temporary credentials that allow you to manually upload your game build to the Amazon GameLift location in Amazon S3. When you specify a storage location, Amazon GameLift reports the `SizeOnDisk` as `0`. You can find the actual size in Amazon S3. After you upload your build, Amazon GameLift validates the build and updates the new build's status. The request must specify a valid operating system value.

Sample Request

```
{
    "Name": "MegaFrogRaceServer.NA",
    "Version": "12345.678",
    "OperatingSystem": "AMAZON_LINUX_2"
}
```

Sample Response

```
{
    "Build": {
        "BuildArn": "arn:aws:gamelift:us-west-2::build/
build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "CreationTime": 1496708916.18,
        "Name": "MegaFrogRaceServer.NA",
        "OperatingSystem": "AMAZON_LINUX_2",
        "SizeOnDisk": 0,
        "Status": "READY",
        "Version": "12345.678"
    },
    "StorageLocation": {
        "Bucket": "gamelift-builds-us-west-2",
        "Key": "123456789012/build-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
    },
    "UploadCredentials": {
        "AccessKeyId": "AKIAIOSFODNN7EXAMPLE",
        "SecretAccessKey": "wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY",
        "SessionToken": "AgoGb3JpZ2luENz...EXAMPLETOKEN=="
    }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateFleet

Creates a fleet of Amazon Elastic Compute Cloud (Amazon EC2) instances to host your custom game server or Realtime Servers. Use this operation to configure the computing resources for your fleet and provide instructions for running game servers on each instance.

Most Amazon GameLift fleets can deploy instances to multiple locations, including the home Region (where the fleet is created) and an optional set of remote locations. Fleets that are created in the following AWS Regions support multiple locations: us-east-1 (N. Virginia), us-west-2 (Oregon), eu-central-1 (Frankfurt), eu-west-1 (Ireland), ap-southeast-2 (Sydney), ap-northeast-1 (Tokyo), and ap-northeast-2 (Seoul). Fleets that are created in other Amazon GameLift Regions can deploy instances in the fleet's home Region only. All fleet instances use the same configuration regardless of location; however, you can adjust capacity settings and turn auto-scaling on/off for each location.

To create a fleet, choose the hardware for your instances, specify a game server build or Realtime script to deploy, and provide a runtime configuration to direct Amazon GameLift how to start and run game servers on each instance in the fleet. Set permissions for inbound traffic to your game servers, and enable optional features as needed. When creating a multi-location fleet, provide a list of additional remote locations.

If you need to debug your fleet, fetch logs, view performance metrics or other actions on the fleet, create the development fleet with port 22/3389 open. As a best practice, we recommend opening ports for remote access only when you need them and closing them when you're finished.

If successful, this operation creates a new Fleet resource and places it in `NEW` status, which prompts Amazon GameLift to initiate the fleet creation workflow. You can track fleet creation by checking fleet status using DescribeFleetAttributes and DescribeFleetLocationAttributes/, or by monitoring fleet creation events using DescribeFleetEvents.

When the fleet status changes to `ACTIVE`, you can enable automatic scaling with PutScalingPolicy and set capacity for the home Region with UpdateFleetCapacity. When the status of each remote location reaches `ACTIVE`, you can set capacity by location using UpdateFleetCapacity.

Learn more

Setting up fleets

Debug fleet creation issues

Multi-location fleets

Request Syntax

```
{
   "AnywhereConfiguration": {
      "Cost": "string"
   },
   "BuildId": "string",
   "CertificateConfiguration": {
      "CertificateType": "string"
   },
   "ComputeType": "string",
   "Description": "string",
   "EC2InboundPermissions": [
      {
         "FromPort": number,
         "IpRange": "string",
         "Protocol": "string",
         "ToPort": number
      }
   ],
   "EC2InstanceType": "string",
   "FleetType": "string",
   "InstanceRoleArn": "string",
   "InstanceRoleCredentialsProvider": "string",
   "Locations": [
      {
         "Location": "string"
      }
   ],
   "LogPaths": [ "string" ],
   "MetricGroups": [ "string" ],
   "Name": "string",
   "NewGameSessionProtectionPolicy": "string",
   "PeerVpcAwsAccountId": "string",
   "PeerVpcId": "string",
   "ResourceCreationLimitPolicy": {
      "NewGameSessionsPerCreator": number,
      "PolicyPeriodInMinutes": number
   },
   "RuntimeConfiguration": {
      "GameSessionActivationTimeoutSeconds": number,
```

```
      "MaxConcurrentGameSessionActivations": number,
      "ServerProcesses": [
         {
            "ConcurrentExecutions": number,
            "LaunchPath": "string",
            "Parameters": "string"
         }
      ]
   },
   "ScriptId": "string",
   "ServerLaunchParameters": "string",
   "ServerLaunchPath": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Name

A descriptive label that is associated with a fleet. Fleet names do not need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

AnywhereConfiguration

Amazon GameLift Anywhere configuration options.

Type: AnywhereConfiguration object

Required: No

BuildId

The unique identifier for a custom game server build to be deployed on fleet instances. You can use either the build ID or ARN. The build must be uploaded to Amazon GameLift and in READY status. This fleet property can't be changed after the fleet is created.

Type: String

Pattern: `^build-\S+|^arn:.*:build\/build-\S+`

Required: No

CertificateConfiguration

Prompts Amazon GameLift to generate a TLS/SSL certificate for the fleet. Amazon GameLift uses the certificates to encrypt traffic between game clients and the game servers running on Amazon GameLift. By default, the `CertificateConfiguration` is `DISABLED`. You can't change this property after you create the fleet.

AWS Certificate Manager (ACM) certificates expire after 13 months. Certificate expiration can cause fleets to fail, preventing players from connecting to instances in the fleet. We recommend you replace fleets before 13 months, consider using fleet aliases for a smooth transition.

> **Note**
>
> ACM isn't available in all AWS regions. A fleet creation request with certificate generation enabled in an unsupported Region, fails with a 4xx error. For more information about the supported Regions, see Supported Regions in the *AWS Certificate Manager User Guide*.

Type: CertificateConfiguration object

Required: No

ComputeType

The type of compute resource used to host your game servers. You can use your own compute resources with Amazon GameLift Anywhere or use Amazon EC2 instances with managed Amazon GameLift. By default, this property is set to EC2.

Type: String

Valid Values: `EC2 | ANYWHERE`

Required: No

Description

A description for the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

EC2InboundPermissions

The allowed IP address ranges and port settings that allow inbound traffic to access game sessions on this fleet. If the fleet is hosting a custom game build, this property must be set before players can connect to game sessions. For Realtime Servers fleets, Amazon GameLift automatically sets TCP and UDP ranges.

Type: Array of IpPermission objects

Array Members: Maximum number of 50 items.

Required: No

EC2InstanceType

The Amazon GameLift-supported Amazon EC2 instance type to use for all fleet instances. Instance type determines the computing resources that will be used to host your game servers, including CPU, memory, storage, and networking capacity. See Amazon Elastic Compute Cloud Instance Types for detailed descriptions of Amazon EC2 instance types.

Type: String

Valid Values: `t2.micro | t2.small | t2.medium | t2.large | c3.large | c3.xlarge | c3.2xlarge | c3.4xlarge | c3.8xlarge | c4.large | c4.xlarge | c4.2xlarge | c4.4xlarge | c4.8xlarge | c5.large | c5.xlarge | c5.2xlarge | c5.4xlarge | c5.9xlarge | c5.12xlarge | c5.18xlarge | c5.24xlarge | c5a.large | c5a.xlarge | c5a.2xlarge | c5a.4xlarge |`

c5a.8xlarge | c5a.12xlarge | c5a.16xlarge | c5a.24xlarge | r3.large | r3.xlarge | r3.2xlarge | r3.4xlarge | r3.8xlarge | r4.large | r4.xlarge | r4.2xlarge | r4.4xlarge | r4.8xlarge | r4.16xlarge | r5.large | r5.xlarge | r5.2xlarge | r5.4xlarge | r5.8xlarge | r5.12xlarge | r5.16xlarge | r5.24xlarge | r5a.large | r5a.xlarge | r5a.2xlarge | r5a.4xlarge | r5a.8xlarge | r5a.12xlarge | r5a.16xlarge | r5a.24xlarge | m3.medium | m3.large | m3.xlarge | m3.2xlarge | m4.large | m4.xlarge | m4.2xlarge | m4.4xlarge | m4.10xlarge | m5.large | m5.xlarge | m5.2xlarge | m5.4xlarge | m5.8xlarge | m5.12xlarge | m5.16xlarge | m5.24xlarge | m5a.large | m5a.xlarge | m5a.2xlarge | m5a.4xlarge | m5a.8xlarge | m5a.12xlarge | m5a.16xlarge | m5a.24xlarge | c5d.large | c5d.xlarge | c5d.2xlarge | c5d.4xlarge | c5d.9xlarge | c5d.12xlarge | c5d.18xlarge | c5d.24xlarge | c6a.large | c6a.xlarge | c6a.2xlarge | c6a.4xlarge | c6a.8xlarge | c6a.12xlarge | c6a.16xlarge | c6a.24xlarge | c6i.large | c6i.xlarge | c6i.2xlarge | c6i.4xlarge | c6i.8xlarge | c6i.12xlarge | c6i.16xlarge | c6i.24xlarge | r5d.large | r5d.xlarge | r5d.2xlarge | r5d.4xlarge | r5d.8xlarge | r5d.12xlarge | r5d.16xlarge | r5d.24xlarge | m6g.medium | m6g.large | m6g.xlarge | m6g.2xlarge | m6g.4xlarge | m6g.8xlarge | m6g.12xlarge | m6g.16xlarge | c6g.medium | c6g.large | c6g.xlarge | c6g.2xlarge | c6g.4xlarge | c6g.8xlarge | c6g.12xlarge | c6g.16xlarge | r6g.medium | r6g.large | r6g.xlarge | r6g.2xlarge | r6g.4xlarge | r6g.8xlarge | r6g.12xlarge | r6g.16xlarge | c6gn.medium | c6gn.large | c6gn.xlarge | c6gn.2xlarge | c6gn.4xlarge | c6gn.8xlarge | c6gn.12xlarge | c6gn.16xlarge | c7g.medium | c7g.large | c7g.xlarge | c7g.2xlarge | c7g.4xlarge | c7g.8xlarge | c7g.12xlarge | c7g.16xlarge | r7g.medium | r7g.large | r7g.xlarge | r7g.2xlarge | r7g.4xlarge | r7g.8xlarge | r7g.12xlarge | r7g.16xlarge | m7g.medium | m7g.large | m7g.xlarge | m7g.2xlarge | m7g.4xlarge | m7g.8xlarge | m7g.12xlarge | m7g.16xlarge | g5g.xlarge | g5g.2xlarge | g5g.4xlarge | g5g.8xlarge | g5g.16xlarge

Required: No

FleetType

Indicates whether to use On-Demand or Spot instances for this fleet. By default, this property is set to ON_DEMAND. Learn more about when to use On-Demand versus Spot Instances. This fleet property can't be changed after the fleet is created.

Type: String

Valid Values: `ON_DEMAND | SPOT`

Required: No

InstanceRoleArn

A unique identifier for an IAM role with access permissions to other AWS services. Any application that runs on an instance in the fleet--including install scripts, server processes, and other processes--can use these permissions to interact with AWS resources that you own or have access to. For more information about using the role with your game server builds, see Communicate with other AWS resources from your fleets. This fleet property can't be changed after the fleet is created.

Type: String

Length Constraints: Minimum length of 1.

Required: No

InstanceRoleCredentialsProvider

Prompts Amazon GameLift to generate a shared credentials file for the IAM role defined in `InstanceRoleArn`. The shared credentials file is stored on each fleet instance and refreshed as needed. Use shared credentials for applications that are deployed along with the game server executable, if the game server is integrated with server SDK version 5.x. For more information about using shared credentials, see Communicate with other AWS resources from your fleets.

Type: String

Valid Values: `SHARED_CREDENTIAL_FILE`

Required: No

Locations

A set of remote locations to deploy additional instances to and manage as part of the fleet. This parameter can only be used when creating fleets in AWS Regions that support multiple locations. You can add any Amazon GameLift-supported AWS Region as a remote location, in the form of an AWS Region code such as `us-west-2`. To create a fleet with instances in the home Region only, don't use this parameter.

To use this parameter, Amazon GameLift requires you to use your home location in the request.

Type: Array of LocationConfiguration objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: No

LogPaths

This parameter is no longer used. To specify where Amazon GameLift should store log files once a server process shuts down, use the Amazon GameLift server API `ProcessReady()` and specify one or more directory paths in `logParameters`. For more information, see Initialize the server process in the *Amazon GameLift Developer Guide*.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

MetricGroups

The name of an AWS CloudWatch metric group to add this fleet to. A metric group is used to aggregate the metrics for multiple fleets. You can specify an existing metric group name or set a new name to create a new metric group. A fleet can be included in only one metric group at a time.

Type: Array of strings

Array Members: Maximum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

NewGameSessionProtectionPolicy

The status of termination protection for active game sessions on the fleet. By default, this property is set to `NoProtection`. You can also set game session protection for an individual game session by calling UpdateGameSession.

- **NoProtection** - Game sessions can be terminated during active gameplay as a result of a scale-down event.
- **FullProtection** - Game sessions in `ACTIVE` status cannot be terminated during a scale-down event.

Type: String

Valid Values: `NoProtection | FullProtection`

Required: No

PeerVpcAwsAccountId

Used when peering your Amazon GameLift fleet with a VPC, the unique identifier for the AWS account that owns the VPC. You can find your account ID in the AWS Management Console under account settings.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

PeerVpcId

A unique identifier for a VPC with resources to be accessed by your Amazon GameLift fleet. The VPC must be in the same Region as your fleet. To look up a VPC ID, use the VPC Dashboard in the AWS Management Console. Learn more about VPC peering in VPC Peering with Amazon GameLift Fleets.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

ResourceCreationLimitPolicy

A policy that limits the number of game sessions that an individual player can create on instances in this fleet within a specified span of time.

Type: ResourceCreationLimitPolicy object

Required: No

RuntimeConfiguration

Instructions for how to launch and maintain server processes on instances in the fleet. The runtime configuration defines one or more server process configurations, each identifying a build executable or Realtime script file and the number of processes of that type to run concurrently.

> **Note**
>
> The `RuntimeConfiguration` parameter is required unless the fleet is being configured using the older parameters `ServerLaunchPath` and `ServerLaunchParameters`, which are still supported for backward compatibility.

Type: RuntimeConfiguration object

Required: No

ScriptId

The unique identifier for a Realtime configuration script to be deployed on fleet instances. You can use either the script ID or ARN. Scripts must be uploaded to Amazon GameLift prior to creating the fleet. This fleet property can't be changed after the fleet is created.

Type: String

Pattern: `^script-\S+|^arn:.*:script\/script-\S+`

Required: No

ServerLaunchParameters

This parameter is no longer used. Specify server launch parameters using the `RuntimeConfiguration` parameter. Requests that use this parameter instead continue to be valid.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[A-Za-z0-9_:.+\/\\\- =@;{},?'\[\]"]+`

Required: No

ServerLaunchPath

This parameter is no longer used. Specify a server launch path using the `RuntimeConfiguration` parameter. Requests that use this parameter instead continue to be valid.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[A-Za-z0-9_:.+\/\\\- ]+`

Required: No

Tags

A list of labels to assign to the new fleet resource. Tags are developer-defined key-value pairs. Tagging AWS resources are useful for resource management, access management and cost allocation. For more information, see Tagging AWS Resources in the *AWS General Reference*.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Syntax

```
{
   "FleetAttributes": {
      "AnywhereConfiguration": {
         "Cost": "string"
      },
      "BuildArn": "string",
      "BuildId": "string",
      "CertificateConfiguration": {
         "CertificateType": "string"
      },
      "ComputeType": "string",
      "CreationTime": number,
      "Description": "string",
      "FleetArn": "string",
      "FleetId": "string",
      "FleetType": "string",
      "InstanceRoleArn": "string",
      "InstanceRoleCredentialsProvider": "string",
      "InstanceType": "string",
      "LogPaths": [ "string" ],
      "MetricGroups": [ "string" ],
```

```
      "Name": "string",
      "NewGameSessionProtectionPolicy": "string",
      "OperatingSystem": "string",
      "ResourceCreationLimitPolicy": {
         "NewGameSessionsPerCreator": number,
         "PolicyPeriodInMinutes": number
      },
      "ScriptArn": "string",
      "ScriptId": "string",
      "ServerLaunchParameters": "string",
      "ServerLaunchPath": "string",
      "Status": "string",
      "StoppedActions": [ "string" ],
      "TerminationTime": number
   },
   "LocationStates": [
      {
         "Location": "string",
         "Status": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetAttributes

The properties for the new fleet, including the current status. All fleets are placed in NEW status on creation.

Type: FleetAttributes object

LocationStates

The fleet's locations and life-cycle status of each location. For new fleets, the status of all locations is set to NEW. During fleet creation, Amazon GameLift updates each location status as instances are deployed there and prepared for game hosting. This list includes an entry for the fleet's home Region. For fleets with no remote locations, only one entry, representing the home Region, is returned.

Type: Array of LocationState objects

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

LimitExceededException

The requested operation would cause the resource to exceed the allowed service limit. Resolve the issue before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

Examples

Create fleet with minimal configuration (Linux)

This example creates a fleet for a game server build with a minimal configuration and a placeholder launch path. You can use this fleet to create queues and matchmakers, test Amazon GameLift Server API calls, etc. Once you're ready to start hosting game sessions, complete the configuration settings with the `UpdateFleet` operations. If the fleet is in a Region that supports multiple locations, you can add remote locations with `CreateFleetLocations` later. Note: this example generates a TLS certificate for the fleet, which can only be enabled during fleet creation.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "Name": "My_Fleet_1",
    "Description": "A minimal sample fleet",
    "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
    "CertificateConfiguration": {
        "CertificateType": "GENERATED"
    },
    "EC2InstanceType": "c4.large",
    "FleetType": "ON_DEMAND",
    "RuntimeConfiguration": {
        "ServerProcesses": [
            {"LaunchPath": "/local/game/mygame.exe",
             "ConcurrentExecutions": 1}
```

```
        ]
    }
}
```

Sample Response

```
{
    "FleetAttributes": {
        "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "FleetType": "ON_DEMAND",
        "InstanceType": "c4.large",
        "Description": "A minimal sample fleet",
        "Name": "My_Fleet_1",
        "CreationTime": 1496365885.44,
        "Status": "NEW",
        "BuildArn": "arn:aws:gamelift:us-west-2::build/
build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "NewGameSessionProtectionPolicy": "NoProtection",
        "OperatingSystem": "AMAZON_LINUX_2023",
        "MetricGroups": [
            "default"
        ],
        "CertificateConfiguration": {
            "CertificateType": "GENERATED"
        }
    }
}
```

Create fleet with minimal configuration (Windows)

This example creates a fleet for a game server build with a minimal configuration and a placeholder launch path. You can use this fleet to create queues and matchmakers, test Amazon GameLift Server API calls, etc. Once you're ready to start hosting game sessions, complete the configuration settings with the `UpdateFleet` operations. If the fleet is created in a Region that supports multiple locations, you can add remote locations with `CreateFleetLocations` later.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "Name": "My_Fleet_1",
    "Description": "A minimal sample fleet",
    "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
    "EC2InstanceType": "c4.large",
    "FleetType": "ON_DEMAND",
    "RuntimeConfiguration": {
        "ServerProcesses": [
            {"LaunchPath": "c:\\game\\mygame.exe",
             "ConcurrentExecutions": 1}
        ]
    }
}
```

Sample Response

```
{
    "FleetAttributes": {
        "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "FleetType": "ON_DEMAND",
        "InstanceType": "c4.large",
        "Description": "A minimal sample fleet",
        "Name": "My_Fleet_1",
        "CreationTime": 1496365885.44,
        "Status": "NEW",
        "BuildArn": "arn:aws:gamelift:us-west-2::build/
build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "NewGameSessionProtectionPolicy": "NoProtection",
        "OperatingSystem": "WINDOWS_2016",
        "MetricGroups": [
            "default"
        ],
        "CertificateConfiguration": {
            "CertificateType": "DISABLED"
        }
    }
}
```

Create fleet with full configuration

This example creates a fleet with complete configuration details. The new fleet, which is created in the AWS Region `us-west-2`, also deploys instances to two remote locations. In this example, the runtime configuration defines two server process configurations. The first configuration calls for three concurrent processes of the game server to run in standard mode. The second configuration calls for one process of the game server to run in a test mode. As a result, all fleet instances will maintain a total of four processes concurrently. This example also references an instance role ARN, which allows the processes running on each instance to access other AWS resources. The example opens port 22 for debugging the fleet. The game server build in this example runs on Windows.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "Name": "My_Fleet_1",
    "Description": "A fully configured sample fleet with",
    "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
    "CertificateConfiguration": {
        "CertificateType": "GENERATED"
    },
    "EC2InstanceType": "c4.large",
    "EC2InboundPermissions": [
        {"FromPort": 33435,
         "ToPort": 33435,
         "IpRange": "10.24.34.0/23",
         "Protocol": "UDP"},
        {"FromPort": 33235,
         "ToPort": 33235,
         "IpRange": "10.24.34.0/23",
         "Protocol": "UDP"},
        {"FromPort": 22,
         "ToPort": 22,
         "IpRange": "10.24.34.0/23",
         "Protocol": "TCP"}
    ],
    "FleetType": "ON_DEMAND",
    "Locations": [
        {"Location": "us-east-2"},
        {"Location": "ca-central-1"}
```

```
    ],
    "NewGameSessionProtectionPolicy": "FullProtection",
    "RuntimeConfiguration": {
        "ServerProcesses": [
            {"LaunchPath": "c:\\game\\mygame.exe",
             "Parameters": "+map Winter444",
             "ConcurrentExecutions": 3},
            {"LaunchPath": "c:\\game\\mygame.exe",
             "Parameters": "-dev -console +map Winter444",
             "ConcurrentExecutions": 1}
        ],
        "MaxConcurrentGameSessionActivations": 2,
        "GameSessionActivationTimeoutSeconds": 300
    },
    "ResourceCreationLimitPolicy": {
        "NewGameSessionsPerCreator": 3,
        "PolicyPeriodInMinutes": 15
    },
    "MetricGroups": ["EMEAfleets"],
    "InstanceRoleArn": "arn:aws:iam::444455556666:role/S3AccessForGameLift",
}
```

Sample Response

```
{
    "FleetAttributes": {
        "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "FleetType": "ON_DEMAND",
        "InstanceRoleArn": "arn:aws:iam::444455556666:role/S3AccessForGameLift",
        "Description": "A fully configured sample fleet",
        "Name": "My_Fleet_One",
        "CreationTime": 1496375088.502,
        "Status": "NEW",
        "BuildArn": "arn:aws:gamelift:us-west-2::build/
build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "NewGameSessionProtectionPolicy": "FullProtection",
        "OperatingSystem": "WINDOWS_2016",
        "ResourceCreationLimitPolicy": {
            "NewGameSessionsPerCreator": 3,
            "PolicyPeriodInMinutes": 15
```

```
        },
        "MetricGroups": [
            "EMEAfleets"
        ],
        "CertificateConfiguration": {
            "CertificateType": "GENERATED"
        }
    },
    "LocationStates": [
        {
            "Location": "us-east-2",
            "Status": "NEW"
        },
        {
            "Location": "ca-central-1",
            "Status": "NEW"
        }
    ]
}
```

Create a Realtime Servers fleet

This example creates a fleet using a Realtime script that has been uploaded to Amazon GameLift. All Realtime servers are deployed onto Linux machines. This example represents a simple yet complete fleet configuration. You can change configuration settings with the UpdateRuntimeConfiguration operation. The new fleet, which is created in the AWS Region `us-west-2`, also deploys instances to two remote locations.

In this example, the uploaded Realtime script includes multiple script files, with the `Init()` function located in the script file called "myMainScript.js". This file is identified as the launch script in the runtime configuration.

> **Note**
>
> We recommend using a minimal version of the Realtime script when creating your fleets (see this working code example). This will make it much easier to troubleshoot fleet creation issues. After the fleet has reached ACTIVE status, you can update your Realtime script as needed.

Sample Request

```
{
    "Name": "My_Realtime_Fleet_1",
    "Description": "A complete Realtime sample fleet",
    "CertificateConfiguration": {
        "CertificateType": "GENERATED"
    },
    "EC2InstanceType": "c4.large",
    "FleetType": "SPOT",
    "Locations": [
        {"Location": "us-east-2"},
        {"Location": "ca-central-1"}
    ],
    "RuntimeConfiguration": {
        "ServerProcesses": [
            {"LaunchPath": "/local/game/myMainScript.js",
             "Parameters": "+map Winter444",
             "ConcurrentExecutions": 5}
        ]
    },
    "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
}
```

Sample Response

```
{
    "FleetAttributes": {
        "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "FleetType": "SPOT",
        "Description": "A complete Realtime sample fleet",
        "Name": "My_Realtime_Fleet_1",
        "CreationTime": 1496375088.502,
        "Status": "NEW",
        "ScriptArn": "arn:aws:gamelift:us-west-2::script/
script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "NewGameSessionProtectionPolicy": "NoProtection",
        "OperatingSystem": "AMAZON_LINUX_2023",
        "MetricGroups": [
            "default"
```

```
        ],
        "CertificateConfiguration": {
            "CertificateType": "GENERATED"
        }
    },
    "LocationStates": [
        {
           "Location": "us-east-2",
           "Status": "NEW"
        },
        {
           "Location": "ca-central-1",
           "Status": "NEW"
        }
    ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateFleetLocations

Adds remote locations to a fleet and begins populating the new locations with EC2 instances. The new instances conform to the fleet's instance type, auto-scaling, and other configuration settings.

> **Note**
>
> This operation cannot be used with fleets that don't support remote locations. Fleets can have multiple locations only if they reside in AWS Regions that support this feature and were created after the feature was released in March 2021.

To add fleet locations, specify the fleet to be updated and provide a list of one or more locations.

If successful, this operation returns the list of added locations with their status set to NEW. Amazon GameLift initiates the process of starting an instance in each added location. You can track the status of each new location by monitoring location creation events using DescribeFleetEvents.

Learn more

Setting up fleets

Multi-location fleets

Request Syntax

```
{
   "FleetId": "string",
   "Locations": [
      {
         "Location": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to add locations to. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Locations

A list of locations to deploy additional instances to and manage as part of the fleet. You can add any Amazon GameLift-supported AWS Region as a remote location, in the form of an AWS Region code such as `us-west-2`.

Type: Array of LocationConfiguration objects

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Required: Yes

Response Syntax

```
{
   "FleetArn": "string",
   "FleetId": "string",
   "LocationStates": [
      {
         "Location": "string",
         "Status": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

FleetId

A unique identifier for the fleet that was updated with new locations.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

LocationStates

The remote locations that are being added to the fleet, and the life-cycle status of each location. For new locations, the status is set to `NEW`. During location creation, Amazon GameLift updates each location's status as instances are deployed there and prepared for game hosting. This list does not include the fleet home Region or any remote locations that were already added to the fleet.

Type: Array of LocationState objects

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidFleetStatusException

The requested operation would cause a conflict with the current state of a resource associated with the request and/or the fleet. Resolve the conflict before retrying.

HTTP Status Code: 400

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

LimitExceededException

The requested operation would cause the resource to exceed the allowed service limit. Resolve the issue before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

Examples

Add remote locations to an existing fleet

This example adds three five remote locations to a fleet that resides in the AWS Region `eu-central-1`. As shown, the status of each new location is initially set to `NEW`.

Sample Request

```
{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "Locations": [
        { "Location": "me-south-1"},
        { "Location": "eu-west-2"},
        { "Location": "eu-south-1"},
        { "Location": "eu-west-3"},
        { "Location": "eu-north-1"}
    ]
}
```

Sample Response

```
{
    "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "LocationStates": [
        {
            "Location": "eu-north-1",
            "Status": "NEW"
        },
        {
            "Location": "eu-west-3",
            "Status": "NEW"
        },
        {
            "Location": "eu-south-1",
            "Status": "NEW"
        },
        {
            "Location": "eu-west-2",
            "Status": "NEW"
```

```
        },
        {
            "Location": "me-south-1",
            "Status": "NEW"
        }
    ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateGameServerGroup

This operation is used with the Amazon GameLift FleetIQ solution and game server groups.

Creates a Amazon GameLift FleetIQ game server group for managing game hosting on a collection of Amazon Elastic Compute Cloud instances for game hosting. This operation creates the game server group, creates an Auto Scaling group in your AWS account, and establishes a link between the two groups. You can view the status of your game server groups in the Amazon GameLift console. Game server group metrics and events are emitted to Amazon CloudWatch.

Before creating a new game server group, you must have the following:

- An Amazon Elastic Compute Cloud launch template that specifies how to launch Amazon Elastic Compute Cloud instances with your game server build. For more information, see Launching an Instance from a Launch Template in the *Amazon Elastic Compute Cloud User Guide*.
- An IAM role that extends limited access to your AWS account to allow Amazon GameLift FleetIQ to create and interact with the Auto Scaling group. For more information, see Create IAM roles for cross-service interaction in the *Amazon GameLift FleetIQ Developer Guide*.

To create a new game server group, specify a unique group name, IAM role and Amazon Elastic Compute Cloud launch template, and provide a list of instance types that can be used in the group. You must also set initial maximum and minimum limits on the group's instance count. You can optionally set an Auto Scaling policy with target tracking based on a Amazon GameLift FleetIQ metric.

Once the game server group and corresponding Auto Scaling group are created, you have full access to change the Auto Scaling group's configuration as needed. Several properties that are set when creating a game server group, including maximum/minimum size and auto-scaling policy settings, must be updated directly in the Auto Scaling group. Keep in mind that some Auto Scaling group properties are periodically updated by Amazon GameLift FleetIQ as part of its balancing activities to optimize for availability and cost.

Learn more

Amazon GameLift FleetIQ Guide

Request Syntax

```
{
```

```
   "AutoScalingPolicy": {
      "EstimatedInstanceWarmup": number,
      "TargetTrackingConfiguration": {
         "TargetValue": number
      }
   },
   "BalancingStrategy": "string",
   "GameServerGroupName": "string",
   "GameServerProtectionPolicy": "string",
   "InstanceDefinitions": [
      {
         "InstanceType": "string",
         "WeightedCapacity": "string"
      }
   ],
   "LaunchTemplate": {
      "LaunchTemplateId": "string",
      "LaunchTemplateName": "string",
      "Version": "string"
   },
   "MaxSize": number,
   "MinSize": number,
   "RoleArn": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "VpcSubnets": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameServerGroupName

An identifier for the new game server group. This value is used to generate unique ARN identifiers for the Amazon EC2 Auto Scaling group and the Amazon GameLift FleetIQ game server group. The name must be unique per Region per AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]+`

Required: Yes

InstanceDefinitions

The Amazon EC2 instance types and sizes to use in the Auto Scaling group. The instance definitions must specify at least two different instance types that are supported by Amazon GameLift FleetIQ. For more information on instance types, see EC2 Instance Types in the *Amazon Elastic Compute Cloud User Guide*. You can optionally specify capacity weighting for each instance type. If no weight value is specified for an instance type, it is set to the default value "1". For more information about capacity weighting, see Instance Weighting for Amazon EC2 Auto Scaling in the Amazon EC2 Auto Scaling User Guide.

Type: Array of InstanceDefinition objects

Array Members: Minimum number of 2 items. Maximum number of 20 items.

Required: Yes

LaunchTemplate

The Amazon EC2 launch template that contains configuration settings and game server code to be deployed to all instances in the game server group. You can specify the template using either the template name or ID. For help with creating a launch template, see Creating a Launch Template for an Auto Scaling Group in the *Amazon Elastic Compute Cloud Auto Scaling User Guide*. After the Auto Scaling group is created, update this value directly in the Auto Scaling group using the AWS console or APIs.

> **Note**
>
> If you specify network interfaces in your launch template, you must explicitly set the property `AssociatePublicIpAddress` to "true". If no network interface is specified in the launch template, Amazon GameLift FleetIQ uses your account's default VPC.

Type: LaunchTemplateSpecification object

Required: Yes

MaxSize

The maximum number of instances allowed in the Amazon EC2 Auto Scaling group. During automatic scaling events, Amazon GameLift FleetIQ and EC2 do not scale up the group above this maximum. After the Auto Scaling group is created, update this value directly in the Auto Scaling group using the AWS console or APIs.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

MinSize

The minimum number of instances allowed in the Amazon EC2 Auto Scaling group. During automatic scaling events, Amazon GameLift FleetIQ and Amazon EC2 do not scale down the group below this minimum. In production, this value should be set to at least 1. After the Auto Scaling group is created, update this value directly in the Auto Scaling group using the AWS console or APIs.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

RoleArn

The Amazon Resource Name (ARN) for an IAM role that allows Amazon GameLift to access your Amazon EC2 Auto Scaling groups.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^arn:.*:role\/[\w+=,.@-]+`

Required: Yes

AutoScalingPolicy

Configuration settings to define a scaling policy for the Auto Scaling group that is optimized for game hosting. The scaling policy uses the metric `"PercentUtilizedGameServers"` to maintain a buffer of idle game servers that can immediately accommodate new games and players. After the Auto Scaling group is created, update this value directly in the Auto Scaling group using the AWS console or APIs.

Type: GameServerGroupAutoScalingPolicy object

Required: No

BalancingStrategy

Indicates how Amazon GameLift FleetIQ balances the use of Spot Instances and On-Demand Instances in the game server group. Method options include the following:

- `SPOT_ONLY` - Only Spot Instances are used in the game server group. If Spot Instances are unavailable or not viable for game hosting, the game server group provides no hosting capacity until Spot Instances can again be used. Until then, no new instances are started, and the existing nonviable Spot Instances are terminated (after current gameplay ends) and are not replaced.
- `SPOT_PREFERRED` - (default value) Spot Instances are used whenever available in the game server group. If Spot Instances are unavailable, the game server group continues to provide hosting capacity by falling back to On-Demand Instances. Existing nonviable Spot Instances are terminated (after current gameplay ends) and are replaced with new On-Demand Instances.
- `ON_DEMAND_ONLY` - Only On-Demand Instances are used in the game server group. No Spot Instances are used, even when available, while this balancing strategy is in force.

Type: String

Valid Values: `SPOT_ONLY | SPOT_PREFERRED | ON_DEMAND_ONLY`

Required: No

GameServerProtectionPolicy

A flag that indicates whether instances in the game server group are protected from early termination. Unprotected instances that have active game servers running might be terminated during a scale-down event, causing players to be dropped from the game. Protected instances cannot be terminated while there are active game servers running except in the event of a forced game server group deletion (see). An exception to this is with Spot Instances, which can be terminated by AWS regardless of protection status. This property is set to `NO_PROTECTION` by default.

Type: String

Valid Values: `NO_PROTECTION | FULL_PROTECTION`

Required: No

Tags

A list of labels to assign to the new game server group resource. Tags are developer-defined key-value pairs. Tagging AWS resources is useful for resource management, access management, and cost allocation. For more information, see Tagging AWS Resources in the *AWS General Reference*.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

VpcSubnets

A list of virtual private cloud (VPC) subnets to use with instances in the game server group. By default, all Amazon GameLift FleetIQ-supported Availability Zones are used. You can use this parameter to specify VPCs that you've set up. This property cannot be updated after the game server group is created, and the corresponding Auto Scaling group will always use the property value that is set with this request, even if the Auto Scaling group is updated directly.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Length Constraints: Minimum length of 15. Maximum length of 24.

Pattern: ^subnet-[0-9a-z]+$

Required: No

Response Syntax

```
{
   "GameServerGroup": {
      "AutoScalingGroupArn": "string",
      "BalancingStrategy": "string",
      "CreationTime": number,
      "GameServerGroupArn": "string",
      "GameServerGroupName": "string",
      "GameServerProtectionPolicy": "string",
      "InstanceDefinitions": [
         {
            "InstanceType": "string",
            "WeightedCapacity": "string"
         }
      ],
      "LastUpdatedTime": number,
      "RoleArn": "string",
      "Status": "string",
      "StatusReason": "string",
      "SuspendedActions": [ "string" ]
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameServerGroup

The newly created game server group object, including the new ARN value for the Amazon GameLift FleetIQ game server group and the object's status. The Amazon EC2 Auto Scaling group ARN is initially null, since the group has not yet been created. This value is added once the game server group status reaches ACTIVE.

Type: GameServerGroup object

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

LimitExceededException

The requested operation would cause the resource to exceed the allowed service limit. Resolve the issue before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Create a new game server group

This example creates a game server group and Auto Scaling group that deploys your game server software to Spot instances of two instance types. The game server group is set up to use Spot

Instances only, so if no Spot Instances of these types are available, the game server group will effectively stop starting new game servers until Spot resources are available again. This request also triggers creation of a target-tracking Auto Scaling policy. With this policy, the Auto Scaling group will maintain approximately 75% game server utilization. The 25% of idle capacity enables the game server group to immediately accommodate sudden increases in player demand.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
   "GameServerGroupName": "MegaFrogServers_NA",
   "RoleArn": "arn:aws:iam:123456789012::role/GameLiftGsgRole",
   "MinSize": 1,
   "MaxSize": 1000,
   "GameServerProtectionPolicy": "NO_PROTECTION",
   "BalancingStrategy": "SPOT_ONLY",
   "LaunchTemplate": {
      "LaunchTemplateId": "lt-1234567890abcdef",
   },
   "InstanceDefinitions": [
      {"InstanceType": "c5.xlarge"},
      {"InstanceType": "m5.xlarge"}
   ],
   "AutoScalingPolicy": {
      "TargetTrackingConfiguration": {
         "TargetValue": 75
      }
   }
}

CLI command:

aws gamelift create-game-server-group \
    --game-server-group-name MegaFrogServers_NA \
    --role-arn arn:aws:iam::123456789012:role/GameLiftGSGRole \
    --min-size 1 \
    --max-size 1000 \
    --game-server-protection-policy NO_PROTECTION \
    --balancing-strategy SPOT_ONLY
    --launch-template LaunchTemplateId=lt-012ab345cde6789ff \
```

```
    --instance-definitions '[{"InstanceType": "c5.xlarge"}, {"InstanceType":
 "m5.xlarge"}]' \
        --auto-scaling-policy '{"TargetTrackingConfiguration": {"TargetValue": 75}}'
```

Sample Response

```
{
   "GameServerGroup": {
      "AutoScalingGroupArn": "arn:aws:autoscaling:us-
west-2:123456789012:autoScalingGroup:1111aaaa-22bb-33cc-44dd-5555eeee66ff:autoScalingGroupName/
MegaFrogServers_NA",
      "BalancingStrategy": "SPOT_ONLY",
      "CreationTime": 1496365885.44,
      "GameServerGroupArn": "arn:aws:gamelift:us-west-2::GameServerGroup/
MegaFrogServers_NA",
      "GameServerGroupName": " MegaFrogServers_NA",
      "GameServerProtectionPolicy": "NO_PROTECTION",
      "InstanceDefinitions": [
         {
            "InstanceType": "c5.xlarge",
            "WeightedCapacity": "1"
         }
         {
            "InstanceType": "m5.xlarge",
            "WeightedCapacity": "1"
         }
      ],
      "LastUpdatedTime": 1496365885.44,
      "RoleArn": "arn:aws:iam:123456789012::role/GameLiftGsgRole",
      "Status": "NEW",
      "StatusReason": "",
      "SuspendedActions": []
}
```

Create a new game server group with weighted instances

This example creates a game server group with three weighted instance types. Because a balancing strategy is not defined in this example, the default `"SPOT_PREFERRED"` is used.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
   "GameServerGroupName": "MegaFrogServers_NA",
   "RoleArn": "arn:aws:iam:123456789012::role/GameLiftGsgRole",
   "MinSize": 1,
   "MaxSize": 200,
   "InstanceDefinitions": [
      {
         "InstanceType": "c5.2xlarge",
         "WeightedCapacity": "1"
      },
      {
         "InstanceType": "c5.4xlarge",
         "WeightedCapacity": "2"
      },
      {
         "InstanceType": "c5.24xlarge",
         "WeightedCapacity": "12"
      }
   ],
   "LaunchTemplate": {
      "LaunchTemplateName": "MegaFrogServers"
   }
}

CLI command:

aws gamelift create-game-server-group \
    --game-server-group-name MegaFrogServers_NA \
    --role-arn arn:aws:iam:123456789012::role/GameLiftGsgRole \
    --min-size 1 \
    --max-size 200 \
    --launch-template {"LaunchTemplateName": MegaFrogServers} \
    --instance-definitions '[{"IntanceType":"m5.2xlarge","WeightedCapacity":"1"},
{"InstanceType":"m5.4xlarge","WeightedCapacity":"2"},
{"InstanceType":"m5.24xlarge","WeightedCapacity":"12"}]'
```

Sample Response

```
{
   "GameServerGroup": {
```

```
      "AutoScalingGroupArn": "arn:aws:autoscaling:us-
west-2:123456789012:autoScalingGroup:1111aaaa-22bb-33cc-44dd-5555eeee66ff:autoScalingGroupName/
MegaFrogServers_NA",
      "BalancingStrategy": "SPOT_PREFERRED",
      "CreationTime": 1496365885.44,
      "GameServerGroupArn": "arn:aws:gamelift:us-west-2::GameServerGroup/
MegaFrogServers_NA",
      "GameServerGroupName": " MegaFrogServers_NA",
      "GameServerProtectionPolicy": "NO_PROTECTION",
      "InstanceDefinitions": [
         {
            "InstanceType": "c5.2xlarge",
            "WeightedCapacity": "1"
         },
         {
            "InstanceType": "c5.4xlarge",
            "WeightedCapacity": "2"
         },
         {
            "InstanceType": "c5.24xlarge",
            "WeightedCapacity": "12"
         }
      ],
      "LastUpdatedTime": 1496365885.44,
      "RoleArn": "arn:aws:iam:123456789012::role/GameLiftGsgRole",
      "Status": "NEW",
      "StatusReason": "",
      "SuspendedActions": []
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateGameSession

Creates a multiplayer game session for players in a specific fleet location. This operation prompts an available server process to start a game session and retrieves connection information for the new game session. As an alternative, consider using the Amazon GameLift game session placement feature with StartGameSessionPlacement , which uses the FleetIQ algorithm and queues to optimize the placement process.

When creating a game session, you specify exactly where you want to place it and provide a set of game session configuration settings. The target fleet must be in `ACTIVE` status.

You can use this operation in the following ways:

- To create a game session on an instance in a fleet's home Region, provide a fleet or alias ID along with your game session configuration.
- To create a game session on an instance in a fleet's remote location, provide a fleet or alias ID and a location name, along with your game session configuration.
- To create a game session on an instance in an Anywhere fleet, specify the fleet's custom location.

If successful, Amazon GameLift initiates a workflow to start a new game session and returns a `GameSession` object containing the game session configuration and status. When the game session status is `ACTIVE`, it is updated with connection information and you can create player sessions for the game session. By default, newly created game sessions are open to new players. You can restrict new player access by using UpdateGameSession to change the game session's player session creation policy.

Amazon GameLift retains logs for active for 14 days. To access the logs, call GetGameSessionLogUrl to download the log files.

Available in Amazon GameLift Local.

Learn more

Start a game session

All APIs by task

Request Syntax

```
{
```

```
   "AliasId": "string",
   "CreatorId": "string",
   "FleetId": "string",
   "GameProperties": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "GameSessionData": "string",
   "GameSessionId": "string",
   "IdempotencyToken": "string",
   "Location": "string",
   "MaximumPlayerSessionCount": number,
   "Name": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

MaximumPlayerSessionCount

The maximum number of players that can be connected simultaneously to the game session.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

AliasId

A unique identifier for the alias associated with the fleet to create a game session in. You can use either the alias ID or ARN value. Each request must reference either a fleet ID or alias ID, but not both.

Type: String

Pattern: `^alias-\S+|^arn:.*:alias\/alias-\S+`

Required: No

CreatorId

A unique identifier for a player or entity creating the game session.

If you add a resource creation limit policy to a fleet, the `CreateGameSession` operation requires a `CreatorId`. Amazon GameLift limits the number of game session creation requests with the same `CreatorId` in a specified time period.

If you your fleet doesn't have a resource creation limit policy and you provide a `CreatorId` in your `CreateGameSession` requests, Amazon GameLift limits requests to one request per `CreatorId` per second.

To not limit `CreateGameSession` requests with the same `CreatorId`, don't provide a `CreatorId` in your `CreateGameSession` request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

FleetId

A unique identifier for the fleet to create a game session in. You can use either the fleet ID or ARN value. Each request must reference either a fleet ID or alias ID, but not both.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: No

GameProperties

A set of key-value pairs that can store custom data in a game session. For example: `{"Key": "difficulty", "Value": "novice"}`. For an example, see Create a game session with custom properties.

Type: Array of GameProperty objects

Array Members: Maximum number of 16 items.

Required: No

GameSessionData

A set of custom game session properties, formatted as a single string value. This data is passed to a game server process with a request to start a new game session (see Start a Game Session).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 262144.

Required: No

GameSessionId

This parameter is deprecated. Use `IdempotencyToken` instead.

Custom string that uniquely identifies a request for a new game session. Maximum token length is 48 characters. If provided, this string is included in the new game session's ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9-]+`

Required: No

IdempotencyToken

Custom string that uniquely identifies the new game session request. This is useful for ensuring that game session requests with the same idempotency token are processed only once. Subsequent requests with the same string return the original `GameSession` object, with an updated status. Maximum token length is 48 characters. If provided, this string is included in the new game session's ID. A game session ARN has the following format: `arn:aws:gamelift:<region>::gamesession/<fleet ID>/<custom ID string or idempotency token>`. Idempotency tokens remain in use for 30 days after a game session has ended; game session objects are retained for this time period and then deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9-]+`

Required: No

Location

A fleet's remote location to place the new game session in. If this parameter is not set, the new game session is placed in the fleet's home Region. Specify a remote location with an AWS Region code such as `us-west-2`. When using an Anywhere fleet, this parameter is required and must be set to the Anywhere fleet's custom location.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

Name

A descriptive label that is associated with a game session. Session names do not need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "GameSession": {
      "CreationTime": number,
      "CreatorId": "string",
      "CurrentPlayerSessionCount": number,
      "DnsName": "string",
      "FleetArn": "string",
      "FleetId": "string",
```

```
      "GameProperties": [
         {
            "Key": "string",
            "Value": "string"
         }
      ],
      "GameSessionData": "string",
      "GameSessionId": "string",
      "IpAddress": "string",
      "Location": "string",
      "MatchmakerData": "string",
      "MaximumPlayerSessionCount": number,
      "Name": "string",
      "PlayerSessionCreationPolicy": "string",
      "Port": number,
      "Status": "string",
      "StatusReason": "string",
      "TerminationTime": number
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameSession

Object that describes the newly created game session record.

Type: GameSession object

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

HTTP Status Code: 400

FleetCapacityExceededException

The specified fleet has no available instances to fulfill a `CreateGameSession` request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 400

IdempotentParameterMismatchException

A game session with this custom ID string already exists in this fleet. Resolve this conflict before retrying this request.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidFleetStatusException

The requested operation would cause a conflict with the current state of a resource associated with the request and/or the fleet. Resolve the conflict before retrying.

HTTP Status Code: 400

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

LimitExceededException

The requested operation would cause the resource to exceed the allowed service limit. Resolve the issue before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TerminalRoutingStrategyException

The service is unable to resolve the routing for a particular alias because it has a terminal `RoutingStrategy` associated with it. The message returned in this exception is the message defined in the routing strategy itself. Such requests should only be retried if the routing strategy for the specified alias is modified.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateGameSessionQueue

Creates a placement queue that processes requests for new game sessions. A queue uses FleetIQ algorithms to determine the best placement locations and find an available game server there, then prompts the game server process to start a new game session.

A game session queue is configured with a set of destinations (Amazon GameLift fleets or aliases), which determine the locations where the queue can place new game sessions. These destinations can span multiple fleet types (Spot and On-Demand), instance types, and AWS Regions. If the queue includes multi-location fleets, the queue is able to place game sessions in all of a fleet's remote locations. You can opt to filter out individual locations if needed.

The queue configuration also determines how FleetIQ selects the best available placement for a new game session. Before searching for an available game server, FleetIQ first prioritizes the queue's destinations and locations, with the best placement locations on top. You can set up the queue to use the FleetIQ default prioritization or provide an alternate set of priorities.

To create a new queue, provide a name, timeout value, and a list of destinations. Optionally, specify a sort configuration and/or a filter, and define a set of latency cap policies. You can also include the ARN for an Amazon Simple Notification Service (SNS) topic to receive notifications of game session placement activity. Notifications using SNS or CloudWatch events is the preferred way to track placement activity.

If successful, a new `GameSessionQueue` object is returned with an assigned queue ARN. New game session requests, which are submitted to queue with StartGameSessionPlacement or StartMatchmaking, reference a queue's name or ARN.

Learn more

Design a game session queue

Create a game session queue

Related actions

CreateGameSessionQueue | DescribeGameSessionQueues | UpdateGameSessionQueue | DeleteGameSessionQueue | All APIs by task

Request Syntax

```
{
```

```
   "CustomEventData": "string",
   "Destinations": [
      {
         "DestinationArn": "string"
      }
   ],
   "FilterConfiguration": {
      "AllowedLocations": [ "string" ]
   },
   "Name": "string",
   "NotificationTarget": "string",
   "PlayerLatencyPolicies": [
      {
         "MaximumIndividualPlayerLatencyMilliseconds": number,
         "PolicyDurationSeconds": number
      }
   ],
   "PriorityConfiguration": {
      "LocationOrder": [ "string" ],
      "PriorityOrder": [ "string" ]
   },
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "TimeoutInSeconds": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Name

A descriptive label that is associated with game session queue. Queue names must be unique within each Region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-]+`

Required: Yes

CustomEventData

Information to be added to all events that are related to this game session queue.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: `[\s\S]*`

Required: No

Destinations

A list of fleets and/or fleet aliases that can be used to fulfill game session placement requests in the queue. Destinations are identified by either a fleet ARN or a fleet alias ARN, and are listed in order of placement preference.

Type: Array of GameSessionQueueDestination objects

Required: No

FilterConfiguration

A list of locations where a queue is allowed to place new game sessions. Locations are specified in the form of AWS Region codes, such as `us-west-2`. If this parameter is not set, game sessions can be placed in any queue location.

Type: FilterConfiguration object

Required: No

NotificationTarget

An SNS topic ARN that is set up to receive game session placement notifications. See Setting up notifications for game session placement.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 300.

Pattern: `[a-zA-Z0-9:_-]*(\.fifo)?`

Required: No

PlayerLatencyPolicies

A set of policies that act as a sliding cap on player latency. FleetIQ works to deliver low latency for most players in a game session. These policies ensure that no individual player can be placed into a game with unreasonably high latency. Use multiple policies to gradually relax latency requirements a step at a time. Multiple policies are applied based on their maximum allowed latency, starting with the lowest value.

Type: Array of PlayerLatencyPolicy objects

Required: No

PriorityConfiguration

Custom settings to use when prioritizing destinations and locations for game session placements. This configuration replaces the FleetIQ default prioritization process. Priority types that are not explicitly named will be automatically applied at the end of the prioritization process.

Type: PriorityConfiguration object

Required: No

Tags

A list of labels to assign to the new game session queue resource. Tags are developer-defined key-value pairs. Tagging AWS resources are useful for resource management, access management and cost allocation. For more information, see Tagging AWS Resources in the *AWS General Reference*.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

TimeoutInSeconds

The maximum time, in seconds, that a new game session placement request remains in the queue. When a request exceeds this time, the game session placement changes to a `TIMED_OUT` status. By default, this property is set to `600`.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

Response Syntax

```
{
   "GameSessionQueue": {
      "CustomEventData": "string",
      "Destinations": [
         {
            "DestinationArn": "string"
         }
      ],
      "FilterConfiguration": {
         "AllowedLocations": [ "string" ]
      },
      "GameSessionQueueArn": "string",
      "Name": "string",
      "NotificationTarget": "string",
      "PlayerLatencyPolicies": [
         {
            "MaximumIndividualPlayerLatencyMilliseconds": number,
            "PolicyDurationSeconds": number
         }
      ],
      "PriorityConfiguration": {
         "LocationOrder": [ "string" ],
         "PriorityOrder": [ "string" ]
      },
      "TimeoutInSeconds": number
```

```
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameSessionQueue

An object that describes the newly created game session queue.

Type: GameSessionQueue object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

LimitExceededException

The requested operation would cause the resource to exceed the allowed service limit. Resolve the issue before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Create and configure a game session queue

In this example, we want to create a game session queue with two single-location destinations, each residing in different Regions. We configure the queue so that requests for new game sessions expire after 10 minutes. The queue will process game session requests with player latency data, so we provide a set of latency cap polices that initially start at 100mm and then relax to 200ms after one minute. We opt to use the default sort approach for FleetIQ.

Sample Request

```
{
    "Name": "matchmaker-queue",
    "Destinations": [
        { "DestinationArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-1a2b3c4d-5e6f-7a8b-9c0d-1e2f3a4b5c6d" },
        { "DestinationArn": "arn:aws:gamelift:sa-east-1::fleet/
fleet-5c6d3c4d-5e6f-7a8b-9a0b-1e2f3a4b5a2b" }
    ],
    "NotificationTarget": "arn:aws:sns:us-west-2:111122223333:My_Placement_SNS_Topic",
    "PlayerLatencyPolicies": [
        { "MaximumIndividualPlayerLatencyMilliseconds": 200 },
        { "MaximumIndividualPlayerLatencyMilliseconds": 100, "PolicyDurationSeconds":
 60 }
    ],
    "TimeoutInSeconds": 600
```

```
}
```

Sample Response

```
{
    "GameSessionQueue": {
        "Name": "matchmaker-queue",
        "GameSessionQueueArn": "arn:aws:gamelift:us-
west-2:111122223333:gamesessionqueue/matchmaker-queue",
        "TimeoutInSeconds": 600,
        "NotificationTarget": "arn:aws:sns:us-
west-2:111122223333:My_Placement_SNS_Topic",
        "PlayerLatencyPolicies": [
            {
                "MaximumIndividualPlayerLatencyMilliseconds": 100,
                "PolicyDurationSeconds": 60
            },
            {
                "MaximumIndividualPlayerLatencyMilliseconds": 200
            }
        ],
        "Destinations": [
            {"DestinationArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-1a2b3c4d-5e6f-7a8b-9c0d-1e2f3a4b5c6d"},
            {"DestinationArn": "arn:aws:gamelift:us-east-1::fleet/
fleet-5c6d3c4d-5e6f-7a8b-9c0d-1e2f3a4b5a2b"}
        ]
    }
}
```

Create a game session queue with multi-location fleets

In this example, we want to create a game session queue to place game sessions with two multi-location Spot fleets and one single-location On-Demand fleet. The multi-location fleets have remote locations in (`us-west-1`, `us-east-2`, `sa-east-1`).

We also want to change how FleetIQ prioritizes destinations and locations for placement. We opt to have FleetIQ prioritize by location first (with a custom location order provided), and then by destination list order. Based on our priority configuration, the queue will always try to place game sessions in the `us-west-1` remote location of the first listed destination fleet. If no game servers are available there, the queue will try to place in the `us-west-1` home Region of the second listed destination fleet, and so on.

Sample Request

```
{
    "Name": "matchmaker-queue",
    "Destinations": [
        { "DestinationArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-1a2b3c4d-5e6f-7a8b-9c0d-1e2f3a4b5c6d" },
        { "DestinationArn": "arn:aws:gamelift:us-west-1::fleet/
fleet-2a3b4c5d-6e7f-8a9b-0c1d-2e3f4a5b6c7d" },
        { "DestinationArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-5c6d3c4d-5e6f-7a8b-9a0b-1e2f3a4b5a2b" }
    ],
    "NotificationTarget": "arn:aws:sns:us-west-2:111122223333:My_Placement_SNS_Topic",
    "PriorityConfiguration": {
        "PriorityOrder": "LOCATION,DESTINATION",
        "LocationOrder": "us-west-1,us-west-2,us-east-2, sa-east-1"
    },
    "TimeoutInSeconds": 600
}
```

Sample Response

```
{
    "GameSessionQueue": {
        "Name": "matchmaker-queue",
        "GameSessionQueueArn": "arn:aws:gamelift:us-
west-2:111122223333:gamesessionqueue/matchmaker-queue",
        "TimeoutInSeconds": 600,
        "Destinations": [
            { "DestinationArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-1a2b3c4d-5e6f-7a8b-9c0d-1e2f3a4b5c6d" },
            { "DestinationArn": "arn:aws:gamelift:us-west-1::fleet/
fleet-2a3b4c5d-6e7f-8a9b-0c1d-2e3f4a5b6c7d" },
            { "DestinationArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-5c6d3c4d-5e6f-7a8b-9a0b-1e2f3a4b5a2b" }
        ],
        "PriorityConfiguration": {
            "PriorityOrder": "LOCATION,DESTINATION",
            "LocationOrder": "us-west-1,us-west-2,us-east-2, sa-east-1"
        },
        "NotificationTarget": "arn:aws:sns:us-
west-2:111122223333:My_Placement_SNS_Topic",
    }
```

```
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateLocation

Creates a custom location for use in an Anywhere fleet.

Request Syntax

```
{
   "LocationName": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

LocationName

A descriptive name for the custom location.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 64.

Pattern: `^custom-[A-Za-z0-9\-]+`

Required: Yes

Tags

A list of labels to assign to the new matchmaking configuration resource. Tags are developer-defined key-value pairs. Tagging AWS resources are useful for resource management, access

management and cost allocation. For more information, see Tagging AWS Resources in the *AWS General Rareference*.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Syntax

```
{
   "Location": {
      "LocationArn": "string",
      "LocationName": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Location

The details of the custom location you created.

Type: LocationModel object

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

LimitExceededException

The requested operation would cause the resource to exceed the allowed service limit. Resolve the issue before retrying.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateMatchmakingConfiguration

Defines a new matchmaking configuration for use with FlexMatch. Whether your are using FlexMatch with Amazon GameLift hosting or as a standalone matchmaking service, the matchmaking configuration sets out rules for matching players and forming teams. If you're also using Amazon GameLift hosting, it defines how to start game sessions for each match. Your matchmaking system can use multiple configurations to handle different game scenarios. All matchmaking requests identify the matchmaking configuration to use and provide player attributes consistent with that configuration.

To create a matchmaking configuration, you must provide the following: configuration name and FlexMatch mode (with or without Amazon GameLift hosting); a rule set that specifies how to evaluate players and find acceptable matches; whether player acceptance is required; and the maximum time allowed for a matchmaking attempt. When using FlexMatch with Amazon GameLift hosting, you also need to identify the game session queue to use when starting a game session for the match.

In addition, you must set up an Amazon Simple Notification Service topic to receive matchmaking notifications. Provide the topic ARN in the matchmaking configuration.

Learn more

Design a FlexMatch matchmaker

Set up FlexMatch event notification

Request Syntax

```
{
   "AcceptanceRequired": boolean,
   "AcceptanceTimeoutSeconds": number,
   "AdditionalPlayerCount": number,
   "BackfillMode": "string",
   "CustomEventData": "string",
   "Description": "string",
   "FlexMatchMode": "string",
   "GameProperties": [
      {
         "Key": "string",
         "Value": "string"
```

```
      }
   ],
   "GameSessionData": "string",
   "GameSessionQueueArns": [ "string" ],
   "Name": "string",
   "NotificationTarget": "string",
   "RequestTimeoutSeconds": number,
   "RuleSetName": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

AcceptanceRequired

A flag that determines whether a match that was created with this configuration must be accepted by the matched players. To require acceptance, set to TRUE. With this option enabled, matchmaking tickets use the status REQUIRES_ACCEPTANCE to indicate when a completed potential match is waiting for player acceptance.

Type: Boolean

Required: Yes

Name

A unique identifier for the matchmaking configuration. This name is used to identify the configuration associated with a matchmaking request or ticket.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]*`

Required: Yes

RequestTimeoutSeconds

The maximum duration, in seconds, that a matchmaking ticket can remain in process before timing out. Requests that fail due to timing out can be resubmitted as needed.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 43200.

Required: Yes

RuleSetName

A unique identifier for the matchmaking rule set to use with this configuration. You can use either the rule set name or ARN value. A matchmaking configuration can only use rule sets that are defined in the same Region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]*|^arn:.*:matchmakingruleset\/[a-zA-Z0-9-\.]*`

Required: Yes

AcceptanceTimeoutSeconds

The length of time (in seconds) to wait for players to accept a proposed match, if acceptance is required.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 600.

Required: No

AdditionalPlayerCount

The number of player slots in a match to keep open for future players. For example, if the configuration's rule set specifies a match for a single 10-person team, and the additional player count is set to 2, 10 players will be selected for the match and 2 more player slots will be open for future players. This parameter is not used if `FlexMatchMode` is set to `STANDALONE`.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

BackfillMode

The method used to backfill game sessions that are created with this matchmaking configuration. Specify `MANUAL` when your game manages backfill requests manually or does not use the match backfill feature. Specify `AUTOMATIC` to have Amazon GameLift create a backfill request whenever a game session has one or more open slots. Learn more about manual and automatic backfill in Backfill Existing Games with FlexMatch. Automatic backfill is not available when `FlexMatchMode` is set to `STANDALONE`.

Type: String

Valid Values: `AUTOMATIC | MANUAL`

Required: No

CustomEventData

Information to be added to all events related to this matchmaking configuration.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

Description

A human-readable description of the matchmaking configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

FlexMatchMode

Indicates whether this matchmaking configuration is being used with Amazon GameLift hosting or as a standalone matchmaking solution.

- **STANDALONE** - FlexMatch forms matches and returns match information, including players and team assignments, in a MatchmakingSucceeded event.
- **WITH_QUEUE** - FlexMatch forms matches and uses the specified Amazon GameLift queue to start a game session for the match.

Type: String

Valid Values: `STANDALONE | WITH_QUEUE`

Required: No

GameProperties

A set of key-value pairs that can store custom data in a game session. For example: `{"Key": "difficulty", "Value": "novice"}`. This information is added to the new `GameSession` object that is created for a successful match. This parameter is not used if `FlexMatchMode` is set to `STANDALONE`.

Type: Array of GameProperty objects

Array Members: Maximum number of 16 items.

Required: No

GameSessionData

A set of custom game session properties, formatted as a single string value. This data is passed to a game server process with a request to start a new game session (see Start a Game Session). This information is added to the new `GameSession` object that is created for a successful match. This parameter is not used if `FlexMatchMode` is set to `STANDALONE`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 4096.

Required: No

GameSessionQueueArns

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift game session queue resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::gamesessionqueue/<queue name>`. Queues can be located in any Region. Queues are used to start new Amazon GameLift-hosted game sessions for matches that are created with this matchmaking configuration. If `FlexMatchMode` is set to `STANDALONE`, do not set this parameter.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9:/-]+`

Required: No

NotificationTarget

An SNS topic ARN that is set up to receive matchmaking notifications. See Setting up notifications for matchmaking for more information.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 300.

Pattern: `[a-zA-Z0-9:_/-]*(.fifo)?`

Required: No

Tags

A list of labels to assign to the new matchmaking configuration resource. Tags are developer-defined key-value pairs. Tagging AWS resources are useful for resource management, access management and cost allocation. For more information, see Tagging AWS Resources in the *AWS General Reference*.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Syntax

```
{
   "Configuration": {
      "AcceptanceRequired": boolean,
      "AcceptanceTimeoutSeconds": number,
      "AdditionalPlayerCount": number,
      "BackfillMode": "string",
      "ConfigurationArn": "string",
      "CreationTime": number,
      "CustomEventData": "string",
      "Description": "string",
      "FlexMatchMode": "string",
      "GameProperties": [
         {
            "Key": "string",
            "Value": "string"
         }
      ],
      "GameSessionData": "string",
      "GameSessionQueueArns": [ "string" ],
      "Name": "string",
      "NotificationTarget": "string",
      "RequestTimeoutSeconds": number,
      "RuleSetArn": "string",
      "RuleSetName": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Configuration

Object that describes the newly created matchmaking configuration.

Type: MatchmakingConfiguration object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

LimitExceededException

The requested operation would cause the resource to exceed the allowed service limit. Resolve the issue before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

Examples

Create a matchmaking configuration for use with GameLift managed hosting

The following example creates a matchmaking configuration for a game that is being hosted on Amazon GameLift servers, identifying a game session queue and providing a set of game properties to be passed on to new game sessions. Player acceptance is required, with a 60-second timeout, and auto-backfill is enabled.

Sample Request

```
{
    "Name": "MM-1v1",
    "Description": "Head-to-head sprint format",
    "RequestTimeoutSeconds": 120,
    "RuleSetName": "mm_one_v_one",
    "NotificationTarget": "arn:aws:sns:us-
west-2:111122223333:My_Matchmaking_SNS_Topic",
    "FlexMatchMode": "WITH_QUEUE",
    "GameSessionQueueArns": "arn:aws:gamelift:us-west-2:111122223333:gamesessionqueue/
My_Game_Session_Queue_One",
    "AcceptanceRequired": true,
    "AcceptanceTimeoutSeconds": 60,
    "BackfillMode": "AUTOMATIC",
    "AdditionalPlayerCount": 8,
    "GameProperties": [
      {
          "Key": "level",
          "Value": "10"
      },
      {
          "Key": "difficulty",
          "Value": "hard"
      }
    ]
}
```

Sample Response

```
{
   "Configuration": {
      "AcceptanceRequired": true,
```

```
      "AcceptanceTimeoutSeconds": 60,
      "AdditionalPlayerCount": 8,
      "BackfillMode": "AUTOMATIC",
      "ConfigurationArn": "arn:aws:gamelift:us-
west-2:111122223333:matchmakingconfiguration/MM-1v1",
      "CreationTime": 1496365885.44,
      "Description": "Head-to-head sprint format",
      "FlexMatchMode": "WITH_QUEUE",
      "GameProperties": [
        {
            "Key": "level",
            "Value": "10"
        },
        {
            "Key": "difficulty",
            "Value": "hard"
        }
      ],
      "GameSessionQueueArns": "arn:aws:gamelift:us-
west-2:111122223333:gamesessionqueue/My_Game_Session_Queue_One",
      "Name": "MM-1v1",
      "NotificationTarget": "arn:aws:sns:us-
west-2:111122223333:My_Matchmaking_SNS_Topic",
      "RequestTimeoutSeconds": 120,
      "RuleSetArn": "arn:aws:gamelift:us-west-2:111122223333:matchmakingruleset/
mm_one_v_one",
      "RuleSetName": "mm_one_v_one"
   }
}
}
```

Create a matchmaking configuration for a standalone FlexMatch system

The following example creates a matchmaking configuration for a game that is hosted on resources other than Amazon GameLift game servers. This includes games that are hosted on Amazon EC2 with Amazon GameLift FleetIQ. This configuration omits the game session queue, game properties, and additional player count. Player acceptance is required, with a 60-second timeout.

Sample Request

```
{
    "Name": "MM-1v1",
```

```
    "Description": "Head-to-head sprint format",
    "RequestTimeoutSeconds": 120,
    "RuleSetName": "mm_one_v_one",
    "NotificationTarget": "arn:aws:sns:us-
west-2:111122223333:My_Matchmaking_SNS_Topic",
    "FlexMatchMode": "STANDALONE",
    "AcceptanceRequired": true,
    "AcceptanceTimeoutSeconds": 60,
    "BackfillMode": "MANUAL"
}
```

Sample Response

```
{
   "Configuration": {
      "AcceptanceRequired": true,
      "AcceptanceTimeoutSeconds": 60,
      "AdditionalPlayerCount": 0,
      "BackfillMode": "MANUAL",
      "ConfigurationArn": "arn:aws:gamelift:us-
west-2:111122223333:matchmakingconfiguration/MM-1v1",
      "CreationTime": 1496365885.44,
      "Description": "Head-to-head sprint format",
      "FlexMatchMode": "STANDALONE",
      "GameSessionQueueArns": "",
      "Name": "MM-1v1",
      "NotificationTarget": "arn:aws:sns:us-
west-2:111122223333:My_Matchmaking_SNS_Topic",
      "RequestTimeoutSeconds": 120,
      "RuleSetArn": "arn:aws:gamelift:us-west-2:111122223333:matchmakingruleset/
mm_one_v_one",
      "RuleSetName": "mm_one_v_one"
   }
}
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface

- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateMatchmakingRuleSet

Creates a new rule set for FlexMatch matchmaking. A rule set describes the type of match to create, such as the number and size of teams. It also sets the parameters for acceptable player matches, such as minimum skill level or character type.

To create a matchmaking rule set, provide unique rule set name and the rule set body in JSON format. Rule sets must be defined in the same Region as the matchmaking configuration they are used with.

Since matchmaking rule sets cannot be edited, it is a good idea to check the rule set syntax using ValidateMatchmakingRuleSet before creating a new rule set.

Learn more

- Build a rule set
- Design a matchmaker
- Matchmaking with FlexMatch

Request Syntax

```
{
   "Name": "string",
   "RuleSetBody": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Name

A unique identifier for the matchmaking rule set. A matchmaking configuration identifies the rule set it uses by this name value. Note that the rule set name is different from the optional `name` field in the rule set body.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]*`

Required: Yes

RuleSetBody

A collection of matchmaking rules, formatted as a JSON string. Comments are not allowed in JSON, but most elements support a description field.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65535.

Required: Yes

Tags

A list of labels to assign to the new matchmaking rule set resource. Tags are developer-defined key-value pairs. Tagging AWS resources are useful for resource management, access management and cost allocation. For more information, see Tagging AWS Resources in the *AWS General Reference*.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Response Syntax

```
{
   "RuleSet": {
      "CreationTime": number,
      "RuleSetArn": "string",
      "RuleSetBody": "string",
      "RuleSetName": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

RuleSet

The newly created matchmaking rule set.

Type: MatchmakingRuleSet object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

LimitExceededException

The requested operation would cause the resource to exceed the allowed service limit. Resolve the issue before retrying.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreatePlayerSession

Reserves an open player slot in a game session for a player. New player sessions can be created in any game session with an open slot that is in `ACTIVE` status and has a player creation policy of `ACCEPT_ALL`. You can add a group of players to a game session with CreatePlayerSessions .

To create a player session, specify a game session ID, player ID, and optionally a set of player data.

If successful, a slot is reserved in the game session for the player and a new `PlayerSessions` object is returned with a player session ID. The player references the player session ID when sending a connection request to the game session, and the game server can use it to validate the player reservation with the Amazon GameLift service. Player sessions cannot be updated.

The maximum number of players per game session is 200. It is not adjustable.

Related actions

All APIs by task

Request Syntax

```
{
   "GameSessionId": "string",
   "PlayerData": "string",
   "PlayerId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameSessionId

A unique identifier for the game session to add a player to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9:/-]+`

Required: Yes

PlayerId

A unique identifier for a player. Player IDs are developer-defined.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

PlayerData

Developer-defined information related to a player. Amazon GameLift does not use this data, so it can be formatted as needed for use in the game.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

Response Syntax

```
{
   "PlayerSession": {
      "CreationTime": number,
      "DnsName": "string",
      "FleetArn": "string",
      "FleetId": "string",
      "GameSessionId": "string",
      "IpAddress": "string",
      "PlayerData": "string",
      "PlayerId": "string",
      "PlayerSessionId": "string",
      "Port": number,
      "Status": "string",
      "TerminationTime": number
```

```
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

PlayerSession

Object that describes the newly created player session record.

Type: PlayerSession object

Errors

For information about the errors that are common to all actions, see Common Errors.

GameSessionFullException

The game instance is currently full and cannot allow the requested player(s) to join. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidGameSessionStatusException

The requested operation would cause a conflict with the current state of a resource associated with the request and/or the game instance. Resolve the conflict before retrying.

HTTP Status Code: 400

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TerminalRoutingStrategyException

The service is unable to resolve the routing for a particular alias because it has a terminal `RoutingStrategy` associated with it. The message returned in this exception is the message defined in the routing strategy itself. Such requests should only be retried if the routing strategy for the specified alias is modified.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreatePlayerSessions

Reserves open slots in a game session for a group of players. New player sessions can be created in any game session with an open slot that is in `ACTIVE` status and has a player creation policy of `ACCEPT_ALL`. To add a single player to a game session, use CreatePlayerSession

To create player sessions, specify a game session ID and a list of player IDs. Optionally, provide a set of player data for each player ID.

If successful, a slot is reserved in the game session for each player, and new `PlayerSession` objects are returned with player session IDs. Each player references their player session ID when sending a connection request to the game session, and the game server can use it to validate the player reservation with the Amazon GameLift service. Player sessions cannot be updated.

The maximum number of players per game session is 200. It is not adjustable.

Related actions

All APIs by task

Request Syntax

```
{
   "GameSessionId": "string",
   "PlayerDataMap": {
      "string" : "string"
   },
   "PlayerIds": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameSessionId

A unique identifier for the game session to add players to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9:/-]+`

Required: Yes

PlayerIds

List of unique identifiers for the players to be added.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 25 items.

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

PlayerDataMap

Map of string pairs, each specifying a player ID and a set of developer-defined information related to the player. Amazon GameLift does not use this data, so it can be formatted as needed for use in the game. Any player data strings for player IDs that are not included in the `PlayerIds` parameter are ignored.

Type: String to string map

Key Length Constraints: Minimum length of 1. Maximum length of 1024.

Value Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

Response Syntax

```
{
   "PlayerSessions": [
      {
```

```
            "CreationTime": number,
            "DnsName": "string",
            "FleetArn": "string",
            "FleetId": "string",
            "GameSessionId": "string",
            "IpAddress": "string",
            "PlayerData": "string",
            "PlayerId": "string",
            "PlayerSessionId": "string",
            "Port": number,
            "Status": "string",
            "TerminationTime": number
        }
    ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

PlayerSessions

A collection of player session objects created for the added players.

Type: Array of PlayerSession objects

Errors

For information about the errors that are common to all actions, see Common Errors.

GameSessionFullException

The game instance is currently full and cannot allow the requested player(s) to join. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidGameSessionStatusException

The requested operation would cause a conflict with the current state of a resource associated with the request and/or the game instance. Resolve the conflict before retrying.

HTTP Status Code: 400

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TerminalRoutingStrategyException

The service is unable to resolve the routing for a particular alias because it has a terminal `RoutingStrategy` associated with it. The message returned in this exception is the message defined in the routing strategy itself. Such requests should only be retried if the routing strategy for the specified alias is modified.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateScript

Creates a new script record for your Realtime Servers script. Realtime scripts are JavaScript that provide configuration settings and optional custom game logic for your game. The script is deployed when you create a Realtime Servers fleet to host your game sessions. Script logic is executed during an active game session.

To create a new script record, specify a script name and provide the script file(s). The script files and all dependencies must be zipped into a single file. You can pull the zip file from either of these locations:

- A locally available directory. Use the *ZipFile* parameter for this option.
- An Amazon Simple Storage Service (Amazon S3) bucket under your AWS account. Use the *StorageLocation* parameter for this option. You'll need to have an Identity Access Management (IAM) role that allows the Amazon GameLift service to access your S3 bucket.

If the call is successful, a new script record is created with a unique script ID. If the script file is provided as a local file, the file is uploaded to an Amazon GameLift-owned S3 bucket and the script record's storage location reflects this location. If the script file is provided as an S3 bucket, Amazon GameLift accesses the file at this storage location as needed for deployment.

Learn more

Amazon GameLift Realtime Servers

Set Up a Role for Amazon GameLift Access

Related actions

All APIs by task

Request Syntax

```
{
   "Name": "string",
   "StorageLocation": {
      "Bucket": "string",
      "Key": "string",
      "ObjectVersion": "string",
      "RoleArn": "string"
```

```
   },
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "Version": "string",
   "ZipFile": blob
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Name

A descriptive label that is associated with a script. Script names don't need to be unique. You can use UpdateScript to change this value later.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

StorageLocation

The location of the Amazon S3 bucket where a zipped file containing your Realtime scripts is stored. The storage location must specify the Amazon S3 bucket name, the zip file name (the "key"), and a role ARN that allows Amazon GameLift to access the Amazon S3 storage location. The S3 bucket must be in the same Region where you want to create a new script. By default, Amazon GameLift uploads the latest version of the zip file; if you have S3 object versioning turned on, you can use the `ObjectVersion` parameter to specify an earlier version.

Type: S3Location object

Required: No

Tags

A list of labels to assign to the new script resource. Tags are developer-defined key-value pairs. Tagging AWS resources are useful for resource management, access management and cost allocation. For more information, see Tagging AWS Resources in the *AWS General Reference*. Once the resource is created, you can use TagResource, UntagResource, and ListTagsForResource to add, remove, and view tags. The maximum tag limit may be lower than stated. See the AWS General Reference for actual tagging limits.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: No

Version

Version information associated with a build or script. Version strings don't need to be unique. You can use UpdateScript to change this value later.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

ZipFile

A data object containing your Realtime scripts and dependencies as a zip file. The zip file can have one or multiple files. Maximum size of a zip file is 5 MB.

When using the AWS CLI tool to create a script, this parameter is set to the zip file name. It must be prepended with the string "fileb://" to indicate that the file data is a binary object. For example: `--zip-file fileb://myRealtimeScript.zip`.

Type: Base64-encoded binary data object

Length Constraints: Maximum length of 5000000.

Required: No

Response Syntax

```
{
   "Script": {
      "CreationTime": number,
      "Name": "string",
      "ScriptArn": "string",
      "ScriptId": "string",
      "SizeOnDisk": number,
      "StorageLocation": {
         "Bucket": "string",
         "Key": "string",
         "ObjectVersion": "string",
         "RoleArn": "string"
      },
      "Version": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Script

The newly created script record with a unique script ID and ARN. The new script's storage location reflects an Amazon S3 location: (1) If the script was uploaded from an S3 bucket under your account, the storage location reflects the information that was provided in the *CreateScript* request; (2) If the script file was uploaded from a local zip file, the storage location reflects an S3 location controls by the Amazon GameLift service.

Type: Script object

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Create a script from a local zip file

This example creates a script record and uploads a Realtime script from a zip file that is stored locally.

Sample Request

```
{
```

```
    "Name": "My_Realtime_Script_1",
    "Version": "1.0.1",
    "ZipFile": <zip file data>
}

CLI syntax:

aws gamelift create-script
    --name "My_Realtime_Script_1"
    --script-version "1.0.1"
    --zip-file fileb://myrealtime_script.zip
```

Sample Response

```
{
    "Script": {
        "CreationTime": 1496708916.18,
        "Name": "My_Realtime_Script_1",
        "ScriptArn": "arn:aws:gamelift:us-west-2::script/
script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "SizeOnDisk": 9000,
        "StorageLocation": {
            "Bucket": "prod-gamescale-scripts-us-west-2",
             "Key": "123456789012/script-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
        },
        "Version": "1.0.1"
    }
}
```

Create a script with a file in Amazon S3

This example creates a script record and uploads a Realtime server script from a zip file that is stored in an Amazon S3 account.

Sample Request

```
{
    "Name": "My_Realtime_Script_2",
    "Version": "12345.678",
    "StorageLocation": {
        "Bucket": "my_realtime_script_files",
```

```
        "Key": "myRealtimeScript.zip",
        "RoleArn": "arn:aws:iam::111122223333:role/GameLiftAccess"
    }
}

CLI syntax:

aws gamelift create-script
 --name "My_Realtime_Script_2"
 --script-version "12345.678"
 --storage-location
  "Bucket=my_realtime_script_files,
  Key=myRealtimeScript.zip,
  RoleArn=arn:aws:iam::123456789012:role/GameLiftAccess"
```

Sample Response

```
{
    "Script": {
        "CreationTime": 1496708916.18,
        "Name": "My_Realtime_Script_2",
        "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "ScriptArn": "arn:aws:gamelift:us-west-2::script/
script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "SizeOnDisk": 0,
        "StorageLocation": {
            "Bucket": "my_realtime_script_files",
             "Key": "myRealtimeScript.zip"
            "RoleArn": "arn:aws:iam::111122223333:role/GameLiftAccess"
            "ObjectVersion": null
        },
        "Version": "12345.678"
    }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateVpcPeeringAuthorization

Requests authorization to create or delete a peer connection between the VPC for your Amazon GameLift fleet and a virtual private cloud (VPC) in your AWS account. VPC peering enables the game servers on your fleet to communicate directly with other AWS resources. After you've received authorization, use CreateVpcPeeringConnection to establish the peering connection. For more information, see VPC Peering with Amazon GameLift Fleets.

You can peer with VPCs that are owned by any AWS account you have access to, including the account that you use to manage your Amazon GameLift fleets. You cannot peer with VPCs that are in different Regions.

To request authorization to create a connection, call this operation from the AWS account with the VPC that you want to peer to your Amazon GameLift fleet. For example, to enable your game servers to retrieve data from a DynamoDB table, use the account that manages that DynamoDB resource. Identify the following values: (1) The ID of the VPC that you want to peer with, and (2) the ID of the AWS account that you use to manage Amazon GameLift. If successful, VPC peering is authorized for the specified VPC.

To request authorization to delete a connection, call this operation from the AWS account with the VPC that is peered with your Amazon GameLift fleet. Identify the following values: (1) VPC ID that you want to delete the peering connection for, and (2) ID of the AWS account that you use to manage Amazon GameLift.

The authorization remains valid for 24 hours unless it is canceled. You must create or delete the peering connection while the authorization is valid.

Related actions

All APIs by task

Request Syntax

```
{
   "GameLiftAwsAccountId": "string",
   "PeerVpcId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameLiftAwsAccountId

A unique identifier for the AWS account that you use to manage your Amazon GameLift fleet. You can find your Account ID in the AWS Management Console under account settings.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

PeerVpcId

A unique identifier for a VPC with resources to be accessed by your Amazon GameLift fleet. The VPC must be in the same Region as your fleet. To look up a VPC ID, use the VPC Dashboard in the AWS Management Console. Learn more about VPC peering in VPC Peering with Amazon GameLift Fleets.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

Response Syntax

```
{
   "VpcPeeringAuthorization": {
      "CreationTime": number,
      "ExpirationTime": number,
      "GameLiftAwsAccountId": "string",
```

```
        "PeerVpcAwsAccountId": "string",
        "PeerVpcId": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

VpcPeeringAuthorization

Details on the requested VPC peering authorization, including expiration.

Type: VpcPeeringAuthorization object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Authorize VPC peering between your Amazon GameLift fleet and resources on your Amazon GameLift account

In this example, you want your Amazon GameLift hosted game servers to access a web service. You manage the Amazon GameLift fleet and the web service through the same AWS account (account ID *111122223333*). The web service already has a VPC set up, with ID *vpc-a12bc345*.

When making this request, use credentials for AWS account 111122223333.

Sample Request

```
POST / HTTP/1.1
Host: gamelift.us-west-2.amazonaws.com;
Accept-Encoding: identity
Content-Length: 77
User-Agent: aws-cli/1.11.36 Python/2.7.9 Windows/7 botocore/1.4.93
Content-Type: application/x-amz-json-1.0
Authorization: AWS4-HMAC-SHA256  Credential=AKIAIOSFODNN7EXAMPLE/20170406/us-west-2/
gamelift/aws4_request, SignedHeaders=content-type;host;x-amz-date;x-amz-target,
 Signature=wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
X-Amz-Date: 20170406T004805Z
X-Amz-Target: GameLift.CreateVpcPeeringAuthorization

{ "GameLiftAwsAccountId": "111122223333",
    "PeerVpcId": "vpc-a12bc345"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: b34f8665-EXAMPLE
Content-Type: application/x-amz-json-1.1
Content-Length: 225
Date: Thu, 06 Apr 2017 00:48:07 GMT

{"VpcPeeringAuthorization":
  {"CreationTime": 1503608847.489,
```

```
   "ExpirationTime": 1503695247,
   "GameLiftAwsAccountId": "111122223333",
   "PeerVpcAwsAccountId": "111122223333",
   "PeerVpcId": "vpc-a12bc345"}
}
```

Authorize VPC peering between your Amazon GameLift fleet and resources on a different account

As in the previous example, you want your game servers to access a web service. But in this example, the Amazon GameLift fleet and the web service are managed through different AWS accounts. Your Amazon GameLift account ID is *111122223333*, while the web service account ID is *444455556666*. A VPC on account 444455556666 with the web service is set up with the ID *vpc-c67ef890*.

When making this request, use credentials for AWS account 444455556666. If you don't have rights to this account, work with the account owner to make the request. You'll need to provide your Amazon GameLift account ID.

Sample Request

```
POST / HTTP/1.1
Host: gamelift.us-west-2.amazonaws.com;
Accept-Encoding: identity
Content-Length: 82
User-Agent: aws-cli/1.11.36 Python/2.7.9 Windows/7 botocore/1.4.93
Content-Type: application/x-amz-json-1.0
Authorization: AWS4-HMAC-SHA256  Credential=AKIAIOSFODNN7EXAMPLE/20170406/us-west-2/
gamelift/aws4_request, SignedHeaders=content-type;host;x-amz-date;x-amz-target,
 Signature=wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
X-Amz-Date: 20170406T004805Z
X-Amz-Target: GameLift.CreateVpcPeeringAuthorization

{
    "GameLiftAwsAccountId": "111122223333",
    "PeerVpcId": "vpc-c67ef890"
}
```

Sample Response

```
HTTP/1.1 200 OK
```

```
x-amzn-RequestId: b34f8665-EXAMPLE
Content-Type: application/x-amz-json-1.1
Content-Length: 225
Date: Thu, 06 Apr 2017 00:48:07 GMT

{"VpcPeeringAuthorization":
  {"CreationTime": 1503608847.489,
   "ExpirationTime": 1503695247,
   "GameLiftAwsAccountId": "111122223333",
   "PeerVpcAwsAccountId": "444455556666",
   "PeerVpcId": "vpc-c67ef890"}
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

CreateVpcPeeringConnection

Establishes a VPC peering connection between a virtual private cloud (VPC) in an AWS account with the VPC for your Amazon GameLift fleet. VPC peering enables the game servers on your fleet to communicate directly with other AWS resources. You can peer with VPCs in any AWS account that you have access to, including the account that you use to manage your Amazon GameLift fleets. You cannot peer with VPCs that are in different Regions. For more information, see VPC Peering with Amazon GameLift Fleets.

Before calling this operation to establish the peering connection, you first need to use CreateVpcPeeringAuthorization and identify the VPC you want to peer with. Once the authorization for the specified VPC is issued, you have 24 hours to establish the connection. These two operations handle all tasks necessary to peer the two VPCs, including acceptance, updating routing tables, etc.

To establish the connection, call this operation from the AWS account that is used to manage the Amazon GameLift fleets. Identify the following values: (1) The ID of the fleet you want to be enable a VPC peering connection for; (2) The AWS account with the VPC that you want to peer with; and (3) The ID of the VPC you want to peer with. This operation is asynchronous. If successful, a connection request is created. You can use continuous polling to track the request's status using DescribeVpcPeeringConnections , or by monitoring fleet events for success or failure using DescribeFleetEvents .

Related actions

All APIs by task

Request Syntax

```
{
   "FleetId": "string",
   "PeerVpcAwsAccountId": "string",
   "PeerVpcId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet. You can use either the fleet ID or ARN value. This tells Amazon GameLift which GameLift VPC to peer with.

Type: String

Pattern: `^fleet-\S+`

Required: Yes

PeerVpcAwsAccountId

A unique identifier for the AWS account with the VPC that you want to peer your Amazon GameLift fleet with. You can find your Account ID in the AWS Management Console under account settings.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

PeerVpcId

A unique identifier for a VPC with resources to be accessed by your Amazon GameLift fleet. The VPC must be in the same Region as your fleet. To look up a VPC ID, use the VPC Dashboard in the AWS Management Console. Learn more about VPC peering in VPC Peering with Amazon GameLift Fleets.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Peer the VPC for your Amazon GameLift fleet with a VPC on your Amazon GameLift account

This example builds on Example 1 in CreateVpcPeeringAuthorization. If authorization succeeded, the next step is to tell Amazon GameLift to request the peering connection. In this example, you

want your game servers that are running on an Amazon GameLift fleet to be able to access a web service. The web service is managed through the same AWS account that you use to manage your Amazon GameLift fleet. To request the peering, provide the following details for the two VPCs to peer: (1) the Amazon GameLift fleet ID, and (2) the account and VPC for the web service. The account ID and VPC for the web service must be the same one you used in the authorization.

The fleet's ID is *fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa*. The AWS account (the same as the one you use to manage your Amazon GameLift fleet) is *111122223333*. The VPC ID for the web service is *vpc-a12bc345*.

To make this request, sign in using your credentials for AWS account 111122223333.

Sample Request

```
POST / HTTP/1.1
Host: gamelift.us-west-2.amazonaws.com;
Accept-Encoding: identity
Content-Length: 141
User-Agent: aws-cli/1.11.36 Python/2.7.9 Windows/7 botocore/1.4.93
Content-Type: application/x-amz-json-1.0
Authorization: AWS4-HMAC-SHA256  Credential=AKIAIOSFODNN7EXAMPLE/20170406/us-west-2/
gamelift/aws4_request, SignedHeaders=content-type;host;x-amz-date;x-amz-target,
 Signature=wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
X-Amz-Date: 20170406T004805Z
X-Amz-Target: GameLift.CreateVpcPeeringConnection

{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "PeerVpcAwsAccountId": "111122223333",
    "PeerVpcId": "vpc-a12bc345"}
```

Peer the VPC for your Amazon GameLift fleet with a VPC on a different account

This example builds on Example 2 in CreateVpcPeeringAuthorization. If authorization succeeded, the next step is to tell Amazon GameLift to request the peering connection. As in the previous example, you want your game servers that are running on an Amazon GameLift fleet to be able to access a web service. But in this example, the web service is managed by a different account from the one that you use to manage your Amazon GameLift fleet. To request the peering, provide the following details for the two VPCs to peer: (1) the Amazon GameLift fleet ID, and (2) the account and VPC for the web service. The account ID and VPC for the web service must be the same one you used in the authorization.

The fleet's ID is *fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa*. Your Amazon GameLift account ID is *111122223333*. The AWS account with the web service is *444455556666*. The VPC ID for the web service is *vpc-c67ef890*.

To make this request, sign in using your credentials for AWS account 111122223333 (your Amazon GameLift account).

Sample Request

```
POST / HTTP/1.1
Host: gamelift.us-west-2.amazonaws.com;
Accept-Encoding: identity
Content-Length: 141
User-Agent: aws-cli/1.11.36 Python/2.7.9 Windows/7 botocore/1.4.93
Content-Type: application/x-amz-json-1.0
Authorization: AWS4-HMAC-SHA256  Credential=AKIAIOSFODNN7EXAMPLE/20170406/us-west-2/
gamelift/aws4_request, SignedHeaders=content-type;host;x-amz-date;x-amz-target,
 Signature=wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
X-Amz-Date: 20170406T004805Z
X-Amz-Target: GameLift.CreateVpcPeeringConnection

{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "PeerVpcAwsAccountId": "444455556666",
    "PeerVpcId": "vpc-c67ef890"}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python

- AWS SDK for Ruby V3

DeleteAlias

Deletes an alias. This operation removes all record of the alias. Game clients attempting to access a server process using the deleted alias receive an error. To delete an alias, specify the alias ID to be deleted.

Related actions

All APIs by task

Request Syntax

```
{
   "AliasId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

AliasId

A unique identifier of the alias that you want to delete. You can use either the alias ID or ARN value.

Type: String

Pattern: `^alias-\S+|^arn:.*:alias\/alias-\S+`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteBuild

Deletes a build. This operation permanently deletes the build resource and any uploaded build files. Deleting a build does not affect the status of any active fleets using the build, but you can no longer create new fleets with the deleted build.

To delete a build, specify the build ID.

Learn more

Upload a Custom Server Build

All APIs by task

Request Syntax

```
{
   "BuildId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

BuildId

A unique identifier for the build to delete. You can use either the build ID or ARN value.

Type: String

Pattern: `^build-\S+|^arn:.*:build\/build-\S+`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Remove a build

This example removes a build from your Amazon GameLift account. After the build is deleted, you can no longer use it to create new fleets. This operation can't be undone.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
}
```

Sample Response

```
HTTP/1.1 200 OK undefined
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteFleet

Deletes all resources and information related a fleet. Any current fleet instances, including those in remote locations, are shut down. You don't need to call `DeleteFleetLocations` separately.

> **Note**
>
> If the fleet being deleted has a VPC peering connection, you first need to get a valid authorization (good for 24 hours) by calling CreateVpcPeeringAuthorization. You do not need to explicitly delete the VPC peering connection.

To delete a fleet, specify the fleet ID to be terminated. During the deletion process the fleet status is changed to `DELETING`. When completed, the status switches to `TERMINATED` and the fleet event `FLEET_DELETED` is sent.

Learn more

Setting up Amazon GameLift Fleets

Request Syntax

```
{
   "FleetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to be deleted. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidFleetStatusException

The requested operation would cause a conflict with the current state of a resource associated with the request and/or the fleet. Resolve the conflict before retrying.

HTTP Status Code: 400

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Delete a fleet that is no longer in use

This example attempts to delete an existing fleet.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"
}
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: b34f8665-EXAMPLE
Date: Thu, 06 Apr 2017 00:48:07 GMT
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2

- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteFleetLocations

Removes locations from a multi-location fleet. When deleting a location, all game server process and all instances that are still active in the location are shut down.

To delete fleet locations, identify the fleet ID and provide a list of the locations to be deleted.

If successful, GameLift sets the location status to `DELETING`, and begins to shut down existing server processes and terminate instances in each location being deleted. When completed, the location status changes to `TERMINATED`.

Learn more

Setting up Amazon GameLift fleets

Request Syntax

```
{
   "FleetId": "string",
   "Locations": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to delete locations for. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Locations

The list of fleet locations to delete. Specify locations in the form of an AWS Region code, such as `us-west-2`.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: Yes

Response Syntax

```
{
   "FleetArn": "string",
   "FleetId": "string",
   "LocationStates": [
      {
         "Location": "string",
         "Status": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

FleetId

A unique identifier for the fleet that location attributes are being deleted for.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

LocationStates

The remote locations that are being deleted, with each location status set to `DELETING`.

Type: Array of LocationState objects

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteGameServerGroup

This operation is used with the Amazon GameLift FleetIQ solution and game server groups.

Terminates a game server group and permanently deletes the game server group record. You have several options for how these resources are impacted when deleting the game server group. Depending on the type of delete operation selected, this operation might affect these resources:

- The game server group
- The corresponding Auto Scaling group
- All game servers that are currently running in the group

To delete a game server group, identify the game server group to delete and specify the type of delete operation to initiate. Game server groups can only be deleted if they are in `ACTIVE` or `ERROR` status.

If the delete request is successful, a series of operations are kicked off. The game server group status is changed to `DELETE_SCHEDULED`, which prevents new game servers from being registered and stops automatic scaling activity. Once all game servers in the game server group are deregistered, Amazon GameLift FleetIQ can begin deleting resources. If any of the delete operations fail, the game server group is placed in `ERROR` status.

Amazon GameLift FleetIQ emits delete events to Amazon CloudWatch.

Learn more

Amazon GameLift FleetIQ Guide

Request Syntax

```
{
   "DeleteOption": "string",
   "GameServerGroupName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameServerGroupName

A unique identifier for the game server group. Use either the name or ARN value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]+|^arn:.*:gameservergroup\/[a-zA-Z0-9-\.]+`

Required: Yes

DeleteOption

The type of delete to perform. Options include the following:

- `SAFE_DELETE` – (default) Terminates the game server group and Amazon EC2 Auto Scaling group only when it has no game servers that are in `UTILIZED` status.
- `FORCE_DELETE` – Terminates the game server group, including all active game servers regardless of their utilization status, and the Amazon EC2 Auto Scaling group.
- `RETAIN` – Does a safe delete of the game server group but retains the Amazon EC2 Auto Scaling group as is.

Type: String

Valid Values: `SAFE_DELETE | FORCE_DELETE | RETAIN`

Required: No

Response Syntax

```
{
   "GameServerGroup": {
```

```
      "AutoScalingGroupArn": "string",
      "BalancingStrategy": "string",
      "CreationTime": number,
      "GameServerGroupArn": "string",
      "GameServerGroupName": "string",
      "GameServerProtectionPolicy": "string",
      "InstanceDefinitions": [
         {
            "InstanceType": "string",
            "WeightedCapacity": "string"
         }
      ],
      "LastUpdatedTime": number,
      "RoleArn": "string",
      "Status": "string",
      "StatusReason": "string",
      "SuspendedActions": [ "string" ]
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameServerGroup

An object that describes the deleted game server group resource, with status updated to DELETE_SCHEDULED.

Type: GameServerGroup object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Delete a game server group

This example deletes a game server group only if there is no hosting activity taking place on instances in the group.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
   "GameServerGroupName": "MegaFrogServers_NA",
   "DeleteOption": [ "SAFE_DELETE" ]
}

CLI command:

aws gamelift delete-game-server-group \
    --game-server-group MegaFrogServers_NA \
```

```
    --delete-option SAFE_DELETE
```

Sample Response

```
{
   "GameServerGroup": {
      "AutoScalingGroupArn": "arn:aws:autoscaling:us-
west-2:123456789012:autoScalingGroup:1111aaaa-22bb-33cc-44dd-5555eeee66ff:autoScalingGroupName/
MegaFrogServers_NA",
      "BalancingStrategy": "SPOT_ONLY",
      "CreationTime": 1496365885.44,
      "GameServerGroupArn": "arn:aws:gamelift:us-west-2::GameServerGroup/
MegaFrogServers_NA",
      "GameServerGroupName": " MegaFrogServers_NA",
      "GameServerProtectionPolicy": "NO_PROTECTION",
      "InstanceDefinitions": [
         {
            "InstanceType": "c5.2xlarge",
            "WeightedCapacity": "1"
         },
         {
            "InstanceType": "m5.2xlarge",
            "WeightedCapacity": "1"
         }
      ],
      "LastUpdatedTime": 1496365885.44,
      "RoleArn": "arn:aws:iam:123456789012::role/GameLiftGsgRole",
      "Status": "DELETE_SCHEDULED",
      "StatusReason": "",
      "SuspendedActions": []
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteGameSessionQueue

Deletes a game session queue. Once a queue is successfully deleted, unfulfilled StartGameSessionPlacement requests that reference the queue will fail. To delete a queue, specify the queue name.

Request Syntax

```
{
   "Name": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Name

A descriptive label that is associated with game session queue. Queue names must be unique within each Region. You can use either the queue ID or ARN value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-]+|^arn:.*:gamesessionqueue\/[a-zA-Z0-9-]+`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteLocation

Deletes a custom location.

Before deleting a custom location, review any fleets currently using the custom location and deregister the location if it is in use. For more information, see DeregisterCompute.

Request Syntax

```
{
   "LocationName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

LocationName

The location name of the custom location to be deleted.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^custom-[A-Za-z0-9\-]+|^arn:.*:location\/custom-\S+`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteMatchmakingConfiguration

Permanently removes a FlexMatch matchmaking configuration. To delete, specify the configuration name. A matchmaking configuration cannot be deleted if it is being used in any active matchmaking tickets.

Request Syntax

```
{
   "Name": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Name

A unique identifier for the matchmaking configuration. You can use either the configuration name or ARN value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]*|^arn:.*:matchmakingconfiguration\/[a-zA-Z0-9-\.]*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteMatchmakingRuleSet

Deletes an existing matchmaking rule set. To delete the rule set, provide the rule set name. Rule sets cannot be deleted if they are currently being used by a matchmaking configuration.

Learn more

- Build a rule set

Request Syntax

```
{
   "Name": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Name

A unique identifier for the matchmaking rule set to be deleted. (Note: The rule set name is different from the optional "name" field in the rule set body.) You can use either the rule set name or ARN value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]*|^arn:.*:matchmakingruleset\/[a-zA-Z0-9-\.]*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteScalingPolicy

Deletes a fleet scaling policy. Once deleted, the policy is no longer in force and Amazon GameLift removes all record of it. To delete a scaling policy, specify both the scaling policy name and the fleet ID it is associated with.

To temporarily suspend scaling policies, use StopFleetActions. This operation suspends all policies for the fleet.

Request Syntax

```
{
   "FleetId": "string",
   "Name": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to be deleted. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Name

A descriptive label that is associated with a fleet's scaling policy. Policy names do not need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Delete a scaling policy

To delete a policy, we must specify both the fleet ID and name. The combination of these two values is what uniquely identifies the policy. Once a delete request is received, the policy is put into status DELETING and no longer affects the fleet's scaling activity.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
POST / HTTP/1.1
Host: gamelift.us-west-2.amazonaws.com;
Accept-Encoding: identity
Content-Length: 336
User-Agent: aws-cli/1.11.36 Python/2.7.9 Windows/7 botocore/1.4.93
Content-Type: application/x-amz-json-1.0
Authorization: AWS4-HMAC-SHA256  Credential=AKIAIOSFODNN7EXAMPLE/20170406/us-west-2/
gamelift/aws4_request, SignedHeaders=content-type;host;x-amz-date;x-amz-target,
 Signature=wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
X-Amz-Date: 20170406T004805Z
X-Amz-Target: GameLift.DeleteScalingPolicy

{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "Name": "My_Target_Policy_1"
    }
}

CLI syntax:

$aws gamelift delete-scaling-policy
--fleet-id "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"
--name "My_Target_Policy_1"
```

Sample Response

```
HTTP/1.1 200 OK undefined
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteScript

Deletes a Realtime script. This operation permanently deletes the script record. If script files were uploaded, they are also deleted (files stored in an S3 bucket are not deleted).

To delete a script, specify the script ID. Before deleting a script, be sure to terminate all fleets that are deployed with the script being deleted. Fleet instances periodically check for script updates, and if the script record no longer exists, the instance will go into an error state and be unable to host game sessions.

Learn more

Amazon GameLift Realtime Servers

Related actions

All APIs by task

Request Syntax

```
{
   "ScriptId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

ScriptId

A unique identifier for the Realtime script to delete. You can use either the script ID or ARN value.

Type: String

Pattern: `^script-\S+|^arn:.*:script\/script-\S+`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Delete an existing script

This example illustrates one usage of DeleteScript.

Sample Request

```
{
        "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
}

CLI syntax:

aws gamelift delete-script --script-id "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
```

Sample Response

```
HTTP/1.1 200 OK undefined
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteVpcPeeringAuthorization

Cancels a pending VPC peering authorization for the specified VPC. If you need to delete an existing VPC peering connection, use DeleteVpcPeeringConnection.

Related actions

All APIs by task

Request Syntax

```
{
   "GameLiftAwsAccountId": "string",
   "PeerVpcId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameLiftAwsAccountId

A unique identifier for the AWS account that you use to manage your Amazon GameLift fleet. You can find your Account ID in the AWS Management Console under account settings.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

PeerVpcId

A unique identifier for a VPC with resources to be accessed by your Amazon GameLift fleet. The VPC must be in the same Region as your fleet. To look up a VPC ID, use the VPC Dashboard in

the AWS Management Console. Learn more about VPC peering in VPC Peering with Amazon GameLift Fleets.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeleteVpcPeeringConnection

Removes a VPC peering connection. To delete the connection, you must have a valid authorization for the VPC peering connection that you want to delete..

Once a valid authorization exists, call this operation from the AWS account that is used to manage the Amazon GameLift fleets. Identify the connection to delete by the connection ID and fleet ID. If successful, the connection is removed.

Related actions

All APIs by task

Request Syntax

```
{
   "FleetId": "string",
   "VpcPeeringConnectionId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet. This fleet specified must match the fleet referenced in the VPC peering connection record. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+`

Required: Yes

VpcPeeringConnectionId

A unique identifier for a VPC peering connection.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeregisterCompute

Removes a compute resource from an Amazon GameLift Anywhere fleet. Deregistered computes can no longer host game sessions through Amazon GameLift.

Request Syntax

```
{
   "ComputeName": "string",
   "FleetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

ComputeName

The name of the compute resource to remove from the specified Anywhere fleet.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[a-zA-Z0-9\-]+|^arn:.*:compute\/[a-zA-Z0-9\-]+`

Required: Yes

FleetId

A unique identifier for the fleet the compute resource is currently registered to.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface

- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DeregisterGameServer

This operation is used with the Amazon GameLift FleetIQ solution and game server groups.

Removes the game server from a game server group. As a result of this operation, the deregistered game server can no longer be claimed and will not be returned in a list of active game servers.

To deregister a game server, specify the game server group and game server ID. If successful, this operation emits a CloudWatch event with termination timestamp and reason.

Learn more

Amazon GameLift FleetIQ Guide

Request Syntax

```
{
   "GameServerGroupName": "string",
   "GameServerId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameServerGroupName

A unique identifier for the game server group where the game server is running.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]+|^arn:.*:gameservergroup\/[a-zA-Z0-9-\.]+`

Required: Yes

GameServerId

A custom string that uniquely identifies the game server to deregister.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]+`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Remove a game server from active status

This example deregisters a game server so that it can no longer be claimed for gameplay.

Sample Request

```
{
   "GameServerGroupName": "MegaFrogServers_NA",
   "GameServerId": "mega-frog-game-12345678"
}

CLI command:

aws gamelift deregister-game-server \
    --game-server-group-name MegaFrogServers_NA \
    --GameServerId mega-frog-game-12345678
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeAlias

Retrieves properties for an alias. This operation returns all alias metadata and settings. To get an alias's target fleet ID only, use `ResolveAlias`.

To get alias properties, specify the alias ID. If successful, the requested alias record is returned.

Related actions

All APIs by task

Request Syntax

```
{
   "AliasId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
> In the following list, the required parameters are described first.

AliasId

The unique identifier for the fleet alias that you want to retrieve. You can use either the alias ID or ARN value.

Type: String

Pattern: `^alias-\S+|^arn:.*:alias\/alias-\S+`

Required: Yes

Response Syntax

```
{
   "Alias": {
      "AliasArn": "string",
      "AliasId": "string",
      "CreationTime": number,
      "Description": "string",
      "LastUpdatedTime": number,
      "Name": "string",
      "RoutingStrategy": {
         "FleetId": "string",
         "Message": "string",
         "Type": "string"
      }
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Alias

The requested alias resource.

Type: Alias object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeBuild

Retrieves properties for a custom game build. To request a build resource, specify a build ID. If successful, an object containing the build properties is returned.

Learn more

Upload a Custom Server Build

All APIs by task

Request Syntax

```
{
   "BuildId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

BuildId

A unique identifier for the build to retrieve properties for. You can use either the build ID or ARN value.

Type: String

Pattern: `^build-\S+|^arn:.*:build\/build-\S+`

Required: Yes

Response Syntax

```
{
   "Build": {
      "BuildArn": "string",
      "BuildId": "string",
      "CreationTime": number,
      "Name": "string",
      "OperatingSystem": "string",
      "ServerSdkVersion": "string",
      "SizeOnDisk": number,
      "Status": "string",
      "Version": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Build

Set of properties describing the requested build.

Type: Build object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

View a build resource

This example retrieves the information, including current status, about a specific build.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
}
```

Sample Response

```
{
    "Build": {
        "BuildArn": "arn:aws:gamelift:us-west-2::build/
build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "CreationTime": 1496708916.18,
        "Name": "My_Game_Server_Build_One",
        "OperatingSystem": "AMAZON_LINUX_2",
        "SizeOnDisk": 1304924,
        "Status": "READY",
        "Version": "12345.678"
    }
```

```
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeCompute

Retrieves properties for a compute resource in an Amazon GameLift fleet. Call ListCompute to get a list of compute resources in a fleet. You can request information for computes in either managed EC2 fleets or Anywhere fleets.

To request compute properties, specify the compute name and fleet ID.

If successful, this operation returns details for the requested compute resource. For managed EC2 fleets, this operation returns the fleet's EC2 instances. For Anywhere fleets, this operation returns the fleet's registered computes.

Request Syntax

```
{
   "ComputeName": "string",
   "FleetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

ComputeName

The unique identifier of the compute resource to retrieve properties for. For an Anywhere fleet compute, use the registered compute name. For a managed EC2 fleet instance, use the instance ID.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[a-zA-Z0-9\-]+|^arn:.*:compute\/[a-zA-Z0-9\-]+`

Required: Yes

FleetId

A unique identifier for the fleet that the compute is registered to. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Response Syntax

```
{
   "Compute": {
      "ComputeArn": "string",
      "ComputeName": "string",
      "ComputeStatus": "string",
      "CreationTime": number,
      "DnsName": "string",
      "FleetArn": "string",
      "FleetId": "string",
      "GameLiftServiceSdkEndpoint": "string",
      "IpAddress": "string",
      "Location": "string",
      "OperatingSystem": "string",
      "Type": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Compute

The set of properties for the requested compute resource.

Type: Compute object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeEC2InstanceLimits

Retrieves the instance limits and current utilization for an AWS Region or location. Instance limits control the number of instances, per instance type, per location, that your AWS account can use. Learn more at Amazon EC2 Instance Types. The information returned includes the maximum number of instances allowed and your account's current usage across all fleets. This information can affect your ability to scale your Amazon GameLift fleets. You can request a limit increase for your account by using the **Service limits** page in the Amazon GameLift console.

Instance limits differ based on whether the instances are deployed in a fleet's home Region or in a remote location. For remote locations, limits also differ based on the combination of home Region and remote location. All requests must specify an AWS Region (either explicitly or as your default settings). To get the limit for a remote location, you must also specify the location. For example, the following requests all return different results:

- Request specifies the Region `ap-northeast-1` with no location. The result is limits and usage data on all instance types that are deployed in `us-east-2`, by all of the fleets that reside in `ap-northeast-1`.
- Request specifies the Region `us-east-1` with location `ca-central-1`. The result is limits and usage data on all instance types that are deployed in `ca-central-1`, by all of the fleets that reside in `us-east-2`. These limits do not affect fleets in any other Regions that deploy instances to `ca-central-1`.
- Request specifies the Region `eu-west-1` with location `ca-central-1`. The result is limits and usage data on all instance types that are deployed in `ca-central-1`, by all of the fleets that reside in `eu-west-1`.

This operation can be used in the following ways:

- To get limit and usage data for all instance types that are deployed in an AWS Region by fleets that reside in the same Region: Specify the Region only. Optionally, specify a single instance type to retrieve information for.
- To get limit and usage data for all instance types that are deployed to a remote location by fleets that reside in different AWS Region: Provide both the AWS Region and the remote location. Optionally, specify a single instance type to retrieve information for.

If successful, an `EC2InstanceLimits` object is returned with limits and usage data for each requested instance type.

Learn more

Setting up Amazon GameLift fleets

Request Syntax

```
{
   "EC2InstanceType": "string",
   "Location": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

EC2InstanceType

Name of an Amazon EC2 instance type that is supported in Amazon GameLift. A fleet instance type determines the computing resources of each instance in the fleet, including CPU, memory, storage, and networking capacity. Do not specify a value for this parameter to retrieve limits for all instance types.

Type: String

Valid Values: `t2.micro | t2.small | t2.medium | t2.large | c3.large | c3.xlarge | c3.2xlarge | c3.4xlarge | c3.8xlarge | c4.large | c4.xlarge | c4.2xlarge | c4.4xlarge | c4.8xlarge | c5.large | c5.xlarge | c5.2xlarge | c5.4xlarge | c5.9xlarge | c5.12xlarge | c5.18xlarge | c5.24xlarge | c5a.large | c5a.xlarge | c5a.2xlarge | c5a.4xlarge | c5a.8xlarge | c5a.12xlarge | c5a.16xlarge | c5a.24xlarge | r3.large |`

r3.xlarge | r3.2xlarge | r3.4xlarge | r3.8xlarge | r4.large | r4.xlarge | r4.2xlarge | r4.4xlarge | r4.8xlarge | r4.16xlarge | r5.large | r5.xlarge | r5.2xlarge | r5.4xlarge | r5.8xlarge | r5.12xlarge | r5.16xlarge | r5.24xlarge | r5a.large | r5a.xlarge | r5a.2xlarge | r5a.4xlarge | r5a.8xlarge | r5a.12xlarge | r5a.16xlarge | r5a.24xlarge | m3.medium | m3.large | m3.xlarge | m3.2xlarge | m4.large | m4.xlarge | m4.2xlarge | m4.4xlarge | m4.10xlarge | m5.large | m5.xlarge | m5.2xlarge | m5.4xlarge | m5.8xlarge | m5.12xlarge | m5.16xlarge | m5.24xlarge | m5a.large | m5a.xlarge | m5a.2xlarge | m5a.4xlarge | m5a.8xlarge | m5a.12xlarge | m5a.16xlarge | m5a.24xlarge | c5d.large | c5d.xlarge | c5d.2xlarge | c5d.4xlarge | c5d.9xlarge | c5d.12xlarge | c5d.18xlarge | c5d.24xlarge | c6a.large | c6a.xlarge | c6a.2xlarge | c6a.4xlarge | c6a.8xlarge | c6a.12xlarge | c6a.16xlarge | c6a.24xlarge | c6i.large | c6i.xlarge | c6i.2xlarge | c6i.4xlarge | c6i.8xlarge | c6i.12xlarge | c6i.16xlarge | c6i.24xlarge | r5d.large | r5d.xlarge | r5d.2xlarge | r5d.4xlarge | r5d.8xlarge | r5d.12xlarge | r5d.16xlarge | r5d.24xlarge | m6g.medium | m6g.large | m6g.xlarge | m6g.2xlarge | m6g.4xlarge | m6g.8xlarge | m6g.12xlarge | m6g.16xlarge | c6g.medium | c6g.large | c6g.xlarge | c6g.2xlarge | c6g.4xlarge | c6g.8xlarge | c6g.12xlarge | c6g.16xlarge | r6g.medium | r6g.large | r6g.xlarge | r6g.2xlarge | r6g.4xlarge | r6g.8xlarge | r6g.12xlarge | r6g.16xlarge | c6gn.medium | c6gn.large | c6gn.xlarge | c6gn.2xlarge | c6gn.4xlarge | c6gn.8xlarge | c6gn.12xlarge | c6gn.16xlarge | c7g.medium | c7g.large | c7g.xlarge | c7g.2xlarge | c7g.4xlarge | c7g.8xlarge | c7g.12xlarge | c7g.16xlarge | r7g.medium | r7g.large | r7g.xlarge | r7g.2xlarge | r7g.4xlarge | r7g.8xlarge | r7g.12xlarge | r7g.16xlarge | m7g.medium | m7g.large | m7g.xlarge | m7g.2xlarge | m7g.4xlarge | m7g.8xlarge | m7g.12xlarge | m7g.16xlarge | g5g.xlarge | g5g.2xlarge | g5g.4xlarge | g5g.8xlarge | g5g.16xlarge

Required: No

Location

The name of a remote location to request instance limits for, in the form of an AWS Region code such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[A-Za-z0-9\-]+

Required: No

Response Syntax

```
{
   "EC2InstanceLimits": [
      {
         "CurrentInstances": number,
         "EC2InstanceType": "string",
         "InstanceLimit": number,
         "Location": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

EC2InstanceLimits

The maximum number of instances for the specified instance type.

Type: Array of EC2InstanceLimit objects

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

Examples

Request EC2 instance limits for a home Region

In this example, we want to get the instance limits and our current usage for the `m5.large` instance type in the AWS region `us-west-2` (our default region setting). We have several fleets that reside in that Region and we want to adjust capacity scaling for those fleets. The results indicate that our AWS account allows these fleets to deploy up to 200 `m5.large` instances in `us-west-2`. Currently, the fleets have deployed a total of 25 `m5.large` instances to that `us-west-2`.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "EC2InstanceType": "m5.large"
}
```

Sample Response

```
{
```

```
    "EC2InstanceLimits": [
        {
            "EC2InstanceType": "m5.large",
            "CurrentInstances": 25,
            "InstanceLimit": 200,
            "Location": "us-west-2"
        }
    ]
}
```

Request EC2 instance limits for a remote location

In this example, we want to get the instance limits and our current usage for the `m5.large` instance type for instances that are deployed to `sa-east-1` as a remote location by fleets that reside in the AWS Region `ap-southeast-2`. The results indicate that our AWS account allows these fleets to deploy up to 100 `m5.large` instances in `sa-east-1` and have currently deployed a total of zero.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "EC2InstanceType": "m5.large",
    "Location": "sa-east-1"
}
```

Sample Response

```
{
    "EC2InstanceLimits": [
        {
            "EC2InstanceType": "m5.large",
            "CurrentInstances": 0,
            "InstanceLimit": 200,
            "Location": "sa-east-1"
        }
    ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeFleetAttributes

Retrieves core fleet-wide properties, including the computing hardware and deployment configuration for all instances in the fleet.

This operation can be used in the following ways:

- To get attributes for one or more specific fleets, provide a list of fleet IDs or fleet ARNs.
- To get attributes for all fleets, do not provide a fleet identifier.

When requesting attributes for multiple fleets, use the pagination parameters to retrieve results as a set of sequential pages.

If successful, a `FleetAttributes` object is returned for each fleet requested, unless the fleet identifier is not found.

> **Note**
>
> Some API operations limit the number of fleet IDs that allowed in one request. If a request exceeds this limit, the request fails and the error message contains the maximum allowed number.

Learn more

Setting up Amazon GameLift fleets

Request Syntax

```
{
   "FleetIds": [ "string" ],
   "Limit": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetIds

A list of unique fleet identifiers to retrieve attributes for. You can use either the fleet ID or ARN value. To retrieve attributes for all current fleets, do not include this parameter.

Type: Array of strings

Array Members: Minimum number of 1 item.

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: No

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages. This parameter is ignored when the request specifies one or a list of fleet IDs.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value. This parameter is ignored when the request specifies one or a list of fleet IDs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "FleetAttributes": [
      {
         "AnywhereConfiguration": {
            "Cost": "string"
         },
         "BuildArn": "string",
         "BuildId": "string",
         "CertificateConfiguration": {
            "CertificateType": "string"
         },
         "ComputeType": "string",
         "CreationTime": number,
         "Description": "string",
         "FleetArn": "string",
         "FleetId": "string",
         "FleetType": "string",
         "InstanceRoleArn": "string",
         "InstanceRoleCredentialsProvider": "string",
         "InstanceType": "string",
         "LogPaths": [ "string" ],
         "MetricGroups": [ "string" ],
         "Name": "string",
         "NewGameSessionProtectionPolicy": "string",
         "OperatingSystem": "string",
         "ResourceCreationLimitPolicy": {
            "NewGameSessionsPerCreator": number,
            "PolicyPeriodInMinutes": number
         },
         "ScriptArn": "string",
         "ScriptId": "string",
         "ServerLaunchParameters": "string",
         "ServerLaunchPath": "string",
         "Status": "string",
         "StoppedActions": [ "string" ],
         "TerminationTime": number
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetAttributes

A collection of objects containing attribute metadata for each requested fleet ID. Attribute objects are returned only for fleets that currently exist.

Type: Array of FleetAttributes objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Request attributes for a list of fleets

This example retrieves attributes for two fleets. As shown, the requested fleets are deployed with the same build, one for On-Demand instances and one for Spot instances, with some minor configuration differences.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "FleetIds": [
        "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "arn:aws:gamelift:us-west-2::fleet/fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
    ]
}
```

Sample Response

```
{
    "FleetAttributes": [
        {
            "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "FleetType": "ON_DEMAND",
            "InstanceType": "c4.large",
            "Description": "On-demand hosts for v2 North America",
            "Name": "MegaFrogRaceServer.NA.v2-od",
            "CreationTime": 1568836191.995,
            "Status": "ACTIVE",
            "BuildId": "build-3333cccc-44dd-55ee-66ff-00001111aa22",
```

```
            "BuildArn": "arn:aws:gamelift:us-west-2::build/
build-3333cccc-44dd-55ee-66ff-00001111aa22",
            "NewGameSessionProtectionPolicy": "NoProtection",
            "OperatingSystem": "WINDOWS_2016",
            "MetricGroups": [
                "default"
            ],
            "CertificateConfiguration": {
                "CertificateType": "DISABLED"
            }
        },
        {
            "FleetId": "fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
            "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
            "FleetType": "SPOT",
            "InstanceType": "c4.large",
            "Description": "On-demand hosts for v2 North America",
            "Name": "MegaFrogRaceServer.NA.v2-spot",
            "CreationTime": 1568838275.379,
            "Status": "ACTIVATING",
            "BuildId": "build-3333cccc-44dd-55ee-66ff-00001111aa22",
            "BuildArn": "arn:aws:gamelift:us-west-2::build/
build-3333cccc-44dd-55ee-66ff-00001111aa22",
            "ServerLaunchPath": "C:\\game\\MegaFrogRace_Server.exe",
            "NewGameSessionProtectionPolicy": "NoProtection",
            "OperatingSystem": "WINDOWS_2016",
            "MetricGroups": [
                "default"
            ],
            "CertificateConfiguration": {
                "CertificateType": "GENERATED"
            }
        }
    ]
}
```


Request attributes for all fleets

This example returns fleet attributes for all fleets with any status. This example uses the pagination parameters to return one fleet at a time.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "Limit": 1
    "NextToken":
 "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC01NWYxZTZmMS1jY
}
```

Sample Response

```
{
    "FleetAttributes": [
        {
            "FleetId": "fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
            "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
            "FleetType": "SPOT",
            "InstanceType": "c4.large",
            "Description": "On-demand hosts for v2 North America",
            "Name": "MegaFrogRaceServer.NA.v2-spot",
            "CreationTime": 1568838275.379,
            "Status": "ACTIVATING",
            "BuildId": "build-3333cccc-44dd-55ee-66ff-00001111aa22",
            "BuildArn": "arn:aws:gamelift:us-west-2::build/
build-3333cccc-44dd-55ee-66ff-00001111aa22",
            "ServerLaunchPath": "C:\\game\\MegaFrogRace_Server.exe",
            "NewGameSessionProtectionPolicy": "NoProtection",
            "OperatingSystem": "WINDOWS_2016",
            "MetricGroups": [
                "default"
            ],
            "CertificateConfiguration": {
                "CertificateType": "GENERATED"
            }
        }
    ],
    "NextToken":
 "eyJhd3NBY2NvdW50SWQiOnsicyI6IjQwMTY4MDEwMjY5NCJ9LCJmbGVldElkIjp7InMiOiJmbGVldC00ZjcyY2E4ZS1iM
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeFleetCapacity

Retrieves the resource capacity settings for one or more fleets. The data returned includes the current fleet capacity (number of EC2 instances), and settings that can control how capacity scaling. For fleets with remote locations, this operation retrieves data for the fleet's home Region only.

This operation can be used in the following ways:

- To get capacity data for one or more specific fleets, provide a list of fleet IDs or fleet ARNs.
- To get capacity data for all fleets, do not provide a fleet identifier.

When requesting multiple fleets, use the pagination parameters to retrieve results as a set of sequential pages.

If successful, a `FleetCapacity` object is returned for each requested fleet ID. Each FleetCapacity object includes a `Location` property, which is set to the fleet's home Region. When a list of fleet IDs is provided, attribute objects are returned only for fleets that currently exist.

> **Note**
>
> Some API operations may limit the number of fleet IDs that are allowed in one request. If a request exceeds this limit, the request fails and the error message includes the maximum allowed.

Learn more

Setting up Amazon GameLift fleets

GameLift metrics for fleets

Request Syntax

```
{
   "FleetIds": [ "string" ],
   "Limit": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetIds

A unique identifier for the fleet to retrieve capacity information for. You can use either the fleet ID or ARN value. Leave this parameter empty to retrieve capacity information for all fleets.

Type: Array of strings

Array Members: Minimum number of 1 item.

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: No

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages. This parameter is ignored when the request specifies one or a list of fleet IDs.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value. This parameter is ignored when the request specifies one or a list of fleet IDs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "FleetCapacity": [
      {
         "FleetArn": "string",
         "FleetId": "string",
         "InstanceCounts": {
            "ACTIVE": number,
            "DESIRED": number,
            "IDLE": number,
            "MAXIMUM": number,
            "MINIMUM": number,
            "PENDING": number,
            "TERMINATING": number
         },
         "InstanceType": "string",
         "Location": "string"
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetCapacity

A collection of objects that contains capacity information for each requested fleet ID. Capacity objects are returned only for fleets that currently exist. Changes in desired instance value can take up to 1 minute to be reflected.

Type: Array of FleetCapacity objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Request capacity status for a list of fleets

This example retrieves fleet capacity information for a list of two fleets. The response shows that the second fleet listed is in the middle of a scale down event: instances are being terminated so that the active instances count matches the desired instances count.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "FleetIds": [
        "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "arn:aws:gamelift:us-west-2::fleet/fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
    ]
}
```

Sample Response

```
{
    "FleetCapacity": [
        {
            "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "FleetArn": "arn:aws:gamelift:us-east-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "InstanceCounts": {
                "DESIRED": 10,
                "MINIMUM": 1,
                "MAXIMUM": 20,
                "PENDING": 0,
                "ACTIVE": 10,
                "IDLE": 3,
                "TERMINATING": 0
            },
            "InstanceType": "c5.large",
            "Location": "us-west-2"
        },
        {
            "FleetId": "fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
```

```
            "FleetArn": "arn:aws:gamelift:us-east-2::fleet/
fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
            "InstanceCounts": {
                "DESIRED": 13,
                "MINIMUM": 1,
                "MAXIMUM": 20,
                "PENDING": 0,
                "ACTIVE": 15,
                "IDLE": 2,
                "TERMINATING": 2
            }
            "InstanceType": "c5.large",
            "Location": "us-west-2"
        }
    ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeFleetEvents

Retrieves entries from a fleet's event log. Fleet events are initiated by changes in status, such as during fleet creation and termination, changes in capacity, etc. If a fleet has multiple locations, events are also initiated by changes to status and capacity in remote locations.

You can specify a time range to limit the result set. Use the pagination parameters to retrieve results as a set of sequential pages.

If successful, a collection of event log entries matching the request are returned.

Learn more

Setting up Amazon GameLift fleets

Request Syntax

```
{
   "EndTime": number,
   "FleetId": "string",
   "Limit": number,
   "NextToken": "string",
   "StartTime": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to get event logs for. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

EndTime

The most recent date to retrieve event logs for. If no end time is specified, this call returns entries from the specified start time up to the present. Format is a number expressed in Unix time as milliseconds (ex: "1469498468.057").

Type: Timestamp

Required: No

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

StartTime

The earliest date to retrieve event logs for. If no start time is specified, this call returns entries starting from when the fleet was created to the specified end time. Format is a number expressed in Unix time as milliseconds (ex: "1469498468.057").

Type: Timestamp

Required: No

Response Syntax

```
{
   "Events": [
      {
         "EventCode": "string",
         "EventId": "string",
         "EventTime": number,
         "Message": "string",
         "PreSignedLogUrl": "string",
         "ResourceId": "string"
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Events

A collection of objects containing event log entries for the specified fleet.

Type: Array of Event objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Request events for a specified time span

This example returns all events that occurred for the fleet during the specified time span. In this example, the time span is on January 21, 2020, from 15:45:00 to 16:15:00 (local time).

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "StartTime": 1579647600,
    "EndTime": 1579649400,
    "Limit": 5
}
```

Sample Response


```
{
    "Events": [
        {
            "EventId": "a37b6892-5d07-4d3b-8b47-80244ecf66b9",
            "ResourceId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "EventCode": "FLEET_STATE_ACTIVE",
            "Message": "Fleet fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa changed state
 to ACTIVE",
            "EventTime": 1579649342.191
        },
        {
            "EventId": "67da4ec9-92a3-4d95-886a-5d6772c24063",
            "ResourceId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "EventCode": "FLEET_STATE_ACTIVATING",
            "Message": "Fleet fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa changed state
 to ACTIVATING",
            "EventTime": 1579649321.427
        },
        {
            "EventId": "23813a46-a9e6-4a53-8847-f12e6a8381ac",
            "ResourceId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "EventCode": "FLEET_STATE_BUILDING",
            "Message": "Fleet fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa changed state
 to BUILDING",
            "EventTime": 1579649321.243
        },
        {
            "EventId": "3bf217d0-1d44-42f9-9202-433ed475d2e8",
            "ResourceId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "EventCode": "FLEET_STATE_VALIDATING",
            "Message": "Fleet fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa changed state
 to VALIDATING",
            "EventTime": 1579649197.449
        },
        {
            "EventId": "2ecd0130-5986-44eb-99a7-62df27741084",
            "ResourceId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "EventCode": "FLEET_VALIDATION_LAUNCH_PATH_NOT_FOUND",
            "Message": "Failed to find a valid path",
            "EventTime": 1569319075.839,
            "PreSignedLogUrl": "https://gamelift-event-logs-prod-us-west-2.s3.us-
west-2.amazonaws.com/logs/fleet-83422059-8329-42a2-a4d6-c4444386a6f8/
```

```
events/2ecd0130-5986-44eb-99a7-62df27741084/FLEET_VALIDATION_LAUNCH_PATH_NOT_FOUND.txt?
X-Amz-Security-Token=IQoJb3JpZ2luX2VjEB8aCXVzLXdlc3QtMiJHMEUCIHV5K
%2FLPx8h310D%2FAvx0%2FZxsDy5XA3cJOwPdu3T0eBa%2FAiEA1yovokcZYy
%2FV4CWW6l26aFyiSHO%2Bxz%2FBMAhEHYHMQNcqkQMImP%2F%2F%2F%2F%2F%2F
%2F%2F%2F%2FARAAGgw3NDEwNjE1OTIxNzEiDI8rsZtzLzlwEDQhXSrlAtl5Ae
%2Fgo6FCIzqXPbXfBOnSvFYqeDlriZarEpKqKrUt8mXQv9iqHResqCph9AKo49lwgSYTT2QoSxnrD7%2FUgv
%2BZm2pVuczvuKtUA0fcx6s0GxpjIAzdIE%2F5P%2FB7B9M%2BVZ
%2F9KF82hbJi0HTE6Y7BjKsEgFCvk4UXILhfjtan9iQl8%2F21ZTurAcJbm7Y5tuLF9SWSK3%2BEa7VXOcCK4D4O1sMjmdR
%2FIaXoHkNvg0RVTa0hIqdvpaDQlsSBNdqTXbjHTu6fETE9Y9Ky%2BiJK5KiUG
%2F59GjCpDcvS1FqKeLUEmKT7wysGmvjMc2n%2Fr
%2F9VxQfte7w9srXwlLAQuwhiXAAyI5ICMZ5JvzjzQwTqD4CHTVKUUDwL%2BRZzbuuqkJObZml02CkRGp
%2B74RTAzLbWptVqZTIfzctiCTmWxb%2FmKyELRYsVLrwNJ%2BGJ7%2BCrN0RC%2FjlgfLYIZyeAqjPgAu5HjgX
%2BM7jCo9M7wBTrnAXKOFQuf9dvA84SuwXOJFp17LYGjrHMKv0qC3GfbTMrZ6kzeNV9awKCpXB2Gnx9z2KvIlJdqirWVpvH
%2F9C6%2B4jIZPME3jXmZcEHqqw5uvAVF7aeIavtUZU8pxpDIWT0YE4p3Kriy2AA7ziCRKtVfjV839InyLk8LUjsioWK2ql
%2BYUq8%2FDTlLxqj1S%2FiO4TI0Wo7ilAo%2FKKWWF4guuNDexj8EOOynSp1yImB
%2BZf2Fua3O44W4eEXAMPLE33333&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-
Date=20170621T231808Z&X-Amz-SignedHeaders=host&X-Amz-Expires=900&X-Amz-
Credential=AKIAIOSFODNN7EXAMPLE%2F20170621%2Fus-west-2%2Fs3%2Faws4_request&X-Amz-
Signature=wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY"
        }
    ],
    "NextToken":
 "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC01NWYxZTZmMS1jY
}
```


See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeFleetLocationAttributes

Retrieves information on a fleet's remote locations, including life-cycle status and any suspended fleet activity.

This operation can be used in the following ways:

- To get data for specific locations, provide a fleet identifier and a list of locations. Location data is returned in the order that it is requested.
- To get data for all locations, provide a fleet identifier only. Location data is returned in no particular order.

When requesting attributes for multiple locations, use the pagination parameters to retrieve results as a set of sequential pages.

If successful, a `LocationAttributes` object is returned for each requested location. If the fleet does not have a requested location, no information is returned. This operation does not return the home Region. To get information on a fleet's home Region, call `DescribeFleetAttributes`.

Learn more

Setting up Amazon GameLift fleets

Request Syntax

```
{
   "FleetId": "string",
   "Limit": number,
   "Locations": [ "string" ],
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

Note

In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to retrieve remote locations for. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages. This limit is not currently enforced.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

Locations

A list of fleet locations to retrieve information for. Specify locations in the form of an AWS Region code, such as `us-west-2`.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "FleetArn": "string",
   "FleetId": "string",
   "LocationAttributes": [
      {
         "LocationState": {
            "Location": "string",
            "Status": "string"
         },
         "StoppedActions": [ "string" ],
         "UpdateStatus": "string"
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is

`arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

FleetId

A unique identifier for the fleet that location attributes were requested for.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

LocationAttributes

Location-specific information on the requested fleet's remote locations.

Type: Array of LocationAttributes objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

Examples

Retrieve remote fleet locations

This example retrieves information on all remote locations for a fleet. The requested fleet's home Region is `us-west-2`. It can deploy instances in the following AWS Regions: `us-west-2`, `us-west-1`, and `ca-central-1`. In this example, auto-scaling has been suspended in `ca-central-1`, and there is a fleet update that has not yet been completed for that location.

Sample Request

```
{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"
}
```

Sample Response

```
{
   "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
   "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
   "LocationAttributes": [
      {
```

```
         "LocationState": {
            "Location": "us-west-1",
            "Status": "ACTIVE"
         }
      },
      {
         "LocationState": {
            "Location": "ca-central-1",
            "Status": "ACTIVE"
         },
         "StoppedActions": [ "AUTO_SCALING" ],
         "UpdateStatus": "PENDING_UPDATE"
      }
   ],
   "NextToken": "string"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeFleetLocationCapacity

Retrieves the resource capacity settings for a fleet location. The data returned includes the current capacity (number of EC2 instances) and some scaling settings for the requested fleet location. Use this operation to retrieve capacity information for a fleet's remote location or home Region (you can also retrieve home Region capacity by calling `DescribeFleetCapacity`).

To retrieve capacity data, identify a fleet and location.

If successful, a `FleetCapacity` object is returned for the requested fleet location.

Learn more

Setting up Amazon GameLift fleets

GameLift metrics for fleets

Request Syntax

```
{
   "FleetId": "string",
   "Location": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to request location capacity for. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Location

The fleet location to retrieve capacity information for. Specify a location in the form of an AWS Region code, such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: Yes

Response Syntax

```
{
   "FleetCapacity": {
      "FleetArn": "string",
      "FleetId": "string",
      "InstanceCounts": {
         "ACTIVE": number,
         "DESIRED": number,
         "IDLE": number,
         "MAXIMUM": number,
         "MINIMUM": number,
         "PENDING": number,
         "TERMINATING": number
      },
      "InstanceType": "string",
      "Location": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetCapacity

Resource capacity information for the requested fleet location. Capacity objects are returned only for fleets and locations that currently exist. Changes in desired instance value can take up to 1 minute to be reflected.

Type: FleetCapacity object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

Examples

Request capacity information for a fleet location

This example retrieves fleet capacity information for a remote fleet location. The returned `FleetCapacity` object describes the capacity at the specified location only. To get a fleet's current total capacity, first call `DescribeFleetLocationAttributes` to get a list of the fleet's remote locations, and then call DescribeFleetLocationCapacity for each remote location plus the home Region, and sum the results for active instances.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "Location": "sa-east-1"
}
```

Sample Response

```
{
    "FleetCapacity": {
        "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "InstanceCounts": {
            "DESIRED": 10,
            "MINIMUM": 1,
            "MAXIMUM": 20,
            "PENDING": 0,
            "ACTIVE": 10,
            "IDLE": 3,
            "TERMINATING": 0
        },
        "InstanceType": "c5.large",
        "Location": "sa-east-1"
        }
    ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeFleetLocationUtilization

Retrieves current usage data for a fleet location. Utilization data provides a snapshot of current game hosting activity at the requested location. Use this operation to retrieve utilization information for a fleet's remote location or home Region (you can also retrieve home Region utilization by calling `DescribeFleetUtilization`).

To retrieve utilization data, identify a fleet and location.

If successful, a `FleetUtilization` object is returned for the requested fleet location.

Learn more

Setting up Amazon GameLift fleets

GameLift metrics for fleets

Request Syntax

```
{
   "FleetId": "string",
   "Location": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to request location utilization for. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Location

The fleet location to retrieve utilization information for. Specify a location in the form of an AWS Region code, such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: Yes

Response Syntax

```
{
   "FleetUtilization": {
      "ActiveGameSessionCount": number,
      "ActiveServerProcessCount": number,
      "CurrentPlayerSessionCount": number,
      "FleetArn": "string",
      "FleetId": "string",
      "Location": "string",
      "MaximumPlayerSessionCount": number
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetUtilization

Utilization information for the requested fleet location. Utilization objects are returned only for fleets and locations that currently exist.

Type: FleetUtilization object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

Examples

Request utilization for a fleet location

This example retrieves usage data for the remote fleet location `sa-east-1`. The fleet's home Region is `us-west-2`.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "FleetId": "arn:aws:gamelift:us-west-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "Location": "sa-east-1"
}
```

Sample Response

```
{
    "FleetUtilization": {
        "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "ActiveServerProcessCount": 100,
        "ActiveGameSessionCount": 62,
        "CurrentPlayerSessionCount": 329,
        "MaximumPlayerSessionCount": 1000,
        "Location": "sa-east-1"
        }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python

- AWS SDK for Ruby V3

DescribeFleetPortSettings

Retrieves a fleet's inbound connection permissions. Connection permissions specify the range of IP addresses and port settings that incoming traffic can use to access server processes in the fleet. Game sessions that are running on instances in the fleet must use connections that fall in this range.

This operation can be used in the following ways:

- To retrieve the inbound connection permissions for a fleet, identify the fleet's unique identifier.
- To check the status of recent updates to a fleet remote location, specify the fleet ID and a location. Port setting updates can take time to propagate across all locations.

If successful, a set of `IpPermission` objects is returned for the requested fleet ID. When a location is specified, a pending status is included. If the requested fleet has been deleted, the result set is empty.

Learn more

Setting up Amazon GameLift fleets

Request Syntax

```
{
   "FleetId": "string",
   "Location": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to retrieve port settings for. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Location

A remote location to check for status of port setting updates. Use the AWS Region code format, such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

Response Syntax

```
{
   "FleetArn": "string",
   "FleetId": "string",
   "InboundPermissions": [
      {
         "FromPort": number,
         "IpRange": "string",
         "Protocol": "string",
         "ToPort": number
      }
   ],
   "Location": "string",
   "UpdateStatus": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

FleetId

A unique identifier for the fleet that was requested.

Type: String

Pattern: `^fleet-\S+`

InboundPermissions

The port settings for the requested fleet ID.

Type: Array of IpPermission objects

Array Members: Maximum number of 50 items.

Location

The requested fleet location, expressed as an AWS Region code, such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

UpdateStatus

The current status of updates to the fleet's port settings in the requested fleet location. A status of `PENDING_UPDATE` indicates that an update was requested for the fleet but has not yet been completed for the location.

Type: String

Valid Values: `PENDING_UPDATE`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

Examples

Request inbound connection permissions for a fleet

This example retrieves connection settings for a specified fleet.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"
}
```

Sample Response

```
{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "FleetArn": "arn:aws:gamelift:us-east-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "InboundPermissions": [
        {
            "FromPort": 33400,
            "ToPort": 33500,
            "IpRange": "0.0.0.0/0",
            "Protocol": "UDP"
        },
        {
            "FromPort": 1900,
            "ToPort": 2000,
            "IpRange": "0.0.0.0/0",
            "Protocol": "TCP"
        }
    ]
}
```

Check port setting updates in a remote location

This example retrieves the current status of recent port setting updates for a specified remote location.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "Location": "us-west-2"
}
```

Sample Response

```
{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "FleetArn": "arn:aws:gamelift:us-east-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "InboundPermissions": [
        {
            "FromPort": 33400,
            "ToPort": 33500,
            "IpRange": "0.0.0.0/0",
            "Protocol": "UDP"
        },
        {
            "FromPort": 1900,
            "ToPort": 2000,
            "IpRange": "0.0.0.0/0",
            "Protocol": "TCP"
        }
    ],
    "Location": "us-west-2",
    "Status": "PENDING_UPDATE"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeFleetUtilization

Retrieves utilization statistics for one or more fleets. Utilization data provides a snapshot of how the fleet's hosting resources are currently being used. For fleets with remote locations, this operation retrieves data for the fleet's home Region only. See DescribeFleetLocationUtilization to get utilization statistics for a fleet's remote locations.

This operation can be used in the following ways:

- To get utilization data for one or more specific fleets, provide a list of fleet IDs or fleet ARNs.
- To get utilization data for all fleets, do not provide a fleet identifier.

When requesting multiple fleets, use the pagination parameters to retrieve results as a set of sequential pages.

If successful, a FleetUtilization object is returned for each requested fleet ID, unless the fleet identifier is not found. Each fleet utilization object includes a `Location` property, which is set to the fleet's home Region.

> **Note**
>
> Some API operations may limit the number of fleet IDs allowed in one request. If a request exceeds this limit, the request fails and the error message includes the maximum allowed.

Learn more

Setting up Amazon GameLift Fleets

GameLift Metrics for Fleets

Request Syntax

```
{
   "FleetIds": [ "string" ],
   "Limit": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetIds

A unique identifier for the fleet to retrieve utilization data for. You can use either the fleet ID or ARN value. To retrieve attributes for all current fleets, do not include this parameter.

Type: Array of strings

Array Members: Minimum number of 1 item.

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: No

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages. This parameter is ignored when the request specifies one or a list of fleet IDs.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value. This parameter is ignored when the request specifies one or a list of fleet IDs.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "FleetUtilization": [
      {
         "ActiveGameSessionCount": number,
         "ActiveServerProcessCount": number,
         "CurrentPlayerSessionCount": number,
         "FleetArn": "string",
         "FleetId": "string",
         "Location": "string",
         "MaximumPlayerSessionCount": number
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetUtilization

A collection of objects containing utilization information for each requested fleet ID. Utilization objects are returned only for fleets that currently exist.

Type: Array of FleetUtilization objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Request utilization data for a list of fleets

This example retrieves current usage information for a specific fleet. The fleet's home Region is `us-west-2`.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
```

```
    "FleetIds": ["fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"]
}
```

Sample Response

```
{
    "FleetUtilization": [
        {
            "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "ActiveServerProcessCount": 100,
            "ActiveGameSessionCount": 62,
            "CurrentPlayerSessionCount": 329,
            "MaximumPlayerSessionCount": 1000,
            "Location": "us-west-2"
        }
    ]
}
```

Request utilization data for all fleets

This example returns fleet usage data for all fleets with any status. This example uses the pagination parameters to return results for two fleets at a time. The home Region for both fleets is `us-west-2`.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "Limit": 2
    "NextToken":
 "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC01NWYxZTZmMS1jY
}
```

Sample Response

```
{
    "FleetUtilization": [
```

```
        {
            "FleetId": "fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
            "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
            "ActiveServerProcessCount": 100,
            "ActiveGameSessionCount": 13,
            "CurrentPlayerSessionCount": 98,
            "MaximumPlayerSessionCount": 1000,
            "Location": "us-west-2"
        },
        {
            "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "ActiveServerProcessCount": 100,
            "ActiveGameSessionCount": 62,
            "CurrentPlayerSessionCount": 329,
            "MaximumPlayerSessionCount": 1000,
            "Location": "us-west-2"
        }
    ],
    "NextToken":
 "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC01NWYxZTZmMS1jY
}
```


See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeGameServer

This operation is used with the Amazon GameLift FleetIQ solution and game server groups.

Retrieves information for a registered game server. Information includes game server status, health check info, and the instance that the game server is running on.

To retrieve game server information, specify the game server ID. If successful, the requested game server object is returned.

Learn more

Amazon GameLift FleetIQ Guide

Request Syntax

```
{
   "GameServerGroupName": "string",
   "GameServerId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameServerGroupName

A unique identifier for the game server group where the game server is running.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]+|^arn:.*:gameservergroup\/[a-zA-Z0-9-\.]+`

Required: Yes

GameServerId

A custom string that uniquely identifies the game server information to be retrieved.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]+`

Required: Yes

Response Syntax

```
{
   "GameServer": {
      "ClaimStatus": "string",
      "ConnectionInfo": "string",
      "GameServerData": "string",
      "GameServerGroupArn": "string",
      "GameServerGroupName": "string",
      "GameServerId": "string",
      "InstanceId": "string",
      "LastClaimTime": number,
      "LastHealthCheckTime": number,
      "RegistrationTime": number,
      "UtilizationStatus": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameServer

Object that describes the requested game server.

Type: GameServer object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Retrieve details for a game server

This example retrieves attributes for a specified game server.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
   "GameServerGroupName": "MegaFrogServers_NA",
```

```
   "GameServerId": "mega-frog-game-12345678"
}

CLI command:

aws gamelift describe-game-server \
    --game-server-group-name MegaFrogServers_NA \
    --game-server-id mega-frog-game-12345678
```

Sample Response

```
{
   "GameServer": {
      "ClaimStatus": "",
      "ConnectionInfo": "192.0.2.0.80",
      "GameServerData": "",
      "GameServerGroupArn": "arn:aws:gamelift:us-west-2::GameServerGroup/
MegaFrogServers_NA",
      "GameServerGroupName": "MegaFrogServers_NA",
      "GameServerId": "mega-frog-game-12345678",
      "InstanceId": "i-1234567890abcdef0",
      "LastClaimTime": 1580218197.293,
      "LastHealthCheckTime": 1580218197.293,
      "RegistrationTime": 1580218197.293,
      "UtilizationStatus": "AVAILABLE"
   }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeGameServerGroup

This operation is used with the Amazon GameLift FleetIQ solution and game server groups.

Retrieves information on a game server group. This operation returns only properties related to Amazon GameLift FleetIQ. To view or update properties for the corresponding Auto Scaling group, such as launch template, auto scaling policies, and maximum/minimum group size, access the Auto Scaling group directly.

To get attributes for a game server group, provide a group name or ARN value. If successful, a `GameServerGroup` object is returned.

Learn more

Amazon GameLift FleetIQ Guide

Request Syntax

```
{
   "GameServerGroupName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameServerGroupName

A unique identifier for the game server group. Use either the name or ARN value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]+|^arn:.*:gameservergroup\/[a-zA-Z0-9-\.]+`

Required: Yes

Response Syntax

```
{
   "GameServerGroup": {
      "AutoScalingGroupArn": "string",
      "BalancingStrategy": "string",
      "CreationTime": number,
      "GameServerGroupArn": "string",
      "GameServerGroupName": "string",
      "GameServerProtectionPolicy": "string",
      "InstanceDefinitions": [
         {
            "InstanceType": "string",
            "WeightedCapacity": "string"
         }
      ],
      "LastUpdatedTime": number,
      "RoleArn": "string",
      "Status": "string",
      "StatusReason": "string",
      "SuspendedActions": [ "string" ]
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameServerGroup

An object with the property settings for the requested game server group resource.

Type: GameServerGroup object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Retrieve a game server group

This example retrieves information about a game server group by providing the group name.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
   "GameServerGroupName": "MegaFrogServers_NA"
}

CLI command:

aws gamelift describe-game-server-group \
```

```
    --game-server-group-name MegaFrogServers_NA
```

Sample Response

```
{
   "GameServerGroup": {
      "AutoScalingGroupArn": "arn:aws:autoscaling:us-
west-2:123456789012:autoScalingGroup:1111aaaa-22bb-33cc-44dd-5555eeee66ff:autoScalingGroupName/
MegaFrogServers_NA",
      "BalancingStrategy": "SPOT_PREFERRED",
      "CreationTime": 1496365885.44,
      "GameServerGroupArn": "arn:aws:gamelift:us-west-2::GameServerGroup/
MegaFrogServers_NA",
      "GameServerGroupName": " MegaFrogServers_NA",
      "GameServerProtectionPolicy": "NO_PROTECTION",
      "InstanceDefinitions": [
         {
            "InstanceType": "c5.2xlarge",
            "WeightedCapacity": "1"
         },
         {
            "InstanceType": "c5.4xlarge",
            "WeightedCapacity": "2"
         }
      ],
      "LastUpdatedTime": 1496365885.44,
      "RoleArn": "arn:aws:iam:123456789012::role/GameLiftGsgRole",
      "Status": "ACTIVE",
      "StatusReason": "",
      "SuspendedActions": []
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeGameServerInstances

This operation is used with the Amazon GameLift FleetIQ solution and game server groups.

Retrieves status information about the Amazon EC2 instances associated with a Amazon GameLift FleetIQ game server group. Use this operation to detect when instances are active or not available to host new game servers.

To request status for all instances in the game server group, provide a game server group ID only. To request status for specific instances, provide the game server group ID and one or more instance IDs. Use the pagination parameters to retrieve results in sequential segments. If successful, a collection of `GameServerInstance` objects is returned.

This operation is not designed to be called with every game server claim request; this practice can cause you to exceed your API limit, which results in errors. Instead, as a best practice, cache the results and refresh your cache no more than once every 10 seconds.

Learn more

Amazon GameLift FleetIQ Guide

Request Syntax

```
{
   "GameServerGroupName": "string",
   "InstanceIds": [ "string" ],
   "Limit": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameServerGroupName

A unique identifier for the game server group. Use either the name or ARN value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]+|^arn:.*:gameservergroup\/[a-zA-Z0-9-\.]+`

Required: Yes

InstanceIds

The Amazon EC2 instance IDs that you want to retrieve status on. Amazon EC2 instance IDs use a 17-character format, for example: `i-1234567890abcdef0`. To retrieve all instances in the game server group, leave this parameter empty.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Length Constraints: Fixed length of 19.

Pattern: `^i-[0-9a-zA-Z]{17}$`

Required: No

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "GameServerInstances": [
      {
         "GameServerGroupArn": "string",
         "GameServerGroupName": "string",
         "InstanceId": "string",
         "InstanceStatus": "string"
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameServerInstances

The collection of requested game server instances.

Type: Array of GameServerInstance objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Retrieve game server instance status

This example retrieves the current status of the first twenty instances in a game server group. Since no instance IDs are specified in this request, there is no error information to be returned.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
   "GameServerGroupName": "MegaFrogServers_NA",
   "Limit": "20"
}
```

```
CLI command:

aws gamelift describe-game-server-instances \
    --game-server-group-name MegaFrogServers_NA \
    --limit 20
```

Sample Response

```
{
   "GameServerInstances": [
      {
         "GameServerGroupArn": "arn:aws:gamelift:us-west-2::GameServerGroup/
MegaFrogServers_NA",
         "GameServerGroupName": " MegaFrogServers_NA",
         "InstanceId": "i-1234567890abcdef0",
         "InstanceStatus: "ACTIVE"
      },
      {
         "GameServerGroupArn": "arn:aws:gamelift:us-west-2::GameServerGroup/
MegaFrogServers_NA",
         "GameServerGroupName": " MegaFrogServers_NA",
         "InstanceId": "i-9876543210abcdef1",
         "InstanceStatus: "DRAINING"
      }
   ],
   "NextToken":
 "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC01NWYxZTZmMS1jY
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3

- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeGameSessionDetails

Retrieves additional game session properties, including the game session protection policy in force, a set of one or more game sessions in a specific fleet location. You can optionally filter the results by current game session status.

This operation can be used in the following ways:

- To retrieve details for all game sessions that are currently running on all locations in a fleet, provide a fleet or alias ID, with an optional status filter. This approach returns details from the fleet's home Region and all remote locations.
- To retrieve details for all game sessions that are currently running on a specific fleet location, provide a fleet or alias ID and a location name, with optional status filter. The location can be the fleet's home Region or any remote location.
- To retrieve details for a specific game session, provide the game session ID. This approach looks for the game session ID in all fleets that reside in the AWS Region defined in the request.

Use the pagination parameters to retrieve results as a set of sequential pages.

If successful, a `GameSessionDetail` object is returned for each game session that matches the request.

Learn more

Find a game session

All APIs by task

Request Syntax

```
{
   "AliasId": "string",
   "FleetId": "string",
   "GameSessionId": "string",
   "Limit": number,
   "Location": "string",
   "NextToken": "string",
   "StatusFilter": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

AliasId

A unique identifier for the alias associated with the fleet to retrieve all game sessions for. You can use either the alias ID or ARN value.

Type: String

Pattern: `^alias-\S+|^arn:.*:alias\/alias-\S+`

Required: No

FleetId

A unique identifier for the fleet to retrieve all game sessions active on the fleet. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: No

GameSessionId

A unique identifier for the game session to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9:/-]+`

Required: No

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

Location

A fleet location to get game session details for. You can specify a fleet's home Region or a remote location. Use the AWS Region code format, such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

StatusFilter

Game session status to filter results on. Possible game session statuses include `ACTIVE`, `TERMINATED`, `ACTIVATING` and `TERMINATING` (the last two are transitory).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "GameSessionDetails": [
      {
         "GameSession": {
            "CreationTime": number,
            "CreatorId": "string",
            "CurrentPlayerSessionCount": number,
            "DnsName": "string",
            "FleetArn": "string",
            "FleetId": "string",
            "GameProperties": [
               {
                  "Key": "string",
                  "Value": "string"
               }
            ],
            "GameSessionData": "string",
            "GameSessionId": "string",
            "IpAddress": "string",
            "Location": "string",
            "MatchmakerData": "string",
            "MaximumPlayerSessionCount": number,
            "Name": "string",
            "PlayerSessionCreationPolicy": "string",
            "Port": number,
            "Status": "string",
            "StatusReason": "string",
            "TerminationTime": number
         },
         "ProtectionPolicy": "string"
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameSessionDetails

A collection of properties for each game session that matches the request.

Type: Array of GameSessionDetail objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TerminalRoutingStrategyException

The service is unable to resolve the routing for a particular alias because it has a terminal `RoutingStrategy` associated with it. The message returned in this exception is the message

defined in the routing strategy itself. Such requests should only be retried if the routing strategy for the specified alias is modified.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeGameSessionPlacement

Retrieves information, including current status, about a game session placement request.

To get game session placement details, specify the placement ID.

This operation is not designed to be continually called to track game session status. This practice can cause you to exceed your API limit, which results in errors. Instead, you must configure configure an Amazon Simple Notification Service (SNS) topic to receive notifications from FlexMatch or queues. Continuously polling with `DescribeGameSessionPlacement` should only be used for games in development with low game session usage.

Request Syntax

```
{
   "PlacementId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

PlacementId

A unique identifier for a game session placement to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9-]+`

Required: Yes

Response Syntax

```
{
   "GameSessionPlacement": {
      "DnsName": "string",
      "EndTime": number,
      "GameProperties": [
         {
            "Key": "string",
            "Value": "string"
         }
      ],
      "GameSessionArn": "string",
      "GameSessionData": "string",
      "GameSessionId": "string",
      "GameSessionName": "string",
      "GameSessionQueueName": "string",
      "GameSessionRegion": "string",
      "IpAddress": "string",
      "MatchmakerData": "string",
      "MaximumPlayerSessionCount": number,
      "PlacedPlayerSessions": [
         {
            "PlayerId": "string",
            "PlayerSessionId": "string"
         }
      ],
      "PlacementId": "string",
      "PlayerLatencies": [
         {
            "LatencyInMilliseconds": number,
            "PlayerId": "string",
            "RegionIdentifier": "string"
         }
      ],
      "Port": number,
      "StartTime": number,
      "Status": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameSessionPlacement

Object that describes the requested game session placement.

Type: GameSessionPlacement object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeGameSessionQueues

Retrieves the properties for one or more game session queues. When requesting multiple queues, use the pagination parameters to retrieve results as a set of sequential pages. When specifying a list of queues, objects are returned only for queues that currently exist in the Region.

Learn more

View Your Queues

Request Syntax

```
{
   "Limit": number,
   "Names": [ "string" ],
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages. You can request up to 50 results.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

Names

A list of queue names to retrieve information for. You can use either the queue ID or ARN value. To request settings for all queues, leave this parameter empty.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-]+|^arn:.*:gamesessionqueue\/[a-zA-Z0-9-]+`

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "GameSessionQueues": [
      {
         "CustomEventData": "string",
         "Destinations": [
            {
               "DestinationArn": "string"
            }
         ],
         "FilterConfiguration": {
            "AllowedLocations": [ "string" ]
         },
         "GameSessionQueueArn": "string",
         "Name": "string",
         "NotificationTarget": "string",
         "PlayerLatencyPolicies": [
            {
```

```
                "MaximumIndividualPlayerLatencyMilliseconds": number,
                "PolicyDurationSeconds": number
            }
         ],
         "PriorityConfiguration": {
            "LocationOrder": [ "string" ],
            "PriorityOrder": [ "string" ]
         },
         "TimeoutInSeconds": number
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameSessionQueues

A collection of objects that describe the requested game session queues.

Type: Array of GameSessionQueue objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeGameSessions

Retrieves a set of one or more game sessions in a specific fleet location. You can optionally filter the results by current game session status.

This operation can be used in the following ways:

- To retrieve all game sessions that are currently running on all locations in a fleet, provide a fleet or alias ID, with an optional status filter. This approach returns all game sessions in the fleet's home Region and all remote locations.
- To retrieve all game sessions that are currently running on a specific fleet location, provide a fleet or alias ID and a location name, with optional status filter. The location can be the fleet's home Region or any remote location.
- To retrieve a specific game session, provide the game session ID. This approach looks for the game session ID in all fleets that reside in the AWS Region defined in the request.

Use the pagination parameters to retrieve results as a set of sequential pages.

If successful, a `GameSession` object is returned for each game session that matches the request.

This operation is not designed to be continually called to track game session status. This practice can cause you to exceed your API limit, which results in errors. Instead, you must configure an Amazon Simple Notification Service (SNS) topic to receive notifications from FlexMatch or queues. Continuously polling with `DescribeGameSessions` should only be used for games in development with low game session usage.

Available in Amazon GameLift Local.

Learn more

Find a game session

All APIs by task

Request Syntax

```
{
   "AliasId": "string",
   "FleetId": "string",
```

```
    "GameSessionId": "string",
    "Limit": number,
    "Location": "string",
    "NextToken": "string",
    "StatusFilter": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

AliasId

A unique identifier for the alias associated with the fleet to retrieve game sessions for. You can use either the alias ID or ARN value.

Type: String

Pattern: `^alias-\S+|^arn:.*:alias\/alias-\S+`

Required: No

FleetId

A unique identifier for the fleet to retrieve game sessions for. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: No

GameSessionId

A unique identifier for the game session to retrieve.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9:/-]+`

Required: No

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

Location

A fleet location to get game sessions for. You can specify a fleet's home Region or a remote location. Use the AWS Region code format, such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

StatusFilter

Game session status to filter results on. You can filter on the following states: ACTIVE, TERMINATED, ACTIVATING, and TERMINATING. The last two are transitory and used for only very brief periods of time.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "GameSessions": [
      {
         "CreationTime": number,
         "CreatorId": "string",
         "CurrentPlayerSessionCount": number,
         "DnsName": "string",
         "FleetArn": "string",
         "FleetId": "string",
         "GameProperties": [
            {
               "Key": "string",
               "Value": "string"
            }
         ],
         "GameSessionData": "string",
         "GameSessionId": "string",
         "IpAddress": "string",
         "Location": "string",
         "MatchmakerData": "string",
         "MaximumPlayerSessionCount": number,
         "Name": "string",
         "PlayerSessionCreationPolicy": "string",
         "Port": number,
         "Status": "string",
         "StatusReason": "string",
         "TerminationTime": number
      }
```

```
    ],
    "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameSessions

A collection of properties for each game session that matches the request.

Type: Array of GameSession objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TerminalRoutingStrategyException

The service is unable to resolve the routing for a particular alias because it has a terminal `RoutingStrategy` associated with it. The message returned in this exception is the message defined in the routing strategy itself. Such requests should only be retried if the routing strategy for the specified alias is modified.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python

- AWS SDK for Ruby V3

DescribeInstances

Retrieves information about the EC2 instances in an Amazon GameLift managed fleet, including instance ID, connection data, and status. You can use this operation with a multi-location fleet to get location-specific instance information. As an alternative, use the operations ListCompute and DescribeCompute to retrieve information for compute resources, including EC2 and Anywhere fleets.

You can call this operation in the following ways:

- To get information on all instances in a fleet's home Region, specify the fleet ID.
- To get information on all instances in a fleet's remote location, specify the fleet ID and location name.
- To get information on a specific instance in a fleet, specify the fleet ID and instance ID.

Use the pagination parameters to retrieve results as a set of sequential pages.

If successful, this operation returns `Instance` objects for each requested instance, listed in no particular order. If you call this operation for an Anywhere fleet, you receive an InvalidRequestException.

Learn more

Remotely connect to fleet instances

Debug fleet issues

Related actions

All APIs by task

Request Syntax

```
{
   "FleetId": "string",
   "InstanceId": "string",
   "Limit": number,
   "Location": "string",
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to retrieve instance information for. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

InstanceId

A unique identifier for an instance to retrieve. Specify an instance ID or leave blank to retrieve all instances in the fleet.

Type: String

Pattern: `[a-zA-Z0-9\.-]+`

Required: No

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

Location

The name of a location to retrieve instance information for, in the form of an AWS Region code such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "Instances": [
      {
         "CreationTime": number,
         "DnsName": "string",
         "FleetArn": "string",
         "FleetId": "string",
         "InstanceId": "string",
         "IpAddress": "string",
         "Location": "string",
         "OperatingSystem": "string",
         "Status": "string",
         "Type": "string"
      }
   ],
   "NextToken": "string"
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Instances

A collection of objects containing properties for each instance returned.

Type: Array of Instance objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

Examples

Get instance data on a fleet's home Region

This example requests information on instances in a fleet's home Region. If the specified fleet also has instances deployed to remote locations, they aren't included in the response.

Sample Request

```
{
    "FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
    "Limit": "1"
}
```

Sample Response

```
{
    "Instances": [
        {
            "FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
            "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
            "InstanceId": "i-11111111a222b333c,
            "IpAddress": "192.0.2.0",
            "DnsName": "ec2-192-0-2-0.us-west-2.compute.amazonaws.com",
            "OperatingSystem": "WIN_2012",
            "Type": "c4.large",
            "Status": "Active",
            "CreationTime": 1515032347.867,
```

```
            "Location": "us-west-2
        }
    ]
}
```

Get instance data on a fleet's remote location

This example requests information on fleet instances deployed to a remote location in the AWS Region `sa-east-1`. This example retrieves information on fleet instances in the `sa-east-1` only.

Sample Request

```
{
    "FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
    "Location": "sa-east-1",
    "Limit": "2"
}
```

Sample Response

```
{
    "Instances": [
        {
            "FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
            "FleetArn": "arn:aws:gamelift:us-west-2::fleet/
fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
            "InstanceId": "i-11111111a222b333c,
            "IpAddress": "192.0.2.0",
            "DnsName": "ec2-192-0-2-0.us-west-2.compute.amazonaws.com",
            "OperatingSystem": "WIN_2012",
            "Type": "c4.large",
            "Status": "Active",
            "CreationTime": 1515032347.867,
            "Location": "sa-east-1"
        },
        {
            "FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
            "FleetArn": "arn:aws:gamelift:us-east-2::fleet/
fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
            "InstanceId": "i-12312311a222b444d,
            "IpAddress": "192.0.2.0",
            "DnsName": "ec2-192-0-2-0.us-west-2.compute.amazonaws.com",
```

```
            "OperatingSystem": "WIN_2012",
            "Type": "c4.large",
            "Status": "Active",
            "CreationTime": 1515032999.867,
            "Location": "sa-east-1"
        }
    ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeMatchmaking

Retrieves one or more matchmaking tickets. Use this operation to retrieve ticket information, including--after a successful match is made--connection information for the resulting new game session.

To request matchmaking tickets, provide a list of up to 10 ticket IDs. If the request is successful, a ticket object is returned for each requested ID that currently exists.

This operation is not designed to be continually called to track matchmaking ticket status. This practice can cause you to exceed your API limit, which results in errors. Instead, as a best practice, set up an Amazon Simple Notification Service to receive notifications, and provide the topic ARN in the matchmaking configuration.

Learn more

Add FlexMatch to a game client

Set Up FlexMatch event notification

Request Syntax

```
{
   "TicketIds": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

TicketIds

A unique identifier for a matchmaking ticket. You can include up to 10 ID values.

Type: Array of strings

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]*`

Required: Yes

Response Syntax

```
{
   "TicketList": [
      {
         "ConfigurationArn": "string",
         "ConfigurationName": "string",
         "EndTime": number,
         "EstimatedWaitTime": number,
         "GameSessionConnectionInfo": {
            "DnsName": "string",
            "GameSessionArn": "string",
            "IpAddress": "string",
            "MatchedPlayerSessions": [
               {
                  "PlayerId": "string",
                  "PlayerSessionId": "string"
               }
            ],
            "Port": number
         },
         "Players": [
            {
               "LatencyInMs": {
                  "string" : number
               },
               "PlayerAttributes": {
                  "string" : {
                     "N": number,
                     "S": "string",
                     "SDM": {
                        "string" : number
                     },
                     "SL": [ "string" ]
                  }
```

```
                },
                "PlayerId": "string",
                "Team": "string"
            }
        ],
        "StartTime": number,
        "Status": "string",
        "StatusMessage": "string",
        "StatusReason": "string",
        "TicketId": "string"
    }
  ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

TicketList

A collection of existing matchmaking ticket objects matching the request.

Type: Array of MatchmakingTicket objects

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeMatchmakingConfigurations

Retrieves the details of FlexMatch matchmaking configurations.

This operation offers the following options: (1) retrieve all matchmaking configurations, (2) retrieve configurations for a specified list, or (3) retrieve all configurations that use a specified rule set name. When requesting multiple items, use the pagination parameters to retrieve results as a set of sequential pages.

If successful, a configuration is returned for each requested name. When specifying a list of names, only configurations that currently exist are returned.

Learn more

Setting up FlexMatch matchmakers

Request Syntax

```
{
   "Limit": number,
   "Names": [ "string" ],
   "NextToken": "string",
   "RuleSetName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages. This parameter is limited to 10.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

Names

A unique identifier for the matchmaking configuration(s) to retrieve. You can use either the configuration name or ARN value. To request all existing configurations, leave this parameter empty.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]*|^arn:.*:matchmakingconfiguration\/[a-zA-Z0-9-\.]*`

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

RuleSetName

A unique identifier for the matchmaking rule set. You can use either the rule set name or ARN value. Use this parameter to retrieve all matchmaking configurations that use this rule set.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]*|^arn:.*:matchmakingruleset\/[a-zA-Z0-9-\.]*`

Required: No

Response Syntax

```
{
   "Configurations": [
      {
         "AcceptanceRequired": boolean,
         "AcceptanceTimeoutSeconds": number,
         "AdditionalPlayerCount": number,
         "BackfillMode": "string",
         "ConfigurationArn": "string",
         "CreationTime": number,
         "CustomEventData": "string",
         "Description": "string",
         "FlexMatchMode": "string",
         "GameProperties": [
            {
               "Key": "string",
               "Value": "string"
            }
         ],
         "GameSessionData": "string",
         "GameSessionQueueArns": [ "string" ],
         "Name": "string",
         "NotificationTarget": "string",
         "RequestTimeoutSeconds": number,
         "RuleSetArn": "string",
         "RuleSetName": "string"
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Configurations

A collection of requested matchmaking configurations.

Type: Array of MatchmakingConfiguration objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++

- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeMatchmakingRuleSets

Retrieves the details for FlexMatch matchmaking rule sets. You can request all existing rule sets for the Region, or provide a list of one or more rule set names. When requesting multiple items, use the pagination parameters to retrieve results as a set of sequential pages. If successful, a rule set is returned for each requested name.

Learn more

- Build a rule set

Request Syntax

```
{
   "Limit": number,
   "Names": [ "string" ],
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 10.

Required: No

Names

A list of one or more matchmaking rule set names to retrieve details for. (Note: The rule set name is different from the optional "name" field in the rule set body.) You can use either the rule set name or ARN value.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]*|^arn:.*:matchmakingruleset\/[a-zA-Z0-9-\.]*`

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "NextToken": "string",
   "RuleSets": [
      {
         "CreationTime": number,
         "RuleSetArn": "string",
         "RuleSetBody": "string",
         "RuleSetName": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

RuleSets

A collection of requested matchmaking rule set objects.

Type: Array of MatchmakingRuleSet objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribePlayerSessions

Retrieves properties for one or more player sessions.

This action can be used in the following ways:

- To retrieve a specific player session, provide the player session ID only.
- To retrieve all player sessions in a game session, provide the game session ID only.
- To retrieve all player sessions for a specific player, provide a player ID only.

To request player sessions, specify either a player session ID, game session ID, or player ID. You can filter this request by player session status. If you provide a specific `PlayerSessionId` or `PlayerId`, Amazon GameLift ignores the filter criteria. Use the pagination parameters to retrieve results as a set of sequential pages.

If successful, a `PlayerSession` object is returned for each session that matches the request.

Related actions

All APIs by task

Request Syntax

```
{
   "GameSessionId": "string",
   "Limit": number,
   "NextToken": "string",
   "PlayerId": "string",
   "PlayerSessionId": "string",
   "PlayerSessionStatusFilter": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameSessionId

A unique identifier for the game session to retrieve player sessions for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9:/-]+`

Required: No

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages. If a player session ID is specified, this parameter is ignored.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value. If a player session ID is specified, this parameter is ignored.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

PlayerId

A unique identifier for a player to retrieve player sessions for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

PlayerSessionId

A unique identifier for a player session to retrieve.

Type: String

Pattern: `^psess-\S+`

Required: No

PlayerSessionStatusFilter

Player session status to filter results on. Note that when a PlayerSessionId or PlayerId is provided in a DescribePlayerSessions request, then the PlayerSessionStatusFilter has no effect on the response.

Possible player session statuses include the following:

- **RESERVED** -- The player session request has been received, but the player has not yet connected to the server process and/or been validated.
- **ACTIVE** -- The player has been validated by the server process and is currently connected.
- **COMPLETED** -- The player connection has been dropped.
- **TIMEDOUT** -- A player session request was received, but the player did not connect and/or was not validated within the timeout limit (60 seconds).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "NextToken": "string",
   "PlayerSessions": [
      {
         "CreationTime": number,
         "DnsName": "string",
```

```
            "FleetArn": "string",
            "FleetId": "string",
            "GameSessionId": "string",
            "IpAddress": "string",
            "PlayerData": "string",
            "PlayerId": "string",
            "PlayerSessionId": "string",
            "Port": number,
            "Status": "string",
            "TerminationTime": number
        }
    ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

PlayerSessions

A collection of objects containing properties for each player session that matches the request.

Type: Array of PlayerSession objects

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeRuntimeConfiguration

Retrieves a fleet's runtime configuration settings. The runtime configuration tells Amazon GameLift which server processes to run (and how) on each instance in the fleet.

To get the runtime configuration that is currently in forces for a fleet, provide the fleet ID.

If successful, a `RuntimeConfiguration` object is returned for the requested fleet. If the requested fleet has been deleted, the result set is empty.

Learn more

Setting up Amazon GameLift fleets

Running multiple processes on a fleet

Request Syntax

```
{
   "FleetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to get the runtime configuration for. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Response Syntax

```
{
   "RuntimeConfiguration": {
      "GameSessionActivationTimeoutSeconds": number,
      "MaxConcurrentGameSessionActivations": number,
      "ServerProcesses": [
         {
            "ConcurrentExecutions": number,
            "LaunchPath": "string",
            "Parameters": "string"
         }
      ]
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

RuntimeConfiguration

Instructions that describe how server processes should be launched and maintained on each instance in the fleet.

Type: RuntimeConfiguration object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Request the runtime configuration for a fleet

This example retrieves the current runtime configuration for a specified fleet. As shown, the requested fleet is configured to run four concurrent processes with the production game server executable, one with debug mode turned on. The property MaxConcurrentGameSessionActivations is set to the default value, which essentially places no limit on concurrent activations.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"
}
```

Sample Response

```
{
    "RuntimeConfiguration": {
        "ServerProcesses": [
```

```
            {
                "LaunchPath": "C:\game\Bin64.Release.Dedicated
\MegaFrogRace_Server.exe",
                "Parameters": "+gamelift_start_server",
                "ConcurrentExecutions": 3
            },
            {
                "LaunchPath": "C:\game\Bin64.Release.Dedicated
\MegaFrogRace_Server.exe",
                "Parameters": "+gamelift_start_server +debug",
                "ConcurrentExecutions": 1
            }
        ],
        "MaxConcurrentGameSessionActivations": 2147483647,
        "GameSessionActivationTimeoutSeconds": 300
    }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeScalingPolicies

Retrieves all scaling policies applied to a fleet.

To get a fleet's scaling policies, specify the fleet ID. You can filter this request by policy status, such as to retrieve only active scaling policies. Use the pagination parameters to retrieve results as a set of sequential pages. If successful, set of `ScalingPolicy` objects is returned for the fleet.

A fleet may have all of its scaling policies suspended. This operation does not affect the status of the scaling policies, which remains ACTIVE.

Request Syntax

```
{
   "FleetId": "string",
   "Limit": number,
   "Location": "string",
   "NextToken": "string",
   "StatusFilter": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet for which to retrieve scaling policies. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

Location

The fleet location. If you don't specify this value, the response contains the scaling policies of every location in the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

StatusFilter

Scaling policy status to filter results on. A scaling policy is only in force when in an `ACTIVE` status.

- **ACTIVE** -- The scaling policy is currently in force.

- **UPDATEREQUESTED** -- A request to update the scaling policy has been received.
- **UPDATING** -- A change is being made to the scaling policy.
- **DELETEREQUESTED** -- A request to delete the scaling policy has been received.
- **DELETING** -- The scaling policy is being deleted.
- **DELETED** -- The scaling policy has been deleted.
- **ERROR** -- An error occurred in creating the policy. It should be removed and recreated.

Type: String

Valid Values: `ACTIVE | UPDATE_REQUESTED | UPDATING | DELETE_REQUESTED | DELETING | DELETED | ERROR`

Required: No

Response Syntax

```
{
   "NextToken": "string",
   "ScalingPolicies": [
      {
         "ComparisonOperator": "string",
         "EvaluationPeriods": number,
         "FleetArn": "string",
         "FleetId": "string",
         "Location": "string",
         "MetricName": "string",
         "Name": "string",
         "PolicyType": "string",
         "ScalingAdjustment": number,
         "ScalingAdjustmentType": "string",
         "Status": "string",
         "TargetConfiguration": {
            "TargetValue": number
         },
         "Threshold": number,
         "UpdateStatus": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

ScalingPolicies

A collection of objects containing the scaling policies matching the request.

Type: Array of ScalingPolicy objects

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

Examples

View active scaling policies

In this example, we want to get a list of active scaling policies for a specific fleet. We can do this by retrieving the list of all policies for the fleet filtered by status. The sample request illustrates the use of pagination parameters, `Limit` and `NextToken`, to retrieve multiple results in sequential sets.

Sample Request

```
POST / HTTP/1.1
Host: gamelift.us-west-2.amazonaws.com;
Accept-Encoding: identity
Content-Length: 336
User-Agent: aws-cli/1.11.36 Python/2.7.9 Windows/7 botocore/1.4.93
Content-Type: application/x-amz-json-1.0
Authorization: AWS4-HMAC-SHA256  Credential=AKIAIOSFODNN7EXAMPLE/20170406/us-west-2/
gamelift/aws4_request, SignedHeaders=content-type;host;x-amz-date;x-amz-target,
 Signature=wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
X-Amz-Date: 20170406T004805Z
X-Amz-Target: GameLift.DescribeScalingPolicies

{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "Limit": "2",
    "StatusFilter": "ACTIVE"
    }
}
```

```
CLI syntax:

$aws gamelift describe-scaling-policies
--fleet-id "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"
--limit "2"
--status-filter "ACTIVE"
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: b34f8665-EXAMPLE
Content-Type: application/x-amz-json-1.1
Content-Length: 600
Date: Thu, 06 Apr 2017 00:48:07 GMT

{
    "ScalingPolicies": [
        {
            "Status": "ACTIVE",
            "Name": "My_Target_Policy_1",
            "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "PolicyType": "TargetBased",
            "MetricName": "PercentAvailableGameSessions",
            "TargetConfiguration": {"TargetValue": 15"}
        },
        {
            "Status": "ACTIVE",
            "EvaluationPeriods": "1",
            "Name": "My_Rule_Policy_1",
            "ComparisonOperator": "GreaterThanThreshold",
            "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "PolicyType": "RuleBased",
            "Threshold": "1.0",
            "ScalingAdjustment": "10",
            "MetricName": "QueueDepth",
            "ScalingAdjustmentType": "PercentChangeInCapacity"
        }
    ],
    "NextToken":
 "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC01NWYxZTZmMS1jY
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeScript

Retrieves properties for a Realtime script.

To request a script record, specify the script ID. If successful, an object containing the script properties is returned.

Learn more

Amazon GameLift Realtime Servers

Related actions

All APIs by task

Request Syntax

```
{
   "ScriptId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

ScriptId

A unique identifier for the Realtime script to retrieve properties for. You can use either the script ID or ARN value.

Type: String

Pattern: `^script-\S+|^arn:.*:script\/script-\S+`

Required: Yes

Response Syntax

```
{
   "Script": {
      "CreationTime": number,
      "Name": "string",
      "ScriptArn": "string",
      "ScriptId": "string",
      "SizeOnDisk": number,
      "StorageLocation": {
         "Bucket": "string",
         "Key": "string",
         "ObjectVersion": "string",
         "RoleArn": "string"
      },
      "Version": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Script

A set of properties describing the requested script.

Type: Script object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

View a script record

This example illustrates one usage of DescribeScript.

Sample Request

```
{
        "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
}

CLI syntax:

aws gamelift describe-script --script-id "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
```

Sample Response

```
{
    "Script": {
        "CreationTime": 1496708916.18,
        "Name": "My_Realtime_Script_2",
```

```
        "ScriptArn": "arn:aws:gamelift:us-west-2::script/
script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "SizeOnDisk": 0,
        "StorageLocation": {
            "Bucket": "my_realtime_script_files",
             "Key": "myRealtimeScript.zip"
            "RoleArn": "arn:aws:iam::111122223333:role/GameLiftAccess"
            "ObjectVersion": null
        },
        "Version": "12345.678"
    }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeVpcPeeringAuthorizations

Retrieves valid VPC peering authorizations that are pending for the AWS account. This operation returns all VPC peering authorizations and requests for peering. This includes those initiated and received by this account.

Related actions

All APIs by task

Response Syntax

```
{
   "VpcPeeringAuthorizations": [
      {
         "CreationTime": number,
         "ExpirationTime": number,
         "GameLiftAwsAccountId": "string",
         "PeerVpcAwsAccountId": "string",
         "PeerVpcId": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

VpcPeeringAuthorizations

A collection of objects that describe all valid VPC peering operations for the current AWS account.

Type: Array of VpcPeeringAuthorization objects

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

DescribeVpcPeeringConnections

Retrieves information on VPC peering connections. Use this operation to get peering information for all fleets or for one specific fleet ID.

To retrieve connection information, call this operation from the AWS account that is used to manage the Amazon GameLift fleets. Specify a fleet ID or leave the parameter empty to retrieve all connection records. If successful, the retrieved information includes both active and pending connections. Active connections identify the IpV4 CIDR block that the VPC uses to connect.

Related actions

All APIs by task

Request Syntax

```
{
   "FleetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+`

Required: No

Response Syntax

```
{
   "VpcPeeringConnections": [
      {
         "FleetArn": "string",
         "FleetId": "string",
         "GameLiftVpcId": "string",
         "IpV4CidrBlock": "string",
         "PeerVpcId": "string",
         "Status": {
            "Code": "string",
            "Message": "string"
         },
         "VpcPeeringConnectionId": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

VpcPeeringConnections

A collection of VPC peering connection records that match the request.

Type: Array of VpcPeeringConnection objects

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetComputeAccess

Requests authorization to remotely connect to a compute resource in an Amazon GameLift fleet. Call this action to connect to an instance in a managed EC2 fleet if the fleet's game build uses Amazon GameLift server SDK 5.x or later. To connect to instances with game builds that use server SDK 4.x or earlier, call GetInstanceAccess.

To request access to a compute, identify the specific EC2 instance and the fleet it belongs to. You can retrieve instances for a managed EC2 fleet by calling ListCompute.

If successful, this operation returns a set of temporary AWS credentials, including a two-part access key and a session token. Use these credentials with Amazon EC2 Systems Manager (SSM) to start a session with the compute. For more details, see Starting a session (AWS CLI) in the *Amazon EC2 Systems Manager User Guide*.

Learn more

Remotely connect to fleet instances

Debug fleet issues

Request Syntax

```
{
   "ComputeName": "string",
   "FleetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

ComputeName

A unique identifier for the compute resource that you want to connect to. You can use either a registered compute name or an instance ID.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[a-zA-Z0-9\-]+|^arn:.*:compute\/[a-zA-Z0-9\-]+`

Required: Yes

FleetId

A unique identifier for the fleet that contains the compute resource you want to connect to. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Response Syntax

```
{
   "ComputeArn": "string",
   "ComputeName": "string",
   "Credentials": {
      "AccessKeyId": "string",
      "SecretAccessKey": "string",
      "SessionToken": "string"
   },
   "FleetArn": "string",
   "FleetId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ComputeArn

The Amazon Resource Name (ARN) that is assigned to an Amazon GameLift compute resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::compute/compute-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^arn:.*:compute\/[a-zA-Z0-9\-]+`

ComputeName

The identifier of the compute resource to be accessed. This value might be either a compute name or an instance ID.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[a-zA-Z0-9\-]+|^arn:.*:compute\/[a-zA-Z0-9\-]+`

Credentials

A set of temporary AWS credentials for use when connecting to the compute resource with Amazon EC2 Systems Manager (SSM).

Type: AwsCredentials object

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

FleetId

The ID of the fleet that contains the compute resource to be accessed.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetComputeAuthToken

Requests an authentication token from Amazon GameLift for a registered compute in an Anywhere fleet. The game servers that are running on the compute use this token to authenticate with the Amazon GameLift service. Each server process must provide a valid authentication token in its call to the Amazon GameLift server SDK action `InitSDK()`.

Authentication tokens are valid for a limited time span. Use a mechanism to regularly request a fresh authentication token before the current token expires.

Learn more

- Create an Anywhere fleet
- Test your integration
- Server SDK reference guides (for version 5.x)

Request Syntax

```
{
   "ComputeName": "string",
   "FleetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

ComputeName

The name of the compute resource you are requesting the authentication token for.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[a-zA-Z0-9\-]+|^arn:.*:compute\/[a-zA-Z0-9\-]+`

Required: Yes

FleetId

A unique identifier for the fleet that the compute is registered to.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Response Syntax

```
{
   "AuthToken": "string",
   "ComputeArn": "string",
   "ComputeName": "string",
   "ExpirationTimestamp": number,
   "FleetArn": "string",
   "FleetId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

AuthToken

A valid temporary authentication token.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[a-zA-Z0-9\-]+`

ComputeArn

The Amazon Resource Name (ARN) that is assigned to an Amazon GameLift compute resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::compute/compute-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^arn:.*:compute\/[a-zA-Z0-9\-]+`

ComputeName

The name of the compute resource that the authentication token is issued to.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `[a-zA-Z0-9\-]+|^arn:.*:compute\/[a-zA-Z0-9\-]+`

ExpirationTimestamp

The amount of time until the authentication token is no longer valid.

Type: Timestamp

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

FleetId

A unique identifier for the fleet that the compute is registered to.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go

- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetGameSessionLogUrl

Retrieves the location of stored game session logs for a specified game session on Amazon GameLift managed fleets. When a game session is terminated, Amazon GameLift automatically stores the logs in Amazon S3 and retains them for 14 days. Use this URL to download the logs.

> **Note**
>
> See the AWS Service Limits page for maximum log file sizes. Log files that exceed this limit are not saved.

All APIs by task

Request Syntax

```
{
   "GameSessionId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameSessionId

A unique identifier for the game session to get logs for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9:/-]+`

Required: Yes

Response Syntax

```
{
   "PreSignedUrl": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

PreSignedUrl

Location of the requested game session logs, available for download. This URL is valid for 15 minutes, after which S3 will reject any download request using this URL. You can request a new URL any time within the 14-day period that the logs are retained.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

GetInstanceAccess

Requests authorization to remotely connect to an instance in an Amazon GameLift managed fleet. Use this operation to connect to instances with game servers that use Amazon GameLift server SDK 4.x or earlier. To connect to instances with game servers that use server SDK 5.x or later, call GetComputeAccess.

To request access to an instance, specify IDs for the instance and the fleet it belongs to. You can retrieve instance IDs for a fleet by calling DescribeInstances with the fleet ID.

If successful, this operation returns an IP address and credentials. The returned credentials match the operating system of the instance, as follows:

- For a Windows instance: returns a user name and secret (password) for use with a Windows Remote Desktop client.
- For a Linux instance: returns a user name and secret (RSA private key) for use with an SSH client. You must save the secret to a `.pem` file. If you're using the AWS CLI, see the example Get credentials for a Linux instance for tips on automatically saving the secret to a `.pem` file.

Learn more

Remotely connect to fleet instances

Debug fleet issues

Related actions

All APIs by task

Request Syntax

```
{
   "FleetId": "string",
   "InstanceId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet that contains the instance you want to access. You can request access to instances in EC2 fleets with the following statuses: `ACTIVATING`, `ACTIVE`, or `ERROR`. Use either a fleet ID or an ARN value.

> **Note**
>
> You can access fleets in `ERROR` status for a short period of time before Amazon GameLift deletes them.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

InstanceId

A unique identifier for the instance you want to access. You can access an instance in any status.

Type: String

Pattern: `[a-zA-Z0-9\.-]+`

Required: Yes

Response Syntax

```
{
   "InstanceAccess": {
      "Credentials": {
         "Secret": "string",
```

```
            "UserName": "string"
        },
        "FleetId": "string",
        "InstanceId": "string",
        "IpAddress": "string",
        "OperatingSystem": "string"
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

InstanceAccess

The connection information for a fleet instance, including IP address and access credentials.

Type: InstanceAccess object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Get credentials for a Linux instance

This example requests a set of credentials to remotely connect to a fleet instance deployed with a Linux Amazon machine image (AMI). The instance is running a game server build with server SDK version 4.02.

When calling `GetInstanceAccess` programmatically, save the returned value of `Secret` (an RSA private key) as a `.pem` file in the proper format. The returned value uses a newline (\n) to indicate a line break.

If you're calling `GetInstanceAccess` with the AWS CLI, you can automatically save the RSA private key as a `.pem` file. The CLI syntax in this example saves the secret to a file called `MyPrivateKey.pem`. After saving the private key, you can update the file permissions with the following command:

```
$ chmod 400 MyPrivateKey.pem
```

Sample Request

```
    {"FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
    "InstanceId": "i-11111111a222b333c"
    }

CLI syntax:
    aws gamelift get-instance-access  \
      --fleet-id "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa" \
      --instance-id "i-11111111a222b333c" \
      --query 'InstanceAccess.Credentials.Secret' \
      --output text > MyPrivateKey.pem
```

Sample Response

```
{"InstanceAccess": {
```

```
    "Credentials": {
        "Secret": "-----BEGIN RSA PRIVATE KEY-----
nEXAMPLEKEYKCAQEAy7WZhaDsrA1W3mRlQtvhwyORRX8gnxgDAfRt/gx42kWXsT4rXE/b5CpSgie/
\nvBoU7jLxx92pNHoFnByP+Dc21eyyz6CvjTmWA0JwfWiW5/akH7iO5dSrvC7dQkW2duV5QuUdE0QW
\nZ/aNxMniGQE6XAgfwlnXVBwrerrQo+ZWQeqiUwwMkuEbLeJFLhMCvYURpUMSC1oehm449ilx9X1F
\nG50TCFeOzfl8dqqCP6GzbPaIjiU19xX/azOR9V+tpUOzEL+wmXnZt3/nHPQ5xvD2OJH67km6SuPW
\noPzev/D8V+x4+bHthfSjR9Y7DvQFjfBVwHXigBdtZcU2/wei8D/HYwIDAQABAoIBAGZ1kaEvnrqu
\n/uler7vgIn5m7lN5LKw4hJLAIW6tUT/fzvtcHK0SkbQCQXuriHmQ2MQyJX/0kn2NfjLV/
ufGxbL1\nmb5qwMGUnEpJaZD6QSSs3kICLwWUYUiGfc0uiSbmJoap/
GTLU0W5Mfcv36PaBUNy5p53V6G7hXb2\nbahyWyJNfjLe4M86yd2YK3V2CmK+X/
BOsShnJ36+hjrXPPWmV3N9zEmCdJjA+K15DYmhm/
tJWSD9\n81oGk9TopEp7CkIfatEATyyZiVqoRq6k64iuM9JkA3OzdXzMQexXVJ1TLZVEH0E7bhlY9d8O1ozR
\noQs/FiZNAx2iijCWyv0lpjE73+kCgYEA9mZtyhkHkFDpwrSM1APaL8oNAbbjwEy7Z5Mqfql
+lIp1\nYkriL0DbLXlvRAH+yHPRit2hHOjtUNZh4Axv+cpg09qbUI3+43eEy24B7G/Uh+GTfbjsXsOxQx/
x\np9otyVwc7hsQ5TA5PZb+mvkJ5OBEKzet9XcKwONBYELGhnEPe7cCgYEA06Vgov6YHleHui9kHuws
\nayav0elc5zkxjF9nfHFJRry21R1trw2Vdpn+9g481URrpzWVOEihvm+xTtmaZlSp//lkq75XDwnU
\nWA8gkn6O3QE3fq2yN98BURsAKdJfJ5RL1HvGQvTe10HLYYXpJnEkHv+Unl2ajLivWUt5pbBrKbUC
\ngYBjbO+OZk0sCcpZ29sbzjYjpIddErySIyRX5gV2uNQwAjLdp9PfN295yQ+BxMBXiIycWVQiw0bH
\noMo7yykABY7Ozd5wQewBQ4AdSlWSX4nGDtsiFxWiI5sKuAAeOCbTosy1s8w8fxoJ5Tz1sdoxNeGs
\nArq6Wv/G16zQuAE9zK9vvwKBgF+09VI/1wJBirsDGz9whVWfFPrTkJNvJZzYt69qezxlsjgFKshy
\nWBhd4xHZtmCqpBPlAymEjr/TOlbxyARmXMnIOWIAnNXMGB4KGSyl1mzSVAoQ+fqR+cJ3d0dyPl1j
\njjb0Ed/NY8frlNDxAVHE8BSkdsx2f6ELEyBKJSRr9snRAoGAMrTwYneXzvTskF/S5Fyu0iOegLDa
\nNWUH38v/nDCgEpIXD5Hn3qAEcju1IjmbwlvtW+nY2jVhv7UGd8MjwUTNGItdb6nsYqM2asrnF3qS
\nVRkAKKKYeGjkpUfVTrW0YFjXkfcrR/V+QFL5OndHAKJXjW7a4ejJLncTzmZSpYzwApc=\n-----END RSA
 PRIVATE KEY-----",
        "UserName": "gl-user-remote"
    },
    "FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
    "InstanceId": "i-11111111a222b333c",
    "IpAddress": "192.0.2.0",
    "OperatingSystem": "AMAZON_LINUX_2"
}
```


Get credentials for a Windows instance

This example requests a set of credentials to remotely connect to a fleet instance deployed with a Windows Amazon machine image (AMI). The instance is running a game server build with server SDK version 4.02.

Sample Request


```
    {"FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
    "InstanceId": "i-11111111a222b333c"
```

```
    }

CLI syntax:
    aws gamelift get-instance-access \
      --fleet-id "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa" \
      --instance-id "i-11111111a222b333c"
```

Sample Response

```
{"InstanceAccess": {
    "Credentials": {
        "Secret": "aA1bBB2cCCd3EEE",
        "UserName": "gl-user-remote"
    },
    "FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
    "InstanceId": "i-11111111a222b333c",
    "IpAddress": "192.0.2.0",
    "OperatingSystem": "WIN_2012"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListAliases

Retrieves all aliases for this AWS account. You can filter the result set by alias name and/or routing strategy type. Use the pagination parameters to retrieve results in sequential pages.

> **Note**
>
> Returned aliases are not listed in any particular order.

Related actions

All APIs by task

Request Syntax

```
{
   "Limit": number,
   "Name": "string",
   "NextToken": "string",
   "RoutingStrategyType": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

Name

A descriptive label that is associated with an alias. Alias names do not need to be unique.

Type: String

Length Constraints: Minimum length of 1.

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1.

Required: No

RoutingStrategyType

The routing type to filter results on. Use this parameter to retrieve only aliases with a certain routing type. To retrieve all aliases, leave this parameter empty.

Possible routing types include the following:

- **SIMPLE** -- The alias resolves to one specific fleet. Use this type when routing to active fleets.
- **TERMINAL** -- The alias does not resolve to a fleet but instead can be used to display a message to the user. A terminal alias throws a TerminalRoutingStrategyException with the RoutingStrategy message embedded.

Type: String

Valid Values: `SIMPLE | TERMINAL`

Required: No

Response Syntax

```
{
   "Aliases": [
      {
         "AliasArn": "string",
         "AliasId": "string",
         "CreationTime": number,
         "Description": "string",
         "LastUpdatedTime": number,
         "Name": "string",
         "RoutingStrategy": {
            "FleetId": "string",
            "Message": "string",
            "Type": "string"
         }
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Aliases

A collection of alias resources that match the request parameters.

Type: Array of Alias objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListBuilds

Retrieves build resources for all builds associated with the AWS account in use. You can limit results to builds that are in a specific status by using the `Status` parameter. Use the pagination parameters to retrieve results in a set of sequential pages.

> **Note**
>
> Build resources are not listed in any particular order.

Learn more

Upload a Custom Server Build

All APIs by task

Request Syntax

```
{
   "Limit": number,
   "NextToken": "string",
   "Status": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, don't specify a value.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Status

Build status to filter results by. To retrieve all builds, leave this parameter empty.

Possible build statuses include the following:

- **INITIALIZED** -- A new build has been defined, but no files have been uploaded. You cannot create fleets for builds that are in this status. When a build is successfully created, the build status is set to this value.
- **READY** -- The game build has been successfully uploaded. You can now create new fleets for this build.
- **FAILED** -- The game build upload failed. You cannot create new fleets for this build.

Type: String

Valid Values: `INITIALIZED | READY | FAILED`

Required: No

Response Syntax

```
{
   "Builds": [
      {
         "BuildArn": "string",
```

```
            "BuildId": "string",
            "CreationTime": number,
            "Name": "string",
            "OperatingSystem": "string",
            "ServerSdkVersion": "string",
            "SizeOnDisk": number,
            "Status": "string",
            "Version": "string"
        }
    ],
    "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Builds

A collection of build resources that match the request.

Type: Array of Build objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Retrieve all builds

This example retrieves game server builds in the current Region. The sample request illustrates how to use the pagination parameters, `Limit` and `NextToken`, to retrieve the results in sequential sets.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "Limit": 2,
    "NextToken":
 "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC00NDRlZjQxZS1hM
}
```

Sample Response

```
{
    "Builds": [
        {"BuildArn": "arn:aws:gamelift:us-west-2::build/
build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
            "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
            "CreationTime": 1495664528.723,
```

```
            "Name": "My_Game_Server_Build_One",
            "OperatingSystem": "WINDOWS_2016",
            "SizeOnDisk": 8567781,
            "Status": "READY",
            "Version": "12345.678"
        },
        {"BuildArn": "arn:aws:gamelift:us-west-2::build/
build-3333cccc-44dd-55ee-66ff-7777aaaa88bb",
            "BuildId": "build-3333cccc-44dd-55ee-66ff-7777aaaa88bb",
            "CreationTime": 1495528748.555,
            "Name": "My_Game_Server_Build_Two",
            "OperatingSystem": "AMAZON_LINUX_2",
            "SizeOnDisk": 8567781,
            "Status": "INITIALIZED",
            "Version": "23456.789"
        }
    ],
    "NextToken":
 "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC01NWYxZTZmMS1jY
}
```


Retrieve failed builds

This example retrieves all game server builds in the current Region that failed to upload. It uses the pagination parameters to retrieve two builds at a time. With no `NextToken` provided, this request tries to retrieve the first two results. There is only one result, so only one build resource and no `NextToken` is returned.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request


```
{
    "Limit": 2,
    "Status": "FAILED"
}
```


Sample Response


```
{
    "Builds":
```

```
    [
        {"BuildArn": "arn:aws:gamelift:us-west-2::build/
build-3333cccc-44dd-55ee-66ff-7777aaaa88bb",
            "BuildId": "build-3333cccc-44dd-55ee-66ff-7777aaaa88bb",
            "CreationTime": 1495528748.555,
            "Name": "My_Game_Server_Build_Two",
            "OperatingSystem": "AMAZON_LINUX_2",
            "SizeOnDisk": 8567781,
            "Status": "FAILED",
            "Version": "23456.789"
        }
    ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListCompute

Retrieves the compute resources in an Amazon GameLift fleet. You can request information for either managed EC2 fleets or Anywhere fleets.

To request a list of computes, specify the fleet ID. You can filter the result set by location. Use the pagination parameters to retrieve results in a set of sequential pages.

If successful, this operation returns the compute resource for the requested fleet. For managed EC2 fleets, it returns a list of EC2 instances. For Anywhere fleets, it returns a list of registered compute names.

Request Syntax

```
{
   "FleetId": "string",
   "Limit": number,
   "Location": "string",
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to retrieve compute resources for.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

Location

The name of a location to retrieve compute resources for.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "ComputeList": [
      {
         "ComputeArn": "string",
         "ComputeName": "string",
         "ComputeStatus": "string",
         "CreationTime": number,
```

```
            "DnsName": "string",
            "FleetArn": "string",
            "FleetId": "string",
            "GameLiftServiceSdkEndpoint": "string",
            "IpAddress": "string",
            "Location": "string",
            "OperatingSystem": "string",
            "Type": "string"
        }
    ],
    "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

ComputeList

A list of compute resources in the specified fleet.

Type: Array of Compute objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListFleets

Retrieves a collection of fleet resources in an AWS Region. You can call this operation to get fleets in a previously selected default Region (see https://docs.aws.amazon.com/credref/latest/refdocs/setting-global-region.htmlor specify a Region in your request. You can filter the result set to find only those fleets that are deployed with a specific build or script. For fleets that have multiple locations, this operation retrieves fleets based on their home Region only.

This operation can be used in the following ways:

- To get a list of all fleets in a Region, don't provide a build or script identifier.
- To get a list of all fleets where a specific custom game build is deployed, provide the build ID.
- To get a list of all Realtime Servers fleets with a specific configuration script, provide the script ID.

Use the pagination parameters to retrieve results as a set of sequential pages.

If successful, a list of fleet IDs that match the request parameters is returned. A NextToken value is also returned if there are more result pages to retrieve.

> **Note**
>
> Fleet resources are not listed in a particular order.

Learn more

Setting up Amazon GameLift fleets

Request Syntax

```
{
   "BuildId": "string",
   "Limit": number,
   "NextToken": "string",
   "ScriptId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

BuildId

A unique identifier for the build to request fleets for. Use this parameter to return only fleets using a specified build. Use either the build ID or ARN value.

Type: String

Pattern: `^build-\S+|^arn:.*:build\/build-\S+`

Required: No

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

ScriptId

A unique identifier for the Realtime script to request fleets for. Use this parameter to return only fleets using a specified script. Use either the script ID or ARN value.

Type: String

Pattern: `^script-\S+|^arn:.*:script\/script-\S+`

Required: No

Response Syntax

```
{
   "FleetIds": [ "string" ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetIds

A set of fleet IDs that match the list request.

Type: Array of strings

Array Members: Minimum number of 1 item.

Pattern: `^fleet-\S+`

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

List all fleets in a Region

This example retrieves the fleet IDs of all fleets with their home Region in the currently selected Region. It uses the pagination parameters to retrieve two fleet IDs at a time. The example response includes a `NextToken`, which indicates that there are still more results to retrieve.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "Limit": 2,
    "NextToken":
 "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC01NWYxZTZmMS1jY
}
```

Sample Response

```
{
    "FleetIds": [
        "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa"
    ],
    "NextToken":
 "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC01NWYxZTZmMS1jY
}
```

List all fleets in a Region with a specific build or script

This example retrieves the IDs of fleets in the currently selected Region that are deployed with a specified game build. If you're working with Realtime Servers, you can opt to provide a script ID in place of a build ID. This example does not specify the limit parameter, so results can include up to 16 fleet IDs.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "Build": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
}
```

Sample Response

```
{
    "FleetIds": ["fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListGameServerGroups

Lists a game server groups.

Request Syntax

```
{
   "Limit": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Limit

The game server groups' limit.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

Specify the pagination token from a previous request to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "GameServerGroups": [
      {
         "AutoScalingGroupArn": "string",
         "BalancingStrategy": "string",
         "CreationTime": number,
         "GameServerGroupArn": "string",
         "GameServerGroupName": "string",
         "GameServerProtectionPolicy": "string",
         "InstanceDefinitions": [
            {
               "InstanceType": "string",
               "WeightedCapacity": "string"
            }
         ],
         "LastUpdatedTime": number,
         "RoleArn": "string",
         "Status": "string",
         "StatusReason": "string",
         "SuspendedActions": [ "string" ]
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameServerGroups

The game server groups' game server groups.

Type: Array of GameServerGroup objects

NextToken

Specify the pagination token from a previous request to retrieve the next page of results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python

- AWS SDK for Ruby V3

ListGameServers

This operation is used with the Amazon GameLift FleetIQ solution and game server groups.

Retrieves information on all game servers that are currently active in a specified game server group. You can opt to sort the list by game server age. Use the pagination parameters to retrieve results in a set of sequential segments.

Learn more

Amazon GameLift FleetIQ Guide

Request Syntax

```
{
   "GameServerGroupName": "string",
   "Limit": number,
   "NextToken": "string",
   "SortOrder": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameServerGroupName

An identifier for the game server group to retrieve a list of game servers from. Use either the name or ARN value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]+|^arn:.*:gameservergroup\/[a-zA-Z0-9-\.]+`

Required: Yes

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

SortOrder

Indicates how to sort the returned data based on game server registration timestamp. Use `ASCENDING` to retrieve oldest game servers first, or use `DESCENDING` to retrieve newest game servers first. If this parameter is left empty, game servers are returned in no particular order.

Type: String

Valid Values: `ASCENDING | DESCENDING`

Required: No

Response Syntax

```
{
```

```
   "GameServers": [
      {
         "ClaimStatus": "string",
         "ConnectionInfo": "string",
         "GameServerData": "string",
         "GameServerGroupArn": "string",
         "GameServerGroupName": "string",
         "GameServerId": "string",
         "InstanceId": "string",
         "LastClaimTime": number,
         "LastHealthCheckTime": number,
         "RegistrationTime": number,
         "UtilizationStatus": "string"
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameServers

A collection of game server objects that match the request.

Type: Array of GameServer objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListLocations

Lists all custom and AWS locations.

Request Syntax

```
{
   "Filters": [ "string" ],
   "Limit": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Filters

Filters the list for `AWS` or `CUSTOM` locations.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Valid Values: `AWS | CUSTOM`

Required: No

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 200.

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "Locations": [
      {
         "LocationArn": "string",
         "LocationName": "string"
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Locations

A collection of locations.

Type: Array of LocationModel objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V3

ListScripts

Retrieves script records for all Realtime scripts that are associated with the AWS account in use.

Learn more

Amazon GameLift Realtime Servers

Related actions

All APIs by task

Request Syntax

```
{
   "Limit": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Limit

The maximum number of results to return. Use this parameter with `NextToken` to get results as a set of sequential pages.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, don't specify a value.

Type: String

Length Constraints: Minimum length of 1.

Required: No

Response Syntax

```
{
   "NextToken": "string",
   "Scripts": [
      {
         "CreationTime": number,
         "Name": "string",
         "ScriptArn": "string",
         "ScriptId": "string",
         "SizeOnDisk": number,
         "StorageLocation": {
            "Bucket": "string",
            "Key": "string",
            "ObjectVersion": "string",
            "RoleArn": "string"
         },
         "Version": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1.

Scripts

A set of properties describing the requested script.

Type: Array of Script objects

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Retrieve all scripts

This example retrieves the Realtime scripts in the current Region. The example illustrates using the pagination parameters to retrieve the results in sequential sets. This sample request uses a NextToken value that was returned in a previous `ListScripts` request. The response shows two script records; the first script was uploaded from an Amazon S3 bucket, and the second script was uploaded from a local zip file.

Sample Request

```
{
    "Limit": 2,
    "NextToken":
 "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC00NDRlZjQxZS1hM
}

CLI syntax:

aws gamelift list-scripts
    -limit 2
    -next-token
 "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC00NDRlZjQxZS1hM
```

Sample Response

```
{
    "Scripts": {
        "CreationTime": 1496708916.18,
        "Name": "My_Realtime_Script_2",
        "ScriptArn": "arn:aws:gamelift:us-west-2::script/
script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "SizeOnDisk": 0,
        "StorageLocation": {
            "Bucket": "my_realtime_script_files",
            "Key": "myRealtimeScript.zip"
            "RoleArn": "arn:aws:iam::111122223333:role/GameLiftAccess"
            "ObjectVersion": null
        },
        "Version": "12345.678"
```

```
    },
    {
        "CreationTime": 1495528748.555,
        "Name": "My_Realtime_Script_1",
        "ScriptArn": "arn:aws:gamelift:us-west-2::script/
script-3333cccc-44dd-55ee-66ff-7777aaaa88bb",
        "ScriptId": "script-3333cccc-44dd-55ee-66ff-7777aaaa88bb",
        "SizeOnDisk": 9000,
        "StorageLocation": {
            "Bucket": "prod-gamescale-scripts-us-west-2",
            "Key": "123456789012/script-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
        },
        "Version": "1.0.1"
    }
        "NextToken":
 "kyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC01NWYxZTZmMS1jY
}
```


See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ListTagsForResource

Retrieves all tags assigned to a Amazon GameLift resource. Use resource tags to organize AWS resources for a range of purposes. This operation handles the permissions necessary to manage tags for Amazon GameLift resources that support tagging.

To list tags for a resource, specify the unique ARN value for the resource.

Learn more

Tagging AWS Resources in the *AWS General Reference*

AWS Tagging Strategies

Related actions

All APIs by task

Request Syntax

```
{
   "ResourceARN": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

ResourceARN

The Amazon Resource Name (ARN) that uniquely identifies the Amazon GameLift resource that you want to retrieve tags for. Amazon GameLift includes resource ARNs in the data object for the resource. You can retrieve the ARN by calling a `List` or `Describe` operation for the resource type.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

Response Syntax

```
{
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Tags

The collection of tags assigned to the resource.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

PutScalingPolicy

Creates or updates a scaling policy for a fleet. Scaling policies are used to automatically scale a fleet's hosting capacity to meet player demand. An active scaling policy instructs Amazon GameLift to track a fleet metric and automatically change the fleet's capacity when a certain threshold is reached. There are two types of scaling policies: target-based and rule-based. Use a target-based policy to quickly and efficiently manage fleet scaling; this option is the most commonly used. Use rule-based policies when you need to exert fine-grained control over auto-scaling.

Fleets can have multiple scaling policies of each type in force at the same time; you can have one target-based policy, one or multiple rule-based scaling policies, or both. We recommend caution, however, because multiple auto-scaling policies can have unintended consequences.

Learn more about how to work with auto-scaling in Set Up Fleet Automatic Scaling.

Target-based policy

A target-based policy tracks a single metric: PercentAvailableGameSessions. This metric tells us how much of a fleet's hosting capacity is ready to host game sessions but is not currently in use. This is the fleet's buffer; it measures the additional player demand that the fleet could handle at current capacity. With a target-based policy, you set your ideal buffer size and leave it to Amazon GameLift to take whatever action is needed to maintain that target.

For example, you might choose to maintain a 10% buffer for a fleet that has the capacity to host 100 simultaneous game sessions. This policy tells Amazon GameLift to take action whenever the fleet's available capacity falls below or rises above 10 game sessions. Amazon GameLift will start new instances or stop unused instances in order to return to the 10% buffer.

To create or update a target-based policy, specify a fleet ID and name, and set the policy type to "TargetBased". Specify the metric to track (PercentAvailableGameSessions) and reference a `TargetConfiguration` object with your desired buffer value. Exclude all other parameters. On a successful request, the policy name is returned. The scaling policy is automatically in force as soon as it's successfully created. If the fleet's auto-scaling actions are temporarily suspended, the new policy will be in force once the fleet actions are restarted.

Rule-based policy

A rule-based policy tracks specified fleet metric, sets a threshold value, and specifies the type of action to initiate when triggered. With a rule-based policy, you can select from several available

fleet metrics. Each policy specifies whether to scale up or scale down (and by how much), so you need one policy for each type of action.

For example, a policy may make the following statement: "If the percentage of idle instances is greater than 20% for more than 15 minutes, then reduce the fleet capacity by 10%."

A policy's rule statement has the following structure:

If `[MetricName]` is `[ComparisonOperator]` `[Threshold]` for `[EvaluationPeriods]` minutes, then `[ScalingAdjustmentType]` to/by `[ScalingAdjustment]`.

To implement the example, the rule statement would look like this:

If `[PercentIdleInstances]` is `[GreaterThanThreshold]` `[20]` for `[15]` minutes, then `[PercentChangeInCapacity]` to/by `[10]`.

To create or update a scaling policy, specify a unique combination of name and fleet ID, and set the policy type to "RuleBased". Specify the parameter values for a policy rule statement. On a successful request, the policy name is returned. Scaling policies are automatically in force as soon as they're successfully created. If the fleet's auto-scaling actions are temporarily suspended, the new policy will be in force once the fleet actions are restarted.

Request Syntax

```
{
   "ComparisonOperator": "string",
   "EvaluationPeriods": number,
   "FleetId": "string",
   "MetricName": "string",
   "Name": "string",
   "PolicyType": "string",
   "ScalingAdjustment": number,
   "ScalingAdjustmentType": "string",
   "TargetConfiguration": {
      "TargetValue": number
   },
   "Threshold": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to apply this policy to. You can use either the fleet ID or ARN value. The fleet cannot be in any of the following statuses: ERROR or DELETING.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

MetricName

Name of the Amazon GameLift-defined metric that is used to trigger a scaling adjustment. For detailed descriptions of fleet metrics, see Monitor Amazon GameLift with Amazon CloudWatch.

- **ActivatingGameSessions** -- Game sessions in the process of being created.
- **ActiveGameSessions** -- Game sessions that are currently running.
- **ActiveInstances** -- Fleet instances that are currently running at least one game session.
- **AvailableGameSessions** -- Additional game sessions that fleet could host simultaneously, given current capacity.
- **AvailablePlayerSessions** -- Empty player slots in currently active game sessions. This includes game sessions that are not currently accepting players. Reserved player slots are not included.
- **CurrentPlayerSessions** -- Player slots in active game sessions that are being used by a player or are reserved for a player.
- **IdleInstances** -- Active instances that are currently hosting zero game sessions.
- **PercentAvailableGameSessions** -- Unused percentage of the total number of game sessions that a fleet could host simultaneously, given current capacity. Use this metric for a target-based scaling policy.
- **PercentIdleInstances** -- Percentage of the total number of active instances that are hosting zero game sessions.

- **QueueDepth** -- Pending game session placement requests, in any queue, where the current fleet is the top-priority destination.
- **WaitTime** -- Current wait time for pending game session placement requests, in any queue, where the current fleet is the top-priority destination.

Type: String

Valid Values: `ActivatingGameSessions | ActiveGameSessions | ActiveInstances | AvailableGameSessions | AvailablePlayerSessions | CurrentPlayerSessions | IdleInstances | PercentAvailableGameSessions | PercentIdleInstances | QueueDepth | WaitTime | ConcurrentActivatableGameSessions`

Required: Yes

Name

A descriptive label that is associated with a fleet's scaling policy. Policy names do not need to be unique. A fleet can have only one scaling policy with the same name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: Yes

ComparisonOperator

Comparison operator to use when measuring the metric against the threshold value.

Type: String

Valid Values: `GreaterThanOrEqualToThreshold | GreaterThanThreshold | LessThanThreshold | LessThanOrEqualToThreshold`

Required: No

EvaluationPeriods

Length of time (in minutes) the metric must be at or beyond the threshold before a scaling event is triggered.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

PolicyType

The type of scaling policy to create. For a target-based policy, set the parameter *MetricName* to 'PercentAvailableGameSessions' and specify a *TargetConfiguration*. For a rule-based policy set the following parameters: *MetricName*, *ComparisonOperator*, *Threshold*, *EvaluationPeriods*, *ScalingAdjustmentType*, and *ScalingAdjustment*.

Type: String

Valid Values: `RuleBased | TargetBased`

Required: No

ScalingAdjustment

Amount of adjustment to make, based on the scaling adjustment type.

Type: Integer

Required: No

ScalingAdjustmentType

The type of adjustment to make to a fleet's instance count:

- **ChangeInCapacity** -- add (or subtract) the scaling adjustment value from the current instance count. Positive values scale up while negative values scale down.
- **ExactCapacity** -- set the instance count to the scaling adjustment value.
- **PercentChangeInCapacity** -- increase or reduce the current instance count by the scaling adjustment, read as a percentage. Positive values scale up while negative values scale down; for example, a value of "-10" scales the fleet down by 10%.

Type: String

Valid Values: `ChangeInCapacity | ExactCapacity | PercentChangeInCapacity`

Required: No

TargetConfiguration

An object that contains settings for a target-based scaling policy.

Type: TargetConfiguration object

Required: No

Threshold

Metric value used to trigger a scaling event.

Type: Double

Required: No

Response Syntax

```
{
   "Name": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Name

A descriptive label that is associated with a fleet's scaling policy. Policy names do not need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Create a target-based scaling policy

This example sets up auto-scaling using a target-based scaling policy. For this fleet, we want to maintain a 15% capacity buffer for our game, so that our fleet will always be able to immediately accommodate some additional game sessions. For a target-based policy, we need to specify a fleet ID, policy name and type, metric name (set this parameter to "PercentAvailableGameSessions"), and target configuration (buffer size).

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
POST / HTTP/1.1
Host: gamelift.us-west-2.amazonaws.com;
Accept-Encoding: identity
Content-Length: 338
User-Agent: aws-cli/1.11.36 Python/2.7.9 Windows/7 botocore/1.4.93
```

```
Content-Type: application/x-amz-json-1.0
Authorization: AWS4-HMAC-SHA256  Credential=AKIAIOSFODNN7EXAMPLE/20170406/us-west-2/
gamelift/aws4_request, SignedHeaders=content-type;host;x-amz-date;x-amz-target,
 Signature=wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
X-Amz-Date: 20170406T004805Z
X-Amz-Target: GameLift.PutScalingPolicy

{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "Name": "My_Target_Policy_1",
    "PolicyType": "TargetBased",
    "MetricName": "PercentAvailableGameSessions",
    "TargetConfiguration": {"TargetValue": 15}
}

CLI syntax:

$aws gamelift put-scaling-policy
--fleet-id "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"
--name "My_Target_Policy_1"
--policy-type "TargetBased"
--metric-name "PercentAvailableGameSessions"
--target-configuration "TargetValue=5"
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: b34f8665-EXAMPLE
Content-Type: application/x-amz-json-1.1
Content-Length: 607
Date: Thu, 06 Apr 2017 00:48:07 GMT

{
    "Name": "My_Target_Policy_1"
}
```

Create a rule-based scaling policy

This example illustrates using a rule-based policy to supplement a target-based policy. While the target policy does most of the work of ensuring that capacity tracks with player demand, a well-formed rule-based policy can handle special circumstances and edge cases. For example, the target-based approach becomes less efficient when fleets have just few instances. We can

mitigate this issue by creating a rule that maintains at least one idle instance ready to host new game sessions. At low capacity, the two policies do not conflict; at higher capacity, the rule-based policy loses relevance.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
POST / HTTP/1.1
Host: gamelift.us-west-2.amazonaws.com;
Accept-Encoding: identity
Content-Length: 336
User-Agent: aws-cli/1.11.36 Python/2.7.9 Windows/7 botocore/1.4.93
Content-Type: application/x-amz-json-1.0
Authorization: AWS4-HMAC-SHA256  Credential=AKIAIOSFODNN7EXAMPLE/20170406/us-west-2/
gamelift/aws4_request, SignedHeaders=content-type;host;x-amz-date;x-amz-target,
 Signature=wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
X-Amz-Date: 20170406T004805Z
X-Amz-Target: GameLift.PutScalingPolicy

{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "Name": "My_Rule_Policy_1",
    "PolicyType": "RuleBased",
    "MetricName": "IdleInstances",
    "ComparisonOperator": "LessThanThreshold",
    "Threshold": "2"
    "EvaluationPeriods": "5"
    "ScalingAdjustmentType": "ChangeInCapacity"
    "ScalingAdjustment": "1"
    }
}

CLI syntax:

$aws gamelift put-scaling-policy
--fleet-id "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"
--name "My_Rule_Policy_1"
--policy-type "RuleBased"
--metric-name "IdleInstances"
--comparison-operator "LessThanThreshold"
--threshold "2"
```

```
--evaluation-periods "5"
--scaling-adjustment-type "ChangeInCapacity"
--scaling-adjustment "1"
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: b34f8665-EXAMPLE
Content-Type: application/x-amz-json-1.1
Content-Length: 600
Date: Thu, 06 Apr 2017 00:48:07 GMT

{
    "Name": "My_Rule_Policy_1"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

RegisterCompute

Registers a compute resource to an Amazon GameLift Anywhere fleet. With Anywhere fleets you can incorporate your own computing hardware into an Amazon GameLift game hosting solution.

To register a compute to a fleet, give the compute a name (must be unique within the fleet) and specify the compute resource's DNS name or IP address. Provide the Anywhere fleet ID and a fleet location to associate with the compute being registered. You can optionally include the path to a TLS certificate on the compute resource.

If successful, this operation returns the compute details, including an Amazon GameLift SDK endpoint. Game server processes that run on the compute use this endpoint to communicate with the Amazon GameLift service. Each server process includes the SDK endpoint in its call to the Amazon GameLift server SDK action `InitSDK()`.

Learn more

- Create an Anywhere fleet
- Test your integration
- Server SDK reference guides (for version 5.x)

Request Syntax

```
{
   "CertificatePath": "string",
   "ComputeName": "string",
   "DnsName": "string",
   "FleetId": "string",
   "IpAddress": "string",
   "Location": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

ComputeName

A descriptive label for the compute resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z0-9\-]+`

Required: Yes

FleetId

A unique identifier for the fleet to register the compute to. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

CertificatePath

The path to a TLS certificate on your compute resource. Amazon GameLift doesn't validate the path and certificate.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

DnsName

The DNS name of the compute resource. Amazon GameLift requires either a DNS name or IP address.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[0-9a-zA-Z_\-\.]+

Required: No

IpAddress

The IP address of the compute resource. Amazon GameLift requires either a DNS name or IP address.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[0-9A-Fa-f\:\.]+

Required: No

Location

The name of a custom location to associate with the compute resource being registered.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[A-Za-z0-9\-]+

Required: No

Response Syntax

```
{
   "Compute": {
      "ComputeArn": "string",
      "ComputeName": "string",
      "ComputeStatus": "string",
      "CreationTime": number,
      "DnsName": "string",
      "FleetArn": "string",
      "FleetId": "string",
      "GameLiftServiceSdkEndpoint": "string",
      "IpAddress": "string",
```

```
      "Location": "string",
      "OperatingSystem": "string",
      "Type": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Compute

The details of the compute resource you registered.

Type: Compute object

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

LimitExceededException

The requested operation would cause the resource to exceed the allowed service limit. Resolve the issue before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Register your laptop as a testing compute resource

The following example registers a development laptop with the IP address of `10.1.2.3.4` to an Anywhere fleet with the fleet ID `fleet-1234`.

Sample Request

```
{
    "FleetId": "fleet-1234",
    "ComputeName": "DevLaptop",
    "IpAddress": "10.1.2.3"
}
```

Sample Response

```
{
    FleetId = fleet-1234,
    ComputeName = DevLaptop,
    Status = ACTIVE,
    IpAddress = 10.1.2.3,
    GameLiftServiceSdkEndpoint = wss://12345678.execute-api.amazonaws.com/
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

RegisterGameServer

This operation is used with the Amazon GameLift FleetIQ solution and game server groups.

Creates a new game server resource and notifies Amazon GameLift FleetIQ that the game server is ready to host gameplay and players. This operation is called by a game server process that is running on an instance in a game server group. Registering game servers enables Amazon GameLift FleetIQ to track available game servers and enables game clients and services to claim a game server for a new game session.

To register a game server, identify the game server group and instance where the game server is running, and provide a unique identifier for the game server. You can also include connection and game server data.

Once a game server is successfully registered, it is put in status `AVAILABLE`. A request to register a game server may fail if the instance it is running on is in the process of shutting down as part of instance balancing or scale-down activity.

Learn more

Amazon GameLift FleetIQ Guide

Request Syntax

```
{
   "ConnectionInfo": "string",
   "GameServerData": "string",
   "GameServerGroupName": "string",
   "GameServerId": "string",
   "InstanceId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameServerGroupName

A unique identifier for the game server group where the game server is running.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]+|^arn:.*:gameservergroup\/[a-zA-Z0-9-\.]+`

Required: Yes

GameServerId

A custom string that uniquely identifies the game server to register. Game server IDs are developer-defined and must be unique across all game server groups in your AWS account.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]+`

Required: Yes

InstanceId

The unique identifier for the instance where the game server is running. This ID is available in the instance metadata. EC2 instance IDs use a 17-character format, for example: `i-1234567890abcdef0`.

Type: String

Length Constraints: Fixed length of 19.

Pattern: `^i-[0-9a-zA-Z]{17}$`

Required: Yes

ConnectionInfo

Information that is needed to make inbound client connections to the game server. This might include the IP address and port, DNS name, and other information.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `.*\S.*`

Required: No

GameServerData

A set of custom game server properties, formatted as a single string value. This data is passed to a game client or service when it requests information on game servers.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
   "GameServer": {
      "ClaimStatus": "string",
      "ConnectionInfo": "string",
      "GameServerData": "string",
      "GameServerGroupArn": "string",
      "GameServerGroupName": "string",
      "GameServerId": "string",
      "InstanceId": "string",
      "LastClaimTime": number,
      "LastHealthCheckTime": number,
      "RegistrationTime": number,
      "UtilizationStatus": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameServer

Object that describes the newly registered game server.

Type: GameServer object

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

LimitExceededException

The requested operation would cause the resource to exceed the allowed service limit. Resolve the issue before retrying.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Register a game server

This example illustrates how an game server process notifies GameLift that it is ready to host a game.

Sample Request

```
{
   "GameServerGroupName": "MegaFrogServers_NA",
   "ConnectionInfo": "192.0.2.0.80",
   "GameServerId": "mega-frog-game-12345678",
   "InstanceId": "i-1234567890abcdef0"
}

CLI command:

aws gamelift register-game-server \
    --game-server-group-name MegaFrogServers_NA \
    --connection-info "192.0.2.0.80" \
    --game-server-id mega-frog-game-12345678 \
    --instance-id i-1234567890abcdef0
```

Sample Response

```
{
   "GameServer": {
      "ClaimStatus": "",
      "ConnectionInfo": "192.0.2.0.80",
      "GameServerData": "",
      "GameServerGroupArn": "arn:aws:gamelift:us-west-2::GameServerGroup/
MegaFrogServers_NA",
      "GameServerGroupName": "MegaFrogServers_NA",
      "GameServerId": "mega-frog-game-12345678",
      "InstanceId": "i-1234567890abcdef0",
      "LastClaimTime": ,
      "LastHealthCheckTime": 1580218197.293,
      "RegistrationTime": 1580218197.293,
      "UtilizationStatus": "AVAILABLE"
   }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

RequestUploadCredentials

Retrieves a fresh set of credentials for use when uploading a new set of game build files to Amazon GameLift's Amazon S3. This is done as part of the build creation process; see GameSession.

To request new credentials, specify the build ID as returned with an initial `CreateBuild` request. If successful, a new set of credentials are returned, along with the S3 storage location associated with the build ID.

Learn more

Create a Build with Files in S3

All APIs by task

Request Syntax

```
{
   "BuildId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

BuildId

A unique identifier for the build to get credentials for. You can use either the build ID or ARN value.

Type: String

Pattern: `^build-\S+|^arn:.*:build\/build-\S+`

Required: Yes

Response Syntax

```
{
   "StorageLocation": {
      "Bucket": "string",
      "Key": "string",
      "ObjectVersion": "string",
      "RoleArn": "string"
   },
   "UploadCredentials": {
      "AccessKeyId": "string",
      "SecretAccessKey": "string",
      "SessionToken": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

StorageLocation

Amazon S3 path and key, identifying where the game build files are stored.

Type: S3Location object

UploadCredentials

AWS credentials required when uploading a game build to the storage location. These credentials have a limited lifespan and are valid only for the build they were issued for.

Type: AwsCredentials object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Refresh access credentials for uploading a build

This example obtains new, valid access credentials for uploading a build file to a Amazon GameLift Amazon S3 location. Credentials have a limited lift span. The build ID required for this operation is returned in response to the original `CreateBuild` request.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
}
```

Sample Response

```
{
    "StorageLocation": {
        "Bucket": "gamelift-builds-us-west-2",
        "Key": "123456789012/build-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
    },
    "UploadCredentials": {
        "AccessKeyId": "AKIAIOSFODNN7EXAMPLE",
        "SecretAccessKey": "wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY",
        "SessionToken": "AgoGb3JpZ2luENz...EXAMPLETOKEN=="
    }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ResolveAlias

Retrieves the fleet ID that an alias is currently pointing to.

Related actions

All APIs by task

Request Syntax

```
{
   "AliasId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

AliasId

The unique identifier of the alias that you want to retrieve a fleet ID for. You can use either the alias ID or ARN value.

Type: String

Pattern: `^alias-\S+|^arn:.*:alias\/alias-\S+`

Required: Yes

Response Syntax

```
{
   "FleetArn": "string",
```

```
   "FleetId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetArn

The Amazon Resource Name (ARN) associated with the GameLift fleet resource that this alias points to.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

FleetId

The fleet identifier that the alias is pointing to.

Type: String

Pattern: `^fleet-\S+`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TerminalRoutingStrategyException

The service is unable to resolve the routing for a particular alias because it has a terminal `RoutingStrategy` associated with it. The message returned in this exception is the message defined in the routing strategy itself. Such requests should only be retried if the routing strategy for the specified alias is modified.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ResumeGameServerGroup

This operation is used with the Amazon GameLift FleetIQ solution and game server groups.

Reinstates activity on a game server group after it has been suspended. A game server group might be suspended by the SuspendGameServerGroup operation, or it might be suspended involuntarily due to a configuration problem. In the second case, you can manually resume activity on the group once the configuration problem has been resolved. Refer to the game server group status and status reason for more information on why group activity is suspended.

To resume activity, specify a game server group ARN and the type of activity to be resumed. If successful, a `GameServerGroup` object is returned showing that the resumed activity is no longer listed in `SuspendedActions`.

Learn more

Amazon GameLift FleetIQ Guide

Request Syntax

```
{
   "GameServerGroupName": "string",
   "ResumeActions": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameServerGroupName

A unique identifier for the game server group. Use either the name or ARN value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]+|^arn:.*:gameservergroup\/[a-zA-Z0-9-\.]+`

Required: Yes

ResumeActions

The activity to resume for this game server group.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `REPLACE_INSTANCE_TYPES`

Required: Yes

Response Syntax

```
{
   "GameServerGroup": {
      "AutoScalingGroupArn": "string",
      "BalancingStrategy": "string",
      "CreationTime": number,
      "GameServerGroupArn": "string",
      "GameServerGroupName": "string",
      "GameServerProtectionPolicy": "string",
      "InstanceDefinitions": [
         {
            "InstanceType": "string",
            "WeightedCapacity": "string"
         }
      ],
      "LastUpdatedTime": number,
      "RoleArn": "string",
      "Status": "string",
      "StatusReason": "string",
      "SuspendedActions": [ "string" ]
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameServerGroup

An object that describes the game server group resource, with the `SuspendedActions` property updated to reflect the resumed activity.

Type: GameServerGroup object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Restart a game server group activity

This example restores instance balancing activities for the game server group.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
   "GameServerGroupName": "MegaFrogServers_NA",
   "ResumeActions": [ "REPLACE_INSTANCE_TYPES" ]
}

CLI command:

aws gamelift resume-game-server-group \
    --game-server-group MegaFrogServers_NA \
    --resume-actions REPLACE_INSTANCE_TYPES
```

Sample Response

```
{
   "GameServerGroup": {
      "AutoScalingGroupArn": "arn:aws:autoscaling:us-
west-2:123456789012:autoScalingGroup:1111aaaa-22bb-33cc-44dd-5555eeee66ff:autoScalingGroupName/
MegaFrogServers_NA",
      "BalancingStrategy": "SPOT_PREFERRED",
      "CreationTime": 1496365885.44,
      "GameServerGroupArn": "arn:aws:gamelift:us-west-2::GameServerGroup/
MegaFrogServers_NA",
      "GameServerGroupName": " MegaFrogServers_NA",
      "GameServerProtectionPolicy": "NO_PROTECTION",
      "InstanceDefinitions": [
         {
            "InstanceType": "c5.2xlarge",
            "WeightedCapacity": "1"
         },
         {
            "InstanceType": "c5.4xlarge",
```

```
            "WeightedCapacity": "2"
         }
      ],
      "LastUpdatedTime": 1496365885.44,
      "RoleArn": "arn:aws:iam:123456789012::role/GameLiftGsgRole",
      "Status": "ACTIVE",
      "StatusReason": "",
      "SuspendedActions": []
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

SearchGameSessions

Retrieves all active game sessions that match a set of search criteria and sorts them into a specified order.

This operation is not designed to continually track game session status because that practice can cause you to exceed your API limit and generate errors. Instead, configure an Amazon Simple Notification Service (Amazon SNS) topic to receive notifications from a matchmaker or a game session placement queue.

When searching for game sessions, you specify exactly where you want to search and provide a search filter expression, a sort expression, or both. A search request can search only one fleet, but it can search all of a fleet's locations.

This operation can be used in the following ways:

- To search all game sessions that are currently running on all locations in a fleet, provide a fleet or alias ID. This approach returns game sessions in the fleet's home Region and all remote locations that fit the search criteria.
- To search all game sessions that are currently running on a specific fleet location, provide a fleet or alias ID and a location name. For location, you can specify a fleet's home Region or any remote location.

Use the pagination parameters to retrieve results as a set of sequential pages.

If successful, a `GameSession` object is returned for each game session that matches the request. Search finds game sessions that are in `ACTIVE` status only. To retrieve information on game sessions in other statuses, use DescribeGameSessions .

To set search and sort criteria, create a filter expression using the following game session attributes. For game session search examples, see the Examples section of this topic.

- **gameSessionId** -- A unique identifier for the game session. You can use either a `GameSessionId` or `GameSessionArn` value.
- **gameSessionName** -- Name assigned to a game session. Game session names do not need to be unique to a game session.

- **gameSessionProperties** -- A set of key-value pairs that can store custom data in a game session. For example: `{"Key": "difficulty", "Value": "novice"}`. The filter expression must specify the GameProperty -- a `Key` and a string `Value` to search for the game sessions.

  For example, to search for the above key-value pair, specify the following search filter: `gameSessionProperties.difficulty = "novice"`. All game property values are searched as strings.

  For examples of searching game sessions, see the ones below, and also see Search game sessions by game property.
- **maximumSessions** -- Maximum number of player sessions allowed for a game session.
- **creationTimeMillis** -- Value indicating when a game session was created. It is expressed in Unix time as milliseconds.
- **playerSessionCount** -- Number of players currently connected to a game session. This value changes rapidly as players join the session or drop out.
- **hasAvailablePlayerSessions** -- Boolean value indicating whether a game session has reached its maximum number of players. It is highly recommended that all search requests include this filter attribute to optimize search performance and return only sessions that players can join.

> **Note**
>
> Returned values for `playerSessionCount` and `hasAvailablePlayerSessions` change quickly as players join sessions and others drop out. Results should be considered a snapshot in time. Be sure to refresh search results often, and handle sessions that fill up before a player can join.

All APIs by task

Request Syntax

```
{
   "AliasId": "string",
   "FilterExpression": "string",
   "FleetId": "string",
   "Limit": number,
   "Location": "string",
```

```
    "NextToken": "string",
    "SortExpression": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

AliasId

A unique identifier for the alias associated with the fleet to search for active game sessions. You can use either the alias ID or ARN value. Each request must reference either a fleet ID or alias ID, but not both.

Type: String

Pattern: `^alias-\S+|^arn:.*:alias\/alias-\S+`

Required: No

FilterExpression

String containing the search criteria for the session search. If no filter expression is included, the request returns results for all game sessions in the fleet that are in `ACTIVE` status.

A filter expression can contain one or multiple conditions. Each condition consists of the following:

- **Operand** -- Name of a game session attribute. Valid values are `gameSessionName`, `gameSessionId`, `gameSessionProperties`, `maximumSessions`, `creationTimeMillis`, `playerSessionCount`, `hasAvailablePlayerSessions`.
- **Comparator** -- Valid comparators are: =, <>, <, >, <=, >=.
- **Value** -- Value to be searched for. Values may be numbers, boolean values (true/false) or strings depending on the operand. String values are case sensitive and must be enclosed in single quotes. Special characters must be escaped. Boolean and string values can only be

used with the comparators = and <>. For example, the following filter expression searches on gameSessionName: "FilterExpression": "gameSessionName = 'Matt\\'s Awesome Game 1'".

To chain multiple conditions in a single expression, use the logical keywords AND, OR, and NOT and parentheses as needed. For example: x AND y AND NOT z, NOT (x OR y).

Session search evaluates conditions from left to right using the following precedence rules:

1. =, <>, <, >, <=, >=
2. Parentheses
3. NOT
4. AND
5. OR

For example, this filter expression retrieves game sessions hosting at least ten players that have an open player slot: "maximumSessions>=10 AND hasAvailablePlayerSessions=true".

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

FleetId

A unique identifier for the fleet to search for active game sessions. You can use either the fleet ID or ARN value. Each request must reference either a fleet ID or alias ID, but not both.

Type: String

Pattern: ^fleet-\S+|^arn:.*:fleet\/fleet-\S+

Required: No

Limit

The maximum number of results to return. Use this parameter with NextToken to get results as a set of sequential pages. The maximum number of results returned is 20, even if this value is not set or is set higher than 20.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

Location

A fleet location to search for game sessions. You can specify a fleet's home Region or a remote location. Use the AWS Region code format, such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

NextToken

A token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this operation. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

SortExpression

Instructions on how to sort the search results. If no sort expression is included, the request returns results in random order. A sort expression consists of the following elements:

- **Operand** -- Name of a game session attribute. Valid values are `gameSessionName`, `gameSessionId`, `gameSessionProperties`, `maximumSessions`, `creationTimeMillis`, `playerSessionCount`, `hasAvailablePlayerSessions`.
- **Order** -- Valid sort orders are `ASC` (ascending) and `DESC` (descending).

For example, this sort expression returns the oldest active sessions first: `"SortExpression": "creationTimeMillis ASC"`. Results with a null value for the sort operand are returned at the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "GameSessions": [
      {
         "CreationTime": number,
         "CreatorId": "string",
         "CurrentPlayerSessionCount": number,
         "DnsName": "string",
         "FleetArn": "string",
         "FleetId": "string",
         "GameProperties": [
            {
               "Key": "string",
               "Value": "string"
            }
         ],
         "GameSessionData": "string",
         "GameSessionId": "string",
         "IpAddress": "string",
         "Location": "string",
         "MatchmakerData": "string",
         "MaximumPlayerSessionCount": number,
         "Name": "string",
         "PlayerSessionCreationPolicy": "string",
         "Port": number,
         "Status": "string",
         "StatusReason": "string",
         "TerminationTime": number
      }
   ],
   "NextToken": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameSessions

A collection of objects containing game session properties for each session that matches the request.

Type: Array of GameSession objects

NextToken

A token that indicates where to resume retrieving results on the next call to this operation. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TerminalRoutingStrategyException

The service is unable to resolve the routing for a particular alias because it has a terminal `RoutingStrategy` associated with it. The message returned in this exception is the message

defined in the routing strategy itself. Such requests should only be retried if the routing strategy for the specified alias is modified.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

Examples

Search game sessions

In this example, we want to find all game sessions that have at least two players already connected. We also want to filter out active game sessions that are not accepting new players.

This example illustrates a search that includes all of the fleet's locations. The results include a matching game session in the fleet's home Region (`us-west-2`) and another in a remote location (`ca-central-1`).

Sample Request

```
    {"AliasId": "MOG-base",
    "FilterExpression": "playerSessionCount>=2 AND hasAvailablePlayerSessions=true",
    "Limit": 2
    }

CLI syntax:
    aws gamelift search-game-sessions --alias-id "MOG-base" --filter-expression
 "playerSessionCount>=2 AND hasAvailablePlayerSessions=true" --limit 2
```

Sample Response

```
{
```

```
  "GameSessions": [
    {
        "CreationTime": 1469498468.057,
        "CurrentPlayerSessionCount": 5,
        "FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
        "GameProperties": [
            {"Key": "difficulty","Value": "easy"},
            {"Key": "gameMap","Value": "Snowfall"},
            {"Key": "gameMode","Value": "Explore"}
        ],
        "GameSessionId": "gsess-4444dddd-55ee-66ff-77aa-8888bbbb99cc",
        "IpAddress": "192.0.2.0",
        "MaximumPlayerSessionCount": 10,
        "Name": "Matt's Awesome Game win123",
        "Port": "8080",
        "Status": "ACTIVE",
        "Location": "us-west-2"
    },
    {
        "CreationTime": 1469498497.792,
        "CurrentPlayerSessionCount": 3,
        "FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
        "GameProperties": [
            {"Key": "difficulty","Value": "insane"},
            {"Key": "gameMap","Value": "Dystopia"},
            {"Key": "gameMode","Value": "FFA"}
        ],
        "GameSessionId": "gsess-7777dddd-55ee-66ff-44aa-8888bbbb99cc",
        "IpAddress": "192.0.2.0",
        "MaximumPlayerSessionCount": 10,
        "Name": "Matt's Awesome Game  win456",
        "Port": "8080",
        "Status": "ACTIVE",
        "Location": "ca-central-1"
    }
  ]
}
```


Search and sort game sessions

In this example, we want to find all game sessions that allow 20 or more players and are currently accepting new players. We want the results to be sorted so that the newest game sessions are returned first.

This example illustrates a search of a single fleet location. The requested fleet, which resides in us-west-2, also has game sessions in remote locations, including `ap-southeast-2`. As shown, the results are limited to the requested fleet location.

Sample Request

```
{
    "FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
    "Location": "ap-southeast-2",
    "FilterExpression": "maximumSessions>=20 AND hasAvailablePlayerSessions=true",
    "SortExpression": "creationTimeMillis DESC"
    "Limit": 2
}

CLI syntax:
    aws gamelift search-game-sessions --fleet-id
 "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa" --location "ap-southeast-2" --filter-
expression "maximumSessions=20 AND hasAvailablePlayerSessions=true" --sort-expression
 "creationTimeMillis DESC"
```

Sample Response

```
{
  "GameSessions": [
    {
        "CreationTime": 1469498497.792,
        "CurrentPlayerSessionCount": 3,
        "FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
        "GameProperties": [
            {"Key": "difficulty","Value": "hard"},
            {"Key": "gameMap","Value": "Dystopia"},
            {"Key": "gameMode","Value": "Brawl"}
        ],
        "GameSessionId": "gsess-7777dddd-55ee-66ff-44aa-8888bbbb99cc",
        "IpAddress": "192.0.2.0",
        "MaximumPlayerSessionCount": 20,
        "Name": "Matt's Awesome Game  win456",
        "Port": "8080",
        "Status": "ACTIVE",
        "Location": "ap-southeast-2"
    },
    {
```

```
        "CreationTime": 1469498468.057,
        "CurrentPlayerSessionCount": ,
        "FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
        "GameProperties": [
            {"Key": "difficulty","Value": "easy"},
            {"Key": "gameMap","Value": "Snowfall"},
            {"Key": "gameMode","Value": "Explore"}
        ],
        "GameSessionId": "gsess-4444dddd-55ee-66ff-77aa-8888bbbb99cc",
        "IpAddress": "192.0.2.0",
        "MaximumPlayerSessionCount": 50,
        "Name": "Matt's Awesome Game win123",
        "Port": "8080",
        "Status": "ACTIVE",
        "Location": "ap-southeast-2"
    }
  ]
}
```

Search game sessions by custom game properties

This example searches for game sessions based on game map and game mode information, which is stored as key-value pairs in the `GameProperties` of a `GameSession`. In this example, we want to find all game sessions where `gameMode` is `Ffa` (free-for-all), and `gameMap` is either `"Suzuka"` or `"Silverstone"`. We are sorting our results by `gameSessionProperties.difficulty` (with possible values of "novice", "easy", "normal", "hard", or "insane"). Note: `"Value` is evaluated as a string, so the sorted results will be listed by the alphabetic order of the difficulty values.

Sample Request

```
{
    "FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
    "Location": "us-west-2",
    "FilterExpression": "gameSessionProperties.gameMode = 'Ffa' AND
 gameSessionProperties.gameMap = 'Suzuka' OR gameSessionProperties.gameMap =
 'Silverstone'",
    "SortExpression": "gameSessionProperties.difficulty ASC"
    "Limit": 2
}

CLI syntax:
```

```
    aws gamelift search-game-sessions --fleet-id "9999ffff-88ee-77dd-66cc-5555bbbb44aa"
 --filter-expression "gameSessionProperties.gameMode = 'Ffa' AND
 gameSessionProperties.gameMap = 'Suzuka' OR gameSessionProperties.gameMap =
 'Silverstone'" --sort-expression "gameSessionProperties.difficulty DESC"
```

Sample Response


```
{
  "GameSessions": [
    {
        "CreationTime": 1469498468.057,
        "CurrentPlayerSessionCount": 5,
        "FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
        "GameProperties": [
            {"Key": "difficulty","Value": "easy"},
            {"Key": "gameMap","Value": "Suzuka"},
            {"Key": "gameMode","Value": "Ffa"}
        ],
        "GameSessionId": "gsess-4444dddd-55ee-66ff-77aa-8888bbbb99cc",
        "IpAddress": "192.0.2.0",
        "MaximumPlayerSessionCount": 10,
        "Name": "Matt's Awesome Game win123",
        "Port": "8080",
        "Status": "ACTIVE"
        "Location": "us-west-2"
    },
    {
        "CreationTime": 1469498497.792,
        "CurrentPlayerSessionCount": 3,
        "FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
        "GameProperties": [
            {"Key": "difficulty","Value": "normal"},
            {"Key": "gameMap","Value": "Silverstone"},
            {"Key": "gameMode","Value": "Ffa"}
        ],
        "GameSessionId": "gsess-7777dddd-55ee-66ff-44aa-8888bbbb99cc",
        "IpAddress": "192.0.2.0",
        "MaximumPlayerSessionCount": 10,
        "Name": "Matt's Awesome Game  win456",
        "Port": "8080",
        "Status": "ACTIVE"
        "Location": "us-west-2"
```

```
    }
  ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StartFleetActions

Resumes certain types of activity on fleet instances that were suspended with StopFleetActions. For multi-location fleets, fleet actions are managed separately for each location. Currently, this operation is used to restart a fleet's auto-scaling activity.

This operation can be used in the following ways:

- To restart actions on instances in the fleet's home Region, provide a fleet ID and the type of actions to resume.
- To restart actions on instances in one of the fleet's remote locations, provide a fleet ID, a location name, and the type of actions to resume.

If successful, Amazon GameLift once again initiates scaling events as triggered by the fleet's scaling policies. If actions on the fleet location were never stopped, this operation will have no effect.

Learn more

Setting up Amazon GameLift fleets

Request Syntax

```
{
   "Actions": [ "string" ],
   "FleetId": "string",
   "Location": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Actions

List of actions to restart on the fleet.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `AUTO_SCALING`

Required: Yes

FleetId

A unique identifier for the fleet to restart actions on. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Location

The fleet location to restart fleet actions for. Specify a location in the form of an AWS Region code, such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

Response Syntax

```
{
   "FleetArn": "string",
   "FleetId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

FleetId

A unique identifier for the fleet to restart actions on.

Type: String

Pattern: `^fleet-\S+`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

Examples

Restart automatic scaling activity for a fleet

In this example, we want to resume the use a fleet's scaling policies that had be previously suspended. Once started, the scaling policies immediately begin tracking their respective metrics.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "Actions": ["AUTO_SCALING"]
}
```

Sample Response

```
{
   "FleetArn": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
   "FleetId": "arn:aws:gamelift:us-west-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StartGameSessionPlacement

Places a request for a new game session in a queue. When processing a placement request, Amazon GameLift searches for available resources on the queue's destinations, scanning each until it finds resources or the placement request times out.

A game session placement request can also request player sessions. When a new game session is successfully created, Amazon GameLift creates a player session for each player included in the request.

When placing a game session, by default Amazon GameLift tries each fleet in the order they are listed in the queue configuration. Ideally, a queue's destinations are listed in preference order.

Alternatively, when requesting a game session with players, you can also provide latency data for each player in relevant Regions. Latency data indicates the performance lag a player experiences when connected to a fleet in the Region. Amazon GameLift uses latency data to reorder the list of destinations to place the game session in a Region with minimal lag. If latency data is provided for multiple players, Amazon GameLift calculates each Region's average lag for all players and reorders to get the best game play across all players.

To place a new game session request, specify the following:

- The queue name and a set of game session properties and settings
- A unique ID (such as a UUID) for the placement. You use this ID to track the status of the placement request
- (Optional) A set of player data and a unique player ID for each player that you are joining to the new game session (player data is optional, but if you include it, you must also provide a unique ID for each player)
- Latency data for all players (if you want to optimize game play for the players)

If successful, a new game session placement is created.

To track the status of a placement request, call DescribeGameSessionPlacement and check the request's status. If the status is `FULFILLED`, a new game session has been created and a game session ARN and Region are referenced. If the placement request times out, you can resubmit the request or retry it with a different queue.

Request Syntax

```
{
   "DesiredPlayerSessions": [
      {
         "PlayerData": "string",
         "PlayerId": "string"
      }
   ],
   "GameProperties": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "GameSessionData": "string",
   "GameSessionName": "string",
   "GameSessionQueueName": "string",
   "MaximumPlayerSessionCount": number,
   "PlacementId": "string",
   "PlayerLatencies": [
      {
         "LatencyInMilliseconds": number,
         "PlayerId": "string",
         "RegionIdentifier": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameSessionQueueName

Name of the queue to use to place the new game session. You can use either the queue name or ARN value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-]+|^arn:.*:gamesessionqueue\/[a-zA-Z0-9-]+`

Required: Yes

MaximumPlayerSessionCount

The maximum number of players that can be connected simultaneously to the game session.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

PlacementId

A unique identifier to assign to the new game session placement. This value is developer-defined. The value must be unique across all Regions and cannot be reused.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9-]+`

Required: Yes

DesiredPlayerSessions

Set of information on each player to create a player session for.

Type: Array of DesiredPlayerSession objects

Required: No

GameProperties

A set of key-value pairs that can store custom data in a game session. For example: `{"Key": "difficulty", "Value": "novice"}`.

Type: Array of GameProperty objects

Array Members: Maximum number of 16 items.

Required: No

GameSessionData

A set of custom game session properties, formatted as a single string value. This data is passed to a game server process in the `GameSession` object with a request to start a new game session (see Start a Game Session).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 262144.

Required: No

GameSessionName

A descriptive label that is associated with a game session. Session names do not need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

PlayerLatencies

A set of values, expressed in milliseconds, that indicates the amount of latency that a player experiences when connected to AWS Regions. This information is used to try to place the new game session where it can offer the best possible gameplay experience for the players.

Type: Array of PlayerLatency objects

Required: No

Response Syntax

```
{
```

```
   "GameSessionPlacement": {
      "DnsName": "string",
      "EndTime": number,
      "GameProperties": [
         {
            "Key": "string",
            "Value": "string"
         }
      ],
      "GameSessionArn": "string",
      "GameSessionData": "string",
      "GameSessionId": "string",
      "GameSessionName": "string",
      "GameSessionQueueName": "string",
      "GameSessionRegion": "string",
      "IpAddress": "string",
      "MatchmakerData": "string",
      "MaximumPlayerSessionCount": number,
      "PlacedPlayerSessions": [
         {
            "PlayerId": "string",
            "PlayerSessionId": "string"
         }
      ],
      "PlacementId": "string",
      "PlayerLatencies": [
         {
            "LatencyInMilliseconds": number,
            "PlayerId": "string",
            "RegionIdentifier": "string"
         }
      ],
      "Port": number,
      "StartTime": number,
      "Status": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameSessionPlacement

Object that describes the newly created game session placement. This object includes all the information provided in the request, as well as start/end time stamps and placement status.

Type: GameSessionPlacement object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Request a new game session placement with player latency data

This example starts a new game session placement. The request calls for player sessions for two players, and provides each player's latency data for two Regions.

Amazon GameLift uses the latency data provided to determine what order to use when looking for a fleet to host the new game session. It does this by calculating the average player latency for each Region and ordering the queue's destinations starting with the lowest average latency. If the queue "matchmaker-queue" has a latency policy, however, things may change. For example, let's say matchmaker-queue has a policy that caps latency at 130 milliseconds for 60 seconds, followed by no cap. In this scenario, using the sample request below, the following sequence plays out:

1. Amazon GameLift calculates average latency for each Region: `us-east-1` = 110 and `us-west-2` = 100.
2. Amazon GameLift reorders the queue's destinations based on lowest average latency, and prioritizes destinations in Region `us-west-2`.
3. The queue has a latency cap of 130 ms in force for the first 60 seconds of a placement. Amazon GameLift looks for any individual latency values that are greater than 130 ms. There is one: Player 2 reports a 150 ms latency when connected to Region `us-west-2`. As a result, Amazon GameLift temporarily drops all `us-west-2` fleets as valid destinations.
4. Amazon GameLift tries to place the new game session on fleets in Region `us-east-1`, followed by fleets in Regions with no latency information (if any). If available resources are found, the game session is placed and the request fulfilled.
5. If no available resources are found, Amazon GameLift starts a new round of placement attempts, restarting at step 3. If 60 seconds have passed and the latency policy is no longer in force, then fleets in Region `us-west-2` are once more valid destinations -- and are preferred based on their low average latency.
6. Amazon GameLift continues to attempt to place the new game session until it is successful or until the queue's timeout limit is reached.

Sample Request

```
POST / HTTP/1.1
Host: gamelift.us-west-2.amazonaws.com;
Accept-Encoding: identity
Content-Length: 824
User-Agent: aws-cli/1.11.36 Python/2.7.9 Windows/7 botocore/1.4.93
Content-Type: application/x-amz-json-1.0
Authorization: AWS4-HMAC-SHA256  Credential=AKIAIOSFODNN7EXAMPLE/20170406/us-west-2/
gamelift/aws4_request, SignedHeaders=content-type;host;x-amz-date;x-amz-target,
 Signature=wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
X-Amz-Date: 20170406T004805Z
```

```
X-Amz-Target: GameLift.StartGameSessionPlacement

{
   "DesiredPlayerSessions": [
      { "PlayerData": "level:10", "PlayerId": "player1" },
      { "PlayerData": "level:11", "PlayerId": "player2" },
   ],
   "GameProperties": [
      { "Key": "map", "Value": "winter" }
   ],
   "GameSessionName": "matchmaker-1234567890",
   "GameSessionQueueName": "matchmaker-queue",
   "MaximumPlayerSessionCount": 4,
   "PlacementId": "Place-12345",
   "PlayerLatencies": [
      { "LatencyInMilliseconds": 100, "PlayerId": "player1", "RegionIdentifier": "us-
east-1" },
      { "LatencyInMilliseconds":  50, "PlayerId": "player1", "RegionIdentifier": "us-
west-2" },
      { "LatencyInMilliseconds": 120, "PlayerId": "player2", "RegionIdentifier": "us-
east-1" },
      { "LatencyInMilliseconds": 150, "PlayerId": "player2", "RegionIdentifier": "us-
west-2" },
   ]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python

- AWS SDK for Ruby V3

StartMatchBackfill

Finds new players to fill open slots in currently running game sessions. The backfill match process is essentially identical to the process of forming new matches. Backfill requests use the same matchmaker that was used to make the original match, and they provide matchmaking data for all players currently in the game session. FlexMatch uses this information to select new players so that backfilled match continues to meet the original match requirements.

When using FlexMatch with Amazon GameLift managed hosting, you can request a backfill match from a client service by calling this operation with a `GameSessions` ID. You also have the option of making backfill requests directly from your game server. In response to a request, FlexMatch creates player sessions for the new players, updates the `GameSession` resource, and sends updated matchmaking data to the game server. You can request a backfill match at any point after a game session is started. Each game session can have only one active backfill request at a time; a subsequent request automatically replaces the earlier request.

When using FlexMatch as a standalone component, request a backfill match by calling this operation without a game session identifier. As with newly formed matches, matchmaking results are returned in a matchmaking event so that your game can update the game session that is being backfilled.

To request a backfill match, specify a unique ticket ID, the original matchmaking configuration, and matchmaking data for all current players in the game session being backfilled. Optionally, specify the `GameSession` ARN. If successful, a match backfill ticket is created and returned with status set to QUEUED. Track the status of backfill tickets using the same method for tracking tickets for new matches.

Only game sessions created by FlexMatch are supported for match backfill.

Learn more

Backfill existing games with FlexMatch

Matchmaking events (reference)

How Amazon GameLift FlexMatch works

Request Syntax

```
{
   "ConfigurationName": "string",
```

```
   "GameSessionArn": "string",
   "Players": [
      {
         "LatencyInMs": {
            "string" : number
         },
         "PlayerAttributes": {
            "string" : {
               "N": number,
               "S": "string",
               "SDM": {
                  "string" : number
               },
               "SL": [ "string" ]
            }
         },
         "PlayerId": "string",
         "Team": "string"
      }
   ],
   "TicketId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

ConfigurationName

Name of the matchmaker to use for this request. You can use either the configuration name or ARN value. The ARN of the matchmaker that was used with the original game session is listed in the `GameSession` object, `MatchmakerData` property.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]*|^arn:.*:matchmakingconfiguration\/[a-zA-Z0-9-\.]*`

Required: Yes

Players

Match information on all players that are currently assigned to the game session. This information is used by the matchmaker to find new players and add them to the existing game.

You can include up to 199 `Players` in a `StartMatchBackfill` request.

- PlayerID, PlayerAttributes, Team -- This information is maintained in the `GameSession` object, `MatchmakerData` property, for all players who are currently assigned to the game session. The matchmaker data is in JSON syntax, formatted as a string. For more details, see Match Data.

  The backfill request must specify the team membership for every player. Do not specify team if you are not using backfill.
- LatencyInMs -- If the matchmaker uses player latency, include a latency value, in milliseconds, for the Region that the game session is currently in. Do not include latency values for any other Region.

Type: Array of Player objects

Required: Yes

GameSessionArn

A unique identifier for the game session. Use the game session ID. When using FlexMatch as a standalone matchmaking solution, this parameter is not needed.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9:/-]+`

Required: No

TicketId

A unique identifier for a matchmaking ticket. If no ticket ID is specified here, Amazon GameLift will generate one in the form of a UUID. Use this identifier to track the match backfill ticket status and retrieve match results.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]*`

Required: No

Response Syntax

```
{
   "MatchmakingTicket": {
      "ConfigurationArn": "string",
      "ConfigurationName": "string",
      "EndTime": number,
      "EstimatedWaitTime": number,
      "GameSessionConnectionInfo": {
         "DnsName": "string",
         "GameSessionArn": "string",
         "IpAddress": "string",
         "MatchedPlayerSessions": [
            {
               "PlayerId": "string",
               "PlayerSessionId": "string"
            }
         ],
         "Port": number
      },
      "Players": [
         {
            "LatencyInMs": {
               "string" : number
            },
            "PlayerAttributes": {
               "string" : {
                  "N": number,
                  "S": "string",
                  "SDM": {
                     "string" : number
                  },
                  "SL": [ "string" ]
               }
            },
```

```
            "PlayerId": "string",
            "Team": "string"
         }
      ],
      "StartTime": number,
      "Status": "string",
      "StatusMessage": "string",
      "StatusReason": "string",
      "TicketId": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

MatchmakingTicket

Ticket representing the backfill matchmaking request. This object includes the information in the request, ticket status, and match results as generated during the matchmaking process.

Type: MatchmakingTicket object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StartMatchmaking

Uses FlexMatch to create a game match for a group of players based on custom matchmaking rules. With games that use Amazon GameLift managed hosting, this operation also triggers Amazon GameLift to find hosting resources and start a new game session for the new match. Each matchmaking request includes information on one or more players and specifies the FlexMatch matchmaker to use. When a request is for multiple players, FlexMatch attempts to build a match that includes all players in the request, placing them in the same team and finding additional players as needed to fill the match.

To start matchmaking, provide a unique ticket ID, specify a matchmaking configuration, and include the players to be matched. You must also include any player attributes that are required by the matchmaking configuration's rule set. If successful, a matchmaking ticket is returned with status set to QUEUED.

Track matchmaking events to respond as needed and acquire game session connection information for successfully completed matches. Ticket status updates are tracked using event notification through Amazon Simple Notification Service, which is defined in the matchmaking configuration.

Learn more

Add FlexMatch to a game client

Set Up FlexMatch event notification

How Amazon GameLift FlexMatch works

Request Syntax

```
{
   "ConfigurationName": "string",
   "Players": [
      {
         "LatencyInMs": {
            "string" : number
         },
         "PlayerAttributes": {
            "string" : {
               "N": number,
               "S": "string",
               "SDM": {
```

```
                    "string" : number
                },
                "SL": [ "string" ]
            }
        },
        "PlayerId": "string",
        "Team": "string"
    }
  ],
  "TicketId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

ConfigurationName

Name of the matchmaking configuration to use for this request. Matchmaking configurations must exist in the same Region as this request. You can use either the configuration name or ARN value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]*|^arn:.*:matchmakingconfiguration\/[a-zA-Z0-9-\.]*`

Required: Yes

Players

Information on each player to be matched. This information must include a player ID, and may contain player attributes and latency data to be used in the matchmaking process. After a successful match, `Player` objects contain the name of the team the player is assigned to.

You can include up to 10 `Players` in a `StartMatchmaking` request.

Type: Array of Player objects

Required: Yes

TicketId

A unique identifier for a matchmaking ticket. If no ticket ID is specified here, Amazon GameLift will generate one in the form of a UUID. Use this identifier to track the matchmaking ticket status and retrieve match results.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]*`

Required: No

Response Syntax

```
{
   "MatchmakingTicket": {
      "ConfigurationArn": "string",
      "ConfigurationName": "string",
      "EndTime": number,
      "EstimatedWaitTime": number,
      "GameSessionConnectionInfo": {
         "DnsName": "string",
         "GameSessionArn": "string",
         "IpAddress": "string",
         "MatchedPlayerSessions": [
            {
               "PlayerId": "string",
               "PlayerSessionId": "string"
            }
         ],
         "Port": number
      },
      "Players": [
         {
```

```
            "LatencyInMs": {
               "string" : number
            },
            "PlayerAttributes": {
               "string" : {
                  "N": number,
                  "S": "string",
                  "SDM": {
                     "string" : number
                  },
                  "SL": [ "string" ]
               }
            },
            "PlayerId": "string",
            "Team": "string"
         }
      ],
      "StartTime": number,
      "Status": "string",
      "StatusMessage": "string",
      "StatusReason": "string",
      "TicketId": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

MatchmakingTicket

Ticket representing the matchmaking request. This object include the information included in the request, ticket status, and match results as generated during the matchmaking process.

Type: MatchmakingTicket object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StopFleetActions

Suspends certain types of activity in a fleet location. Currently, this operation is used to stop auto-scaling activity. For multi-location fleets, fleet actions are managed separately for each location.

Stopping fleet actions has several potential purposes. It allows you to temporarily stop auto-scaling activity but retain your scaling policies for use in the future. For multi-location fleets, you can set up fleet-wide auto-scaling, and then opt out of it for certain locations.

This operation can be used in the following ways:

- To stop actions on instances in the fleet's home Region, provide a fleet ID and the type of actions to suspend.
- To stop actions on instances in one of the fleet's remote locations, provide a fleet ID, a location name, and the type of actions to suspend.

If successful, Amazon GameLift no longer initiates scaling events except in response to manual changes using UpdateFleetCapacity.

Learn more

Setting up Amazon GameLift Fleets

Request Syntax

```
{
   "Actions": [ "string" ],
   "FleetId": "string",
   "Location": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Actions

List of actions to suspend on the fleet.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `AUTO_SCALING`

Required: Yes

FleetId

A unique identifier for the fleet to stop actions on. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

Location

The fleet location to stop fleet actions for. Specify a location in the form of an AWS Region code, such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

Response Syntax

```
{
   "FleetArn": "string",
   "FleetId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

FleetId

A unique identifier for the fleet to stop actions on.

Type: String

Pattern: `^fleet-\S+`

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

Examples

Stop auto-scaling activity in a fleet's remote location

In this example, we want to suspend all auto-scaling activity for a fleet's capacity in the remote location of `ca-central-1`. The fleet in question resides in the AWS Region us-west-2 (which is implicitly defined as our default Region). Once the policies are suspended, fleet capacity remains at the last "desired instances" setting unless fleet capacity is manually adjusted.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "Location": "ca-central-1",
    "Actions": ["AUTO_SCALING"]
}
```

Sample Response

```
{
   "FleetArn": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
```

```
   "FleetId": "arn:aws:gamelift:us-west-2::fleet/
fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StopGameSessionPlacement

Cancels a game session placement that is in `PENDING` status. To stop a placement, provide the placement ID values. If successful, the placement is moved to `CANCELLED` status.

Request Syntax

```
{
   "PlacementId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

PlacementId

A unique identifier for a game session placement to stop.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9-]+`

Required: Yes

Response Syntax

```
{
   "GameSessionPlacement": {
```

```
      "DnsName": "string",
      "EndTime": number,
      "GameProperties": [
         {
            "Key": "string",
            "Value": "string"
         }
      ],
      "GameSessionArn": "string",
      "GameSessionData": "string",
      "GameSessionId": "string",
      "GameSessionName": "string",
      "GameSessionQueueName": "string",
      "GameSessionRegion": "string",
      "IpAddress": "string",
      "MatchmakerData": "string",
      "MaximumPlayerSessionCount": number,
      "PlacedPlayerSessions": [
         {
            "PlayerId": "string",
            "PlayerSessionId": "string"
         }
      ],
      "PlacementId": "string",
      "PlayerLatencies": [
         {
            "LatencyInMilliseconds": number,
            "PlayerId": "string",
            "RegionIdentifier": "string"
         }
      ],
      "Port": number,
      "StartTime": number,
      "Status": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameSessionPlacement

Object that describes the canceled game session placement, with CANCELLED status and an end time stamp.

Type: GameSessionPlacement object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface

- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

StopMatchmaking

Cancels a matchmaking ticket or match backfill ticket that is currently being processed. To stop the matchmaking operation, specify the ticket ID. If successful, work on the ticket is stopped, and the ticket status is changed to `CANCELLED`.

This call is also used to turn off automatic backfill for an individual game session. This is for game sessions that are created with a matchmaking configuration that has automatic backfill enabled. The ticket ID is included in the `MatchmakerData` of an updated game session object, which is provided to the game server.

> **Note**
>
> If the operation is successful, the service sends back an empty JSON struct with the HTTP 200 response (not an empty HTTP body).

Learn more

Add FlexMatch to a game client

Request Syntax

```
{
   "TicketId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

TicketId

A unique identifier for a matchmaking ticket.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]*`

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

SuspendGameServerGroup

This operation is used with the Amazon GameLift FleetIQ solution and game server groups.

Temporarily stops activity on a game server group without terminating instances or the game server group. You can restart activity by calling ResumeGameServerGroup. You can suspend the following activity:

- **Instance type replacement** - This activity evaluates the current game hosting viability of all Spot instance types that are defined for the game server group. It updates the Auto Scaling group to remove nonviable Spot Instance types, which have a higher chance of game server interruptions. It then balances capacity across the remaining viable Spot Instance types. When this activity is suspended, the Auto Scaling group continues with its current balance, regardless of viability. Instance protection, utilization metrics, and capacity scaling activities continue to be active.

To suspend activity, specify a game server group ARN and the type of activity to be suspended. If successful, a `GameServerGroup` object is returned showing that the activity is listed in `SuspendedActions`.

Learn more

Amazon GameLift FleetIQ Guide

Request Syntax

```
{
   "GameServerGroupName": "string",
   "SuspendActions": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameServerGroupName

A unique identifier for the game server group. Use either the name or ARN value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]+|^arn:.*:gameservergroup\/[a-zA-Z0-9-\.]+`

Required: Yes

SuspendActions

The activity to suspend for this game server group.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `REPLACE_INSTANCE_TYPES`

Required: Yes

Response Syntax

```
{
   "GameServerGroup": {
      "AutoScalingGroupArn": "string",
      "BalancingStrategy": "string",
      "CreationTime": number,
      "GameServerGroupArn": "string",
      "GameServerGroupName": "string",
      "GameServerProtectionPolicy": "string",
      "InstanceDefinitions": [
         {
            "InstanceType": "string",
            "WeightedCapacity": "string"
         }
      ],
      "LastUpdatedTime": number,
      "RoleArn": "string",
      "Status": "string",
      "StatusReason": "string",
```

```
        "SuspendedActions": [ "string" ]
    }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameServerGroup

An object that describes the game server group resource, with the `SuspendedActions` property updated to reflect the suspended activity.

Type: GameServerGroup object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Suspend a game server group activity

This example suspends instance balancing activities for the game server group.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
   "GameServerGroupName": "MegaFrogServers_NA",
   "SuspendActions": [ "REPLACE_INSTANCE_TYPES" ]
}

CLI command:

aws gamelift suspend-game-server-group \
    --game-server-group MegaFrogServers_NA \
    --suspend-actions REPLACE_INSTANCE_TYPES
```

Sample Response

```
{
   "GameServerGroup": {
      "AutoScalingGroupArn": "arn:aws:autoscaling:us-
west-2:123456789012:autoScalingGroup:1111aaaa-22bb-33cc-44dd-5555eeee66ff:autoScalingGroupName/
MegaFrogServers_NA",
      "BalancingStrategy": "SPOT_PREFERRED",
      "CreationTime": 1496365885.44,
      "GameServerGroupArn": "arn:aws:gamelift:us-west-2::GameServerGroup/
MegaFrogServers_NA",
      "GameServerGroupName": " MegaFrogServers_NA",
      "GameServerProtectionPolicy": "NO_PROTECTION",
      "InstanceDefinitions": [
         {
            "InstanceType": "c5.2xlarge",
            "WeightedCapacity": "1"
         },
```

```
         {
            "InstanceType": "c5.4xlarge",
            "WeightedCapacity": "2"
         }
      ],
      "LastUpdatedTime": 1496365885.44,
      "RoleArn": "arn:aws:iam:123456789012::role/GameLiftGsgRole",
      "Status": "ACTIVE",
      "StatusReason": "",
      "SuspendedActions": [REPLACE_INSTANCE_TYPES]
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

TagResource

Assigns a tag to an Amazon GameLift resource. You can use tags to organize resources, create IAM permissions policies to manage access to groups of resources, customize AWS cost breakdowns, and more. This operation handles the permissions necessary to manage tags for Amazon GameLift resources that support tagging.

To add a tag to a resource, specify the unique ARN value for the resource and provide a tag list containing one or more tags. The operation succeeds even if the list includes tags that are already assigned to the resource.

Learn more

Tagging AWS Resources in the *AWS General Reference*

AWS Tagging Strategies

Related actions

All APIs by task

Request Syntax

```
{
   "ResourceARN": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

ResourceARN

The Amazon Resource Name (ARN) that uniquely identifies the Amazon GameLift resource that you want to assign tags to. Amazon GameLift includes resource ARNs in the data object for the resource. You can retrieve the ARN by calling a `List` or `Describe` operation for the resource type.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

Tags

A list of one or more tags to assign to the specified Amazon GameLift resource. Tags are developer-defined and structured as key-value pairs. The maximum tag limit may be lower than stated. See Tagging AWS Resources for tagging limits.

Type: Array of Tag objects

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UntagResource

Removes a tag assigned to a Amazon GameLift resource. You can use resource tags to organize AWS resources for a range of purposes. This operation handles the permissions necessary to manage tags for Amazon GameLift resources that support tagging.

To remove a tag from a resource, specify the unique ARN value for the resource and provide a string list containing one or more tags to remove. This operation succeeds even if the list includes tags that aren't assigned to the resource.

Learn more

Tagging AWS Resources in the *AWS General Reference*

AWS Tagging Strategies

Related actions

All APIs by task

Request Syntax

```
{
   "ResourceARN": "string",
   "TagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

ResourceARN

The Amazon Resource Name (ARN) that uniquely identifies the Amazon GameLift resource that you want to remove tags from. Amazon GameLift includes resource ARNs in the data object

for the resource. You can retrieve the ARN by calling a `List` or `Describe` operation for the resource type.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

TagKeys

A list of one or more tag keys to remove from the specified Amazon GameLift resource.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 200 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

TaggingFailedException

The requested tagging operation did not succeed. This may be due to invalid tag format or the maximum tag limit may have been exceeded. Resolve the issue before retrying.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateAlias

Updates properties for an alias. To update properties, specify the alias ID to be updated and provide the information to be changed. To reassign an alias to another fleet, provide an updated routing strategy. If successful, the updated alias record is returned.

Related actions

All APIs by task

Request Syntax

```
{
   "AliasId": "string",
   "Description": "string",
   "Name": "string",
   "RoutingStrategy": {
      "FleetId": "string",
      "Message": "string",
      "Type": "string"
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

AliasId

A unique identifier for the alias that you want to update. You can use either the alias ID or ARN value.

Type: String

Pattern: `^alias-\S+|^arn:.*:alias\/alias-\S+`

Required: Yes

Description

A human-readable description of the alias.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Name

A descriptive label that is associated with an alias. Alias names do not need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `.*\S.*`

Required: No

RoutingStrategy

The routing configuration, including routing type and fleet target, for the alias.

Type: RoutingStrategy object

Required: No

Response Syntax

```
{
   "Alias": {
      "AliasArn": "string",
      "AliasId": "string",
      "CreationTime": number,
      "Description": "string",
      "LastUpdatedTime": number,
      "Name": "string",
```

```
      "RoutingStrategy": {
         "FleetId": "string",
         "Message": "string",
         "Type": "string"
      }
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Alias

The updated alias resource.

Type: Alias object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateBuild

Updates metadata in a build resource, including the build name and version. To update the metadata, specify the build ID to update and provide the new values. If successful, a build object containing the updated metadata is returned.

Learn more

Upload a Custom Server Build

All APIs by task

Request Syntax

```
{
   "BuildId": "string",
   "Name": "string",
   "Version": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

BuildId

A unique identifier for the build to update. You can use either the build ID or ARN value.

Type: String

Pattern: `^build-\S+|^arn:.*:build\/build-\S+`

Required: Yes

Name

A descriptive label associated with a build. Build names don't need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Version

Version information associated with a build or script. Version strings don't need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Response Syntax

```
{
   "Build": {
      "BuildArn": "string",
      "BuildId": "string",
      "CreationTime": number,
      "Name": "string",
      "OperatingSystem": "string",
      "ServerSdkVersion": "string",
      "SizeOnDisk": number,
      "Status": "string",
      "Version": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Build

The updated build resource.

Type: Build object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Change a build resource

This example updates a build resource with a new name and version number, which are the only elements that can be changed. The returned build object verifies that the changes were made successfully.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
    "Name": "My_Game_Server_Build_Foo",
    "Version": "12345.f00"
}
```

Sample Response

```
{
    "Build": {
        "BuildArn": "arn:aws:gamelift:us-west-2::build/
build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "CreationTime": 1496708916.18,
        "Name": "My_Game_Server_Build_Foo",
        "OperatingSystem": "AMAZON_LINUX_2",
        "SizeOnDisk": 1304924,
        "Status": "READY",
        "Version": "12345.f00"
    }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3

- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateFleetAttributes

Updates a fleet's mutable attributes, including game session protection and resource creation limits.

To update fleet attributes, specify the fleet ID and the property values that you want to change.

If successful, an updated `FleetAttributes` object is returned.

Learn more

Setting up Amazon GameLift fleets

Request Syntax

```
{
   "AnywhereConfiguration": {
      "Cost": "string"
   },
   "Description": "string",
   "FleetId": "string",
   "MetricGroups": [ "string" ],
   "Name": "string",
   "NewGameSessionProtectionPolicy": "string",
   "ResourceCreationLimitPolicy": {
      "NewGameSessionsPerCreator": number,
      "PolicyPeriodInMinutes": number
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to update attribute metadata for. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

AnywhereConfiguration

Amazon GameLift Anywhere configuration options.

Type: AnywhereConfiguration object

Required: No

Description

A human-readable description of a fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

MetricGroups

The name of a metric group to add this fleet to. Use a metric group in Amazon CloudWatch to aggregate the metrics from multiple fleets. Provide an existing metric group name, or create a new metric group by providing a new name. A fleet can only be in one metric group at a time.

Type: Array of strings

Array Members: Maximum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

Name

A descriptive label that is associated with a fleet. Fleet names do not need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

NewGameSessionProtectionPolicy

The game session protection policy to apply to all new game sessions created in this fleet. Game sessions that already exist are not affected. You can set protection for individual game sessions using UpdateGameSession .

- **NoProtection** -- The game session can be terminated during a scale-down event.
- **FullProtection** -- If the game session is in an `ACTIVE` status, it cannot be terminated during a scale-down event.

Type: String

Valid Values: `NoProtection | FullProtection`

Required: No

ResourceCreationLimitPolicy

Policy settings that limit the number of game sessions an individual player can create over a span of time.

Type: ResourceCreationLimitPolicy object

Required: No

Response Syntax

```
{
   "FleetArn": "string",
   "FleetId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

FleetId

A unique identifier for the fleet that was updated.

Type: String

Pattern: `^fleet-\S+`

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidFleetStatusException

The requested operation would cause a conflict with the current state of a resource associated with the request and/or the fleet. Resolve the conflict before retrying.

HTTP Status Code: 400

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

LimitExceededException

The requested operation would cause the resource to exceed the allowed service limit. Resolve the issue before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateFleetCapacity

Updates capacity settings for a fleet. For fleets with multiple locations, use this operation to manage capacity settings in each location individually. Fleet capacity determines the number of game sessions and players that can be hosted based on the fleet configuration. Use this operation to set the following fleet capacity properties:

- Minimum/maximum size: Set hard limits on fleet capacity. Amazon GameLift cannot set the fleet's capacity to a value outside of this range, whether the capacity is changed manually or through automatic scaling.
- Desired capacity: Manually set the number of Amazon EC2 instances to be maintained in a fleet location. Before changing a fleet's desired capacity, you may want to call DescribeEC2InstanceLimits to get the maximum capacity of the fleet's Amazon EC2 instance type. Alternatively, consider using automatic scaling to adjust capacity based on player demand.

This operation can be used in the following ways:

- To update capacity for a fleet's home Region, or if the fleet has no remote locations, omit the `Location` parameter. The fleet must be in `ACTIVE` status.
- To update capacity for a fleet's remote location, include the `Location` parameter set to the location to be updated. The location must be in `ACTIVE` status.

If successful, capacity settings are updated immediately. In response a change in desired capacity, Amazon GameLift initiates steps to start new instances or terminate existing instances in the requested fleet location. This continues until the location's active instance count matches the new desired instance count. You can track a fleet's current capacity by calling DescribeFleetCapacity or DescribeFleetLocationCapacity. If the requested desired instance count is higher than the instance type's limit, the `LimitExceeded` exception occurs.

Learn more

Scaling fleet capacity

Request Syntax

```
{
   "DesiredInstances": number,
```

```
    "FleetId": "string",
    "Location": "string",
    "MaxSize": number,
    "MinSize": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to update capacity settings for. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

DesiredInstances

The number of Amazon EC2 instances you want to maintain in the specified fleet location. This value must fall between the minimum and maximum size limits. Changes in desired instance value can take up to 1 minute to be reflected when viewing the fleet's capacity settings.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

Location

The name of a remote location to update fleet capacity settings for, in the form of an AWS Region code such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[A-Za-z0-9\-]+

Required: No

MaxSize

The maximum number of instances that are allowed in the specified fleet location. If this parameter is not set, the default is 1.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

MinSize

The minimum number of instances that are allowed in the specified fleet location. If this parameter is not set, the default is 0.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

Response Syntax

```
{
   "FleetArn": "string",
   "FleetId": "string",
   "Location": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

FleetId

A unique identifier for the fleet that was updated.

Type: String

Pattern: `^fleet-\S+`

Location

The remote location being updated, expressed as an AWS Region code, such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidFleetStatusException

The requested operation would cause a conflict with the current state of a resource associated with the request and/or the fleet. Resolve the conflict before retrying.

HTTP Status Code: 400

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

LimitExceededException

The requested operation would cause the resource to exceed the allowed service limit. Resolve the issue before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

Examples

Increase fleet capacity

This example requests an increase in fleet capacity and raises the maximum allowed instances to accommodate the request. Because no location is specified, the update is applied to the fleet's

home Region (where the fleet was created), which is `us-west-2`. Note that a fleet's home Region is always identified in the fleet ARN.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
   "FleetId": "arn:aws:gamelift:us-west-2::fleet/
fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
   "DesiredInstances": 10,
   "MaxSize": 10
}
```

Sample Response

```
{
    "FleetArn":"arn:aws:gamelift:us-west-2::fleet/
fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
    "FleetId": "fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
    "Location": "us-west-2"
}
```

Update capacity settings for a fleet's remote location

This example adjusts the minimum/maximum allowed instances for one remote location in a multi-location fleet. For fleets that use auto-scaling, allowed instance settings define the scaling range for a fleet location. In this example, the updates are being applied to the remote location `sa-east-1`.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
    "FleetId": "arn:aws:gamelift:us-west-2::fleet/
fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
    "Location": "sa-east-1",
    "MinSize": 10,
```

```
    "MaxSize": 100
}
```

Sample Response

```
{
    "FleetArn":"arn:aws:gamelift:us-west-2::fleet/
fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
    "FleetId": "fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
    "Location": "sa-east-1"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateFleetPortSettings

Updates permissions that allow inbound traffic to connect to game sessions that are being hosted on instances in the fleet.

To update settings, specify the fleet ID to be updated and specify the changes to be made. List the permissions you want to add in `InboundPermissionAuthorizations`, and permissions you want to remove in `InboundPermissionRevocations`. Permissions to be removed must match existing fleet permissions.

If successful, the fleet ID for the updated fleet is returned. For fleets with remote locations, port setting updates can take time to propagate across all locations. You can check the status of updates in each location by calling `DescribeFleetPortSettings` with a location name.

Learn more

Setting up Amazon GameLift fleets

Request Syntax

```
{
   "FleetId": "string",
   "InboundPermissionAuthorizations": [
      {
         "FromPort": number,
         "IpRange": "string",
         "Protocol": "string",
         "ToPort": number
      }
   ],
   "InboundPermissionRevocations": [
      {
         "FromPort": number,
         "IpRange": "string",
         "Protocol": "string",
         "ToPort": number
      }
   ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to update port settings for. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

InboundPermissionAuthorizations

A collection of port settings to be added to the fleet resource.

Type: Array of IpPermission objects

Array Members: Maximum number of 50 items.

Required: No

InboundPermissionRevocations

A collection of port settings to be removed from the fleet resource.

Type: Array of IpPermission objects

Array Members: Maximum number of 50 items.

Required: No

Response Syntax

```
{
   "FleetArn": "string",
   "FleetId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

FleetId

A unique identifier for the fleet that was updated.

Type: String

Pattern: `^fleet-\S+`

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidFleetStatusException

The requested operation would cause a conflict with the current state of a resource associated with the request and/or the fleet. Resolve the conflict before retrying.

HTTP Status Code: 400

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

LimitExceededException

The requested operation would cause the resource to exceed the allowed service limit. Resolve the issue before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Update fleet to open to enable SSH access

The following example opens port 22 for SSH access:

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
   "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
   "InboundPermissionAuthorizations": [
      {
         "FromPort": 22,
         "IpRange": "54.186.139.221/32",
         "Protocol": "TCP",
         "ToPort": 22
      }
   ]
}
```

Sample Response

```
{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"
}
```

Update fleet to enable Windows Remote Desktop access

The following example opens port 3389 for Windows Remote Desktop access:

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
   "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
   "InboundPermissionAuthorizations": [
      {
         "FromPort": 3389,
         "IpRange": "54.186.139.221/32",
         "Protocol": "TCP",
         "ToPort": 3389
      }
   ]
```

```
}
```

Sample Response

```
{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateGameServer

This operation is used with the Amazon GameLift FleetIQ solution and game server groups.

Updates information about a registered game server to help Amazon GameLift FleetIQ track game server availability. This operation is called by a game server process that is running on an instance in a game server group.

Use this operation to update the following types of game server information. You can make all three types of updates in the same request:

- To update the game server's utilization status from `AVAILABLE` (when the game server is available to be claimed) to `UTILIZED` (when the game server is currently hosting games). Identify the game server and game server group and specify the new utilization status. You can't change the status from to `UTILIZED` to `AVAILABLE` .
- To report health status, identify the game server and game server group and set health check to `HEALTHY`. If a game server does not report health status for a certain length of time, the game server is no longer considered healthy. As a result, it will be eventually deregistered from the game server group to avoid affecting utilization metrics. The best practice is to report health every 60 seconds.
- To change game server metadata, provide updated game server data.

Once a game server is successfully updated, the relevant statuses and timestamps are updated.

Learn more

Amazon GameLift FleetIQ Guide

Request Syntax

```
{
   "GameServerData": "string",
   "GameServerGroupName": "string",
   "GameServerId": "string",
   "HealthCheck": "string",
   "UtilizationStatus": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameServerGroupName

A unique identifier for the game server group where the game server is running.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]+|^arn:.*:gameservergroup\/[a-zA-Z0-9-\.]+`

Required: Yes

GameServerId

A custom string that uniquely identifies the game server to update.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]+`

Required: Yes

GameServerData

A set of custom game server properties, formatted as a single string value. This data is passed to a game client or service when it requests information on game servers.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `.*\S.*`

Required: No

HealthCheck

Indicates health status of the game server. A request that includes this parameter updates the game server's *LastHealthCheckTime* timestamp.

Type: String

Valid Values: `HEALTHY`

Required: No

UtilizationStatus

Indicates if the game server is available or is currently hosting gameplay. You can update a game server status from `AVAILABLE` to `UTILIZED`, but you can't change a the status from `UTILIZED` to `AVAILABLE`.

Type: String

Valid Values: `AVAILABLE | UTILIZED`

Required: No

Response Syntax

```
{
   "GameServer": {
      "ClaimStatus": "string",
      "ConnectionInfo": "string",
      "GameServerData": "string",
      "GameServerGroupArn": "string",
      "GameServerGroupName": "string",
      "GameServerId": "string",
      "InstanceId": "string",
      "LastClaimTime": number,
      "LastHealthCheckTime": number,
      "RegistrationTime": number,
      "UtilizationStatus": "string"
   }
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameServer

Object that describes the newly updated game server.

Type: GameServer object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Report that a game server is now hosting gameplay

This example changes the utilization status of a game server and reports the results of a health check. Prior to this call, the game server's utilization status is `AVAILABLE` and the claim status is `CLAIMED`.

Sample Request

```
{
   "GameServerGroupName": "MegaFrogServers_NA",
   "HealthCheck": "HEALTHY"},
   "UtilizationStatus": "UTILIZED"
}

CLI command:

aws gamelift update-game-server \
    --game-server-group-name MegaFrogServers_NA \
    --health-check HEALTHY \
    --utilization-status UTILIZED
```

Sample Response

```
{
   "GameServer": {
      "ClaimStatus": "",
      "ConnectionInfo": "192.0.2.0.80",
      "GameServerData": "",
      "GameServerGroupArn": "arn:aws:gamelift:us-west-2::GameServerGroup/
MegaFrogServers_NA",
      "GameServerGroupName": "MegaFrogServers_NA",
      "GameServerId": "mega-frog-game-12345678",
      "InstanceId": "i-1234567890abcdef0",
      "LastClaimTime": 1580218290.293,
      "LastHealthCheckTime": 1580218294.293,
      "RegistrationTime": 1580218197.293,
      "UtilizationStatus": "UTILIZED"
   }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateGameServerGroup

This operation is used with the Amazon GameLift FleetIQ solution and game server groups.

Updates Amazon GameLift FleetIQ-specific properties for a game server group. Many Auto Scaling group properties are updated on the Auto Scaling group directly, including the launch template, Auto Scaling policies, and maximum/minimum/desired instance counts.

To update the game server group, specify the game server group ID and provide the updated values. Before applying the updates, the new values are validated to ensure that Amazon GameLift FleetIQ can continue to perform instance balancing activity. If successful, a `GameServerGroup` object is returned.

Learn more

Amazon GameLift FleetIQ Guide

Request Syntax

```
{
   "BalancingStrategy": "string",
   "GameServerGroupName": "string",
   "GameServerProtectionPolicy": "string",
   "InstanceDefinitions": [
      {
         "InstanceType": "string",
         "WeightedCapacity": "string"
      }
   ],
   "RoleArn": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameServerGroupName

A unique identifier for the game server group. Use either the name or ARN value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]+|^arn:.*:gameservergroup\/[a-zA-Z0-9-\.]+`

Required: Yes

BalancingStrategy

Indicates how Amazon GameLift FleetIQ balances the use of Spot Instances and On-Demand Instances in the game server group. Method options include the following:

- `SPOT_ONLY` - Only Spot Instances are used in the game server group. If Spot Instances are unavailable or not viable for game hosting, the game server group provides no hosting capacity until Spot Instances can again be used. Until then, no new instances are started, and the existing nonviable Spot Instances are terminated (after current gameplay ends) and are not replaced.
- `SPOT_PREFERRED` - (default value) Spot Instances are used whenever available in the game server group. If Spot Instances are unavailable, the game server group continues to provide hosting capacity by falling back to On-Demand Instances. Existing nonviable Spot Instances are terminated (after current gameplay ends) and are replaced with new On-Demand Instances.
- `ON_DEMAND_ONLY` - Only On-Demand Instances are used in the game server group. No Spot Instances are used, even when available, while this balancing strategy is in force.

Type: String

Valid Values: `SPOT_ONLY | SPOT_PREFERRED | ON_DEMAND_ONLY`

Required: No

GameServerProtectionPolicy

A flag that indicates whether instances in the game server group are protected from early termination. Unprotected instances that have active game servers running might be terminated during a scale-down event, causing players to be dropped from the game. Protected instances cannot be terminated while there are active game servers running except in the event of a forced game server group deletion (see). An exception to this is with Spot Instances, which can

be terminated by AWS regardless of protection status. This property is set to `NO_PROTECTION` by default.

Type: String

Valid Values: `NO_PROTECTION | FULL_PROTECTION`

Required: No

InstanceDefinitions

An updated list of Amazon EC2 instance types to use in the Auto Scaling group. The instance definitions must specify at least two different instance types that are supported by Amazon GameLift FleetIQ. This updated list replaces the entire current list of instance definitions for the game server group. For more information on instance types, see EC2 Instance Types in the *Amazon EC2 User Guide*. You can optionally specify capacity weighting for each instance type. If no weight value is specified for an instance type, it is set to the default value "1". For more information about capacity weighting, see Instance Weighting for Amazon EC2 Auto Scaling in the Amazon EC2 Auto Scaling User Guide.

Type: Array of InstanceDefinition objects

Array Members: Minimum number of 2 items. Maximum number of 20 items.

Required: No

RoleArn

The Amazon Resource Name (ARN) for an IAM role that allows Amazon GameLift to access your Amazon EC2 Auto Scaling groups.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^arn:.*:role\/[\w+=,.@-]+`

Required: No

Response Syntax

```
{
   "GameServerGroup": {
```

```
      "AutoScalingGroupArn": "string",
      "BalancingStrategy": "string",
      "CreationTime": number,
      "GameServerGroupArn": "string",
      "GameServerGroupName": "string",
      "GameServerProtectionPolicy": "string",
      "InstanceDefinitions": [
         {
            "InstanceType": "string",
            "WeightedCapacity": "string"
         }
      ],
      "LastUpdatedTime": number,
      "RoleArn": "string",
      "Status": "string",
      "StatusReason": "string",
      "SuspendedActions": [ "string" ]
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameServerGroup

An object that describes the game server group resource with updated properties.

Type: GameServerGroup object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Update instance definitions for the game server group

This example specifies a new set of instance definitions for the game server group. Previously, the game server group used a Spot-only balancing strategy with c3.xlarge and c4.xlarge instance types. This request removes the old instance definitions and replaces them. As shown in the response, because the new definitions do not specify `WeightedCapacity`, these are set to the default value of 1.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
   "GameServerGroupName": "MegaFrogServers_NA",
     "InstanceDefinitions": [
        {"InstanceType": "c4.xlarge"},
        {"InstanceType": "c5.xlarge"}
     ]
}
```

```
CLI command:

aws gamelift update-game-server-group \
    --game-server-group MegaFrogServers_NA \
    --instance-definitions '[{"InstanceType": "c4.xlarge"}, {"InstanceType":
 "c5.xlarge"}]'
```

Sample Response

```
{
   "GameServerGroup": {
      "AutoScalingGroupArn": "arn:aws:autoscaling:us-
west-2:123456789012:autoScalingGroup:1111aaaa-22bb-33cc-44dd-5555eeee66ff:autoScalingGroupName/
MegaFrogServers_NA",
      "BalancingStrategy": "SPOT_ONLY",
      "CreationTime": 1496365885.44,
      "GameServerGroupArn": "arn:aws:gamelift:us-west-2::GameServerGroup/
MegaFrogServers_NA",
      "GameServerGroupName": " MegaFrogServers_NA",
      "GameServerProtectionPolicy": "NO_PROTECTION",
      "InstanceDefinitions": [
         {
            "InstanceType": "c4.xlarge",
            "WeightedCapacity": "1"
         },
         {
            "InstanceType": "c5.xlarge",
            "WeightedCapacity": "1"
         }
      ],
      "LastUpdatedTime": 1496365885.44,
      "RoleArn": "arn:aws:iam:123456789012::role/GameLiftGsgRole",
      "Status": "ACTIVE",
      "StatusReason": "",
      "SuspendedActions": []
}
```

Change the balancing strategy for a game server group

This example changes the game server group's balancing strategy from preferring Spot instances to using On-Demand instances only. In this example scenario, the game developer wants to eliminate the possibility of game session interruptions during an upcoming highly-anticipated

content launch. Later, once player demand settles, the balancing strategy can be updated again to use Spot instances for cost savings.

HTTP requests are authenticated using an AWS Signature Version 4 signature in the `Authorization` header field.

Sample Request

```
{
   "GameServerGroupName": "MegaFrogServers_NA",
      "BalancingStrategy": "ON_DEMAND_ONLY"
}

CLI command:

aws gamelift update-game-server-group \
    --game-server-group MegaFrogServers_NA \
    --balancing-strategy ON_DEMAND_ONLY
```

Sample Response

```
{
   "GameServerGroup": {
      "AutoScalingGroupArn": "arn:aws:autoscaling:us-
west-2:123456789012:autoScalingGroup:1111aaaa-22bb-33cc-44dd-5555eeee66ff:autoScalingGroupName/
MegaFrogServers_NA",
      "BalancingStrategy": "ON_DEMAND_ONLY",
      "CreationTime": 1496365885.44,
      "GameServerGroupArn": "arn:aws:gamelift:us-west-2::GameServerGroup/
MegaFrogServers_NA",
      "GameServerGroupName": " MegaFrogServers_NA",
      "GameServerProtectionPolicy": "FULL_PROTECTION",
      "InstanceDefinitions": [
         {
            "InstanceType": "c4.xlarge",
            "WeightedCapacity": "1"
         },
         {
            "InstanceType": "c5.xlarge",
            "WeightedCapacity": "1"
         }
      ],
      "LastUpdatedTime": 1496365885.44,
```

```
      "RoleArn": "arn:aws:iam:123456789012::role/GameLiftGsgRole",
      "Status": "ACTIVE",
      "StatusReason": "",
      "SuspendedActions": []
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateGameSession

Updates the mutable properties of a game session.

To update a game session, specify the game session ID and the values you want to change.

If successful, the updated `GameSession` object is returned.

All APIs by task

Request Syntax

```
{
   "GameProperties": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "GameSessionId": "string",
   "MaximumPlayerSessionCount": number,
   "Name": "string",
   "PlayerSessionCreationPolicy": "string",
   "ProtectionPolicy": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

GameSessionId

A unique identifier for the game session to update.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9:/-]+`

Required: Yes

GameProperties

A set of key-value pairs that can store custom data in a game session. For example: `{"Key": "difficulty", "Value": "novice"}`. You can use this parameter to modify game properties in an active game session. This action adds new properties and modifies existing properties. There is no way to delete properties. For an example, see Update the value of a game property.

Type: Array of GameProperty objects

Array Members: Maximum number of 16 items.

Required: No

MaximumPlayerSessionCount

The maximum number of players that can be connected simultaneously to the game session.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

Name

A descriptive label that is associated with a game session. Session names do not need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

PlayerSessionCreationPolicy

A policy that determines whether the game session is accepting new players.

Type: String

Valid Values: `ACCEPT_ALL | DENY_ALL`

Required: No

ProtectionPolicy

Game session protection policy to apply to this game session only.

- **NoProtection** -- The game session can be terminated during a scale-down event.
- **FullProtection** -- If the game session is in an `ACTIVE` status, it cannot be terminated during a scale-down event.

Type: String

Valid Values: `NoProtection | FullProtection`

Required: No

Response Syntax

```
{
   "GameSession": {
      "CreationTime": number,
      "CreatorId": "string",
      "CurrentPlayerSessionCount": number,
      "DnsName": "string",
      "FleetArn": "string",
      "FleetId": "string",
      "GameProperties": [
         {
            "Key": "string",
            "Value": "string"
         }
      ],
      "GameSessionData": "string",
      "GameSessionId": "string",
      "IpAddress": "string",
      "Location": "string",
      "MatchmakerData": "string",
      "MaximumPlayerSessionCount": number,
      "Name": "string",
      "PlayerSessionCreationPolicy": "string",
      "Port": number,
```

```
      "Status": "string",
      "StatusReason": "string",
      "TerminationTime": number
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameSession

The updated game session properties.

Type: GameSession object

Errors

For information about the errors that are common to all actions, see Common Errors.

ConflictException

The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.

HTTP Status Code: 400

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidGameSessionStatusException

The requested operation would cause a conflict with the current state of a resource associated with the request and/or the game instance. Resolve the conflict before retrying.

HTTP Status Code: 400

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateGameSessionQueue

Updates the configuration of a game session queue, which determines how the queue processes new game session requests. To update settings, specify the queue name to be updated and provide the new settings. When updating destinations, provide a complete list of destinations.

Learn more

Using Multi-Region Queues

Request Syntax

```
{
   "CustomEventData": "string",
   "Destinations": [
      {
         "DestinationArn": "string"
      }
   ],
   "FilterConfiguration": {
      "AllowedLocations": [ "string" ]
   },
   "Name": "string",
   "NotificationTarget": "string",
   "PlayerLatencyPolicies": [
      {
         "MaximumIndividualPlayerLatencyMilliseconds": number,
         "PolicyDurationSeconds": number
      }
   ],
   "PriorityConfiguration": {
      "LocationOrder": [ "string" ],
      "PriorityOrder": [ "string" ]
   },
   "TimeoutInSeconds": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Name

A descriptive label that is associated with game session queue. Queue names must be unique within each Region. You can use either the queue ID or ARN value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-]+|^arn:.*:gamesessionqueue\/[a-zA-Z0-9-]+`

Required: Yes

CustomEventData

Information to be added to all events that are related to this game session queue.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: `[\s\S]*`

Required: No

Destinations

A list of fleets and/or fleet aliases that can be used to fulfill game session placement requests in the queue. Destinations are identified by either a fleet ARN or a fleet alias ARN, and are listed in order of placement preference. When updating this list, provide a complete list of destinations.

Type: Array of GameSessionQueueDestination objects

Required: No

FilterConfiguration

A list of locations where a queue is allowed to place new game sessions. Locations are specified in the form of AWS Region codes, such as `us-west-2`. If this parameter is not set, game

sessions can be placed in any queue location. To remove an existing filter configuration, pass in an empty set.

Type: FilterConfiguration object

Required: No

NotificationTarget

An SNS topic ARN that is set up to receive game session placement notifications. See Setting up notifications for game session placement.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 300.

Pattern: `[a-zA-Z0-9:_-]*(\.fifo)?`

Required: No

PlayerLatencyPolicies

A set of policies that act as a sliding cap on player latency. FleetIQ works to deliver low latency for most players in a game session. These policies ensure that no individual player can be placed into a game with unreasonably high latency. Use multiple policies to gradually relax latency requirements a step at a time. Multiple policies are applied based on their maximum allowed latency, starting with the lowest value. When updating policies, provide a complete collection of policies.

Type: Array of PlayerLatencyPolicy objects

Required: No

PriorityConfiguration

Custom settings to use when prioritizing destinations and locations for game session placements. This configuration replaces the FleetIQ default prioritization process. Priority types that are not explicitly named will be automatically applied at the end of the prioritization process. To remove an existing priority configuration, pass in an empty set.

Type: PriorityConfiguration object

Required: No

TimeoutInSeconds

The maximum time, in seconds, that a new game session placement request remains in the queue. When a request exceeds this time, the game session placement changes to a `TIMED_OUT` status. By default, this property is set to `600`.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

Response Syntax

```
{
   "GameSessionQueue": {
      "CustomEventData": "string",
      "Destinations": [
         {
            "DestinationArn": "string"
         }
      ],
      "FilterConfiguration": {
         "AllowedLocations": [ "string" ]
      },
      "GameSessionQueueArn": "string",
      "Name": "string",
      "NotificationTarget": "string",
      "PlayerLatencyPolicies": [
         {
            "MaximumIndividualPlayerLatencyMilliseconds": number,
            "PolicyDurationSeconds": number
         }
      ],
      "PriorityConfiguration": {
         "LocationOrder": [ "string" ],
         "PriorityOrder": [ "string" ]
      },
      "TimeoutInSeconds": number
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

GameSessionQueue

An object that describes the newly updated game session queue.

Type: GameSessionQueue object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateMatchmakingConfiguration

Updates settings for a FlexMatch matchmaking configuration. These changes affect all matches and game sessions that are created after the update. To update settings, specify the configuration name to be updated and provide the new settings.

Learn more

Design a FlexMatch matchmaker

Request Syntax

```
{
   "AcceptanceRequired": boolean,
   "AcceptanceTimeoutSeconds": number,
   "AdditionalPlayerCount": number,
   "BackfillMode": "string",
   "CustomEventData": "string",
   "Description": "string",
   "FlexMatchMode": "string",
   "GameProperties": [
      {
         "Key": "string",
         "Value": "string"
      }
   ],
   "GameSessionData": "string",
   "GameSessionQueueArns": [ "string" ],
   "Name": "string",
   "NotificationTarget": "string",
   "RequestTimeoutSeconds": number,
   "RuleSetName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

Name

A unique identifier for the matchmaking configuration to update. You can use either the configuration name or ARN value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]*|^arn:.*:matchmakingconfiguration\/[a-zA-Z0-9-\.]*`

Required: Yes

AcceptanceRequired

A flag that indicates whether a match that was created with this configuration must be accepted by the matched players. To require acceptance, set to TRUE. With this option enabled, matchmaking tickets use the status `REQUIRES_ACCEPTANCE` to indicate when a completed potential match is waiting for player acceptance.

Type: Boolean

Required: No

AcceptanceTimeoutSeconds

The length of time (in seconds) to wait for players to accept a proposed match, if acceptance is required.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 600.

Required: No

AdditionalPlayerCount

The number of player slots in a match to keep open for future players. For example, if the configuration's rule set specifies a match for a single 10-person team, and the additional player

count is set to 2, 10 players will be selected for the match and 2 more player slots will be open for future players. This parameter is not used if `FlexMatchMode` is set to `STANDALONE`.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

BackfillMode

The method that is used to backfill game sessions created with this matchmaking configuration. Specify MANUAL when your game manages backfill requests manually or does not use the match backfill feature. Specify AUTOMATIC to have GameLift create a match backfill request whenever a game session has one or more open slots. Learn more about manual and automatic backfill in Backfill Existing Games with FlexMatch. Automatic backfill is not available when `FlexMatchMode` is set to `STANDALONE`.

Type: String

Valid Values: `AUTOMATIC | MANUAL`

Required: No

CustomEventData

Information to add to all events related to the matchmaking configuration.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

Description

A description for the matchmaking configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

FlexMatchMode

Indicates whether this matchmaking configuration is being used with Amazon GameLift hosting or as a standalone matchmaking solution.

- **STANDALONE** - FlexMatch forms matches and returns match information, including players and team assignments, in a MatchmakingSucceeded event.
- **WITH_QUEUE** - FlexMatch forms matches and uses the specified Amazon GameLift queue to start a game session for the match.

Type: String

Valid Values: `STANDALONE | WITH_QUEUE`

Required: No

GameProperties

A set of key-value pairs that can store custom data in a game session. For example: `{"Key": "difficulty", "Value": "novice"}`. This information is added to the new `GameSession` object that is created for a successful match. This parameter is not used if `FlexMatchMode` is set to `STANDALONE`.

Type: Array of GameProperty objects

Array Members: Maximum number of 16 items.

Required: No

GameSessionData

A set of custom game session properties, formatted as a single string value. This data is passed to a game server process with a request to start a new game session (see Start a Game Session). This information is added to the game session that is created for a successful match. This parameter is not used if `FlexMatchMode` is set to `STANDALONE`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 4096.

Required: No

GameSessionQueueArns

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift game session queue resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::gamesessionqueue/<queue name>`. Queues can be located in any Region. Queues are used to start new Amazon GameLift-hosted game sessions for matches that are created with this matchmaking configuration. If `FlexMatchMode` is set to `STANDALONE`, do not set this parameter.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9:/-]+`

Required: No

NotificationTarget

An SNS topic ARN that is set up to receive matchmaking notifications. See Setting up notifications for matchmaking for more information.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 300.

Pattern: `[a-zA-Z0-9:_/-]*(.fifo)?`

Required: No

RequestTimeoutSeconds

The maximum duration, in seconds, that a matchmaking ticket can remain in process before timing out. Requests that fail due to timing out can be resubmitted as needed.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 43200.

Required: No

RuleSetName

A unique identifier for the matchmaking rule set to use with this configuration. You can use either the rule set name or ARN value. A matchmaking configuration can only use rule sets that are defined in the same Region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9-\.]*|^arn:.*:matchmakingruleset\/[a-zA-Z0-9-\.]*`

Required: No

Response Syntax

```
{
   "Configuration": {
      "AcceptanceRequired": boolean,
      "AcceptanceTimeoutSeconds": number,
      "AdditionalPlayerCount": number,
      "BackfillMode": "string",
      "ConfigurationArn": "string",
      "CreationTime": number,
      "CustomEventData": "string",
      "Description": "string",
      "FlexMatchMode": "string",
      "GameProperties": [
         {
            "Key": "string",
            "Value": "string"
         }
      ],
      "GameSessionData": "string",
      "GameSessionQueueArns": [ "string" ],
      "Name": "string",
      "NotificationTarget": "string",
      "RequestTimeoutSeconds": number,
      "RuleSetArn": "string",
      "RuleSetName": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Configuration

The updated matchmaking configuration.

Type: MatchmakingConfiguration object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateRuntimeConfiguration

Updates the current runtime configuration for the specified fleet, which tells Amazon GameLift how to launch server processes on all instances in the fleet. You can update a fleet's runtime configuration at any time after the fleet is created; it does not need to be in `ACTIVE` status.

To update runtime configuration, specify the fleet ID and provide a `RuntimeConfiguration` with an updated set of server process configurations.

If successful, the fleet's runtime configuration settings are updated. Each instance in the fleet regularly checks for and retrieves updated runtime configurations. Instances immediately begin complying with the new configuration by launching new server processes or not replacing existing processes when they shut down. Updating a fleet's runtime configuration never affects existing server processes.

Learn more

Setting up Amazon GameLift fleets

Request Syntax

```
{
   "FleetId": "string",
   "RuntimeConfiguration": {
      "GameSessionActivationTimeoutSeconds": number,
      "MaxConcurrentGameSessionActivations": number,
      "ServerProcesses": [
         {
            "ConcurrentExecutions": number,
            "LaunchPath": "string",
            "Parameters": "string"
         }
      ]
   }
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet to update runtime configuration for. You can use either the fleet ID or ARN value.

Type: String

Pattern: `^fleet-\S+|^arn:.*:fleet\/fleet-\S+`

Required: Yes

RuntimeConfiguration

Instructions for launching server processes on each instance in the fleet. Server processes run either a custom game build executable or a Realtime Servers script. The runtime configuration lists the types of server processes to run on an instance, how to launch them, and the number of processes to run concurrently.

Type: RuntimeConfiguration object

Required: Yes

Response Syntax

```
{
   "RuntimeConfiguration": {
      "GameSessionActivationTimeoutSeconds": number,
      "MaxConcurrentGameSessionActivations": number,
      "ServerProcesses": [
         {
            "ConcurrentExecutions": number,
            "LaunchPath": "string",
            "Parameters": "string"
         }
      ]
   }
```

```
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

RuntimeConfiguration

The runtime configuration currently in use by all instances in the fleet. If the update was successful, all property changes are shown.

Type: RuntimeConfiguration object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidFleetStatusException

The requested operation would cause a conflict with the current state of a resource associated with the request and/or the fleet. Resolve the conflict before retrying.

HTTP Status Code: 400

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

UpdateScript

Updates Realtime script metadata and content.

To update script metadata, specify the script ID and provide updated name and/or version values.

To update script content, provide an updated zip file by pointing to either a local file or an Amazon S3 bucket location. You can use either method regardless of how the original script was uploaded. Use the *Version* parameter to track updates to the script.

If the call is successful, the updated metadata is stored in the script record and a revised script is uploaded to the Amazon GameLift service. Once the script is updated and acquired by a fleet instance, the new version is used for all new game sessions.

Learn more

Amazon GameLift Realtime Servers

Related actions

All APIs by task

Request Syntax

```
{
   "Name": "string",
   "ScriptId": "string",
   "StorageLocation": {
      "Bucket": "string",
      "Key": "string",
      "ObjectVersion": "string",
      "RoleArn": "string"
   },
   "Version": "string",
   "ZipFile": blob
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

ScriptId

A unique identifier for the Realtime script to update. You can use either the script ID or ARN value.

Type: String

Pattern: `^script-\S+|^arn:.*:script\/script-\S+`

Required: Yes

Name

A descriptive label that is associated with a script. Script names don't need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

StorageLocation

The location of the Amazon S3 bucket where a zipped file containing your Realtime scripts is stored. The storage location must specify the Amazon S3 bucket name, the zip file name (the "key"), and a role ARN that allows Amazon GameLift to access the Amazon S3 storage location. The S3 bucket must be in the same Region where you want to create a new script. By default, Amazon GameLift uploads the latest version of the zip file; if you have S3 object versioning turned on, you can use the `ObjectVersion` parameter to specify an earlier version.

Type: S3Location object

Required: No

Version

Version information associated with a build or script. Version strings don't need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

ZipFile

A data object containing your Realtime scripts and dependencies as a zip file. The zip file can have one or multiple files. Maximum size of a zip file is 5 MB.

When using the AWS CLI tool to create a script, this parameter is set to the zip file name. It must be prepended with the string "fileb://" to indicate that the file data is a binary object. For example: `--zip-file fileb://myRealtimeScript.zip`.

Type: Base64-encoded binary data object

Length Constraints: Maximum length of 5000000.

Required: No

Response Syntax

```
{
   "Script": {
      "CreationTime": number,
      "Name": "string",
      "ScriptArn": "string",
      "ScriptId": "string",
      "SizeOnDisk": number,
      "StorageLocation": {
         "Bucket": "string",
         "Key": "string",
         "ObjectVersion": "string",
         "RoleArn": "string"
      },
      "Version": "string"
   }
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Script

The newly created script record with a unique script ID. The new script's storage location reflects an Amazon S3 location: (1) If the script was uploaded from an S3 bucket under your account, the storage location reflects the information that was provided in the *CreateScript* request; (2) If the script file was uploaded from a local zip file, the storage location reflects an S3 location controls by the Amazon GameLift service.

Type: Script object

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

NotFoundException

The requested resources was not found. The resource was either not created yet or deleted.

HTTP Status Code: 400

UnauthorizedException

The client failed authentication. Clients should not retry such requests.

HTTP Status Code: 400

Examples

Update a script from a local zip file

This example updates the Realtime script with a zip file that is stored locally.

Sample Request

```
{
    "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
    "Version": "1.0.2",
    "ZipFile": <zip file data>
}

CLI syntax:

aws gamelift update-script
 --script-id "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
 --script-version "1.0.2"
 --zip-file fileb://myrealtime_script.zip
```

Sample Response

```
{
    "Script": {
        "CreationTime": 1496708916.18,
        "Name": "My_Realtime_Script_1",
        "ScriptArn": "arn:aws:gamelift:us-west-2::script/
script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "SizeOnDisk": 10000,
        "StorageLocation": {
            "Bucket": "prod-gamescale-scripts-us-west-2",
             "Key": "123456789012/script-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
        },
        "Version": "1.0.2"
    }
}
```

Update a script with a file in Amazon S3

This example updates the Realtime server script with a zip file that is stored in an S3 account.

Sample Request

```
{
    "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
    "Version": "1.0.2",
    "StorageLocation": {
        "Bucket": "my_realtime_script_files",
        "Key": "myRealtimeScript.zip",
        "RoleArn": "arn:aws:iam::111122223333:role/GameLiftAccess"
    }
}

CLI syntax:

aws gamelift create-script
 --script-id "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
 --script-version "1.0.2"
 --storage-location
  "Bucket=my_realtime_script_files,
  Key=myRealtimeScript.zip,
  RoleArn=arn:aws:iam::123456789012:role/GameLiftAccess"
```

Sample Response

```
{
    "Script": {
        "CreationTime": 1496708916.18,
        "Name": "My_Realtime_Script_1",
        "ScriptArn": "arn:aws:gamelift:us-west-2::script/
script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "SizeOnDisk": 0,
        "StorageLocation": {
            "Bucket": "my_realtime_script_files",
             "Key": "myRealtimeScript.zip"
            "RoleArn": "arn:aws:iam::111122223333:role/GameLiftAccess"
            "ObjectVersion": null
        },
        "Version": "1.0.2"
    }
}
```

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

ValidateMatchmakingRuleSet

Validates the syntax of a matchmaking rule or rule set. This operation checks that the rule set is using syntactically correct JSON and that it conforms to allowed property expressions. To validate syntax, provide a rule set JSON string.

Learn more

- Build a rule set

Request Syntax

```
{
   "RuleSetBody": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters.

The request accepts the following data in JSON format.

> **Note**
>
> In the following list, the required parameters are described first.

RuleSetBody

A collection of matchmaking rules to validate, formatted as a JSON string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65535.

Required: Yes

Response Syntax

```
{
```

```
    "Valid": boolean
}
```

Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

Valid

A response indicating whether the rule set is valid.

Type: Boolean

Errors

For information about the errors that are common to all actions, see Common Errors.

InternalServiceException

The service encountered an unrecoverable internal failure while processing the request. Clients can retry such requests immediately or after a waiting period.

HTTP Status Code: 500

InvalidRequestException

One or more parameter values in the request are invalid. Correct the invalid parameter values before retrying.

HTTP Status Code: 400

UnsupportedRegionException

The requested operation is not supported in the Region specified.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS Command Line Interface
- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3

Data Types

The Amazon GameLift API contains several data types that various actions use. This section describes each data type in detail.

> **Note**
>
> The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- Alias
- AnywhereConfiguration
- AttributeValue
- AwsCredentials
- Build
- CertificateConfiguration
- ClaimFilterOption
- Compute
- DesiredPlayerSession
- EC2InstanceCounts
- EC2InstanceLimit
- Event
- FilterConfiguration
- FleetAttributes
- FleetCapacity
- FleetUtilization
- GameProperty
- GameServer
- GameServerGroup
- GameServerGroupAutoScalingPolicy

- GameServerInstance
- GameSession
- GameSessionConnectionInfo
- GameSessionDetail
- GameSessionPlacement
- GameSessionQueue
- GameSessionQueueDestination
- Instance
- InstanceAccess
- InstanceCredentials
- InstanceDefinition
- IpPermission
- LaunchTemplateSpecification
- LocationAttributes
- LocationConfiguration
- LocationModel
- LocationState
- MatchedPlayerSession
- MatchmakingConfiguration
- MatchmakingRuleSet
- MatchmakingTicket
- PlacedPlayerSession
- Player
- PlayerLatency
- PlayerLatencyPolicy
- PlayerSession
- PriorityConfiguration
- ResourceCreationLimitPolicy
- RoutingStrategy
- RuntimeConfiguration

- S3Location
- ScalingPolicy
- Script
- ServerProcess
- Tag
- TargetConfiguration
- TargetTrackingConfiguration
- VpcPeeringAuthorization
- VpcPeeringConnection
- VpcPeeringConnectionStatus

Alias

Properties that describe an alias resource.

Related actions

All APIs by task

Contents

> **Note**
>
> In the following list, the required parameters are described first.

AliasArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift alias resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::alias/alias-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`. In a GameLift alias ARN, the resource ID matches the alias ID value.

Type: String

Pattern: `^arn:.*:alias\/alias-\S+`

Required: No

AliasId

A unique identifier for the alias. Alias IDs are unique within a Region.

Type: String

Pattern: `^alias-\S+`

Required: No

CreationTime

A time stamp indicating when this data object was created. Format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

Description

A human-readable description of an alias.

Type: String

Required: No

LastUpdatedTime

The time that this data object was last modified. Format is a number expressed in Unix time as milliseconds (for example "1469498468.057").

Type: Timestamp

Required: No

Name

A descriptive label that is associated with an alias. Alias names do not need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: .*\S.*

Required: No

RoutingStrategy

The routing configuration, including routing type and fleet target, for the alias.

Type: RoutingStrategy object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AnywhereConfiguration

Amazon GameLift Anywhere configuration options for your Anywhere fleets.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

Cost

The cost to run your fleet per hour. Amazon GameLift uses the provided cost of your fleet to balance usage in queues. For more information about queues, see Setting up queues in the *Amazon GameLift Developer Guide*.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 11.

Pattern: `^\d{1,5}(?:\.\d{1,5})?$`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AttributeValue

Values for use in player attribute key-value pairs. This object lets you specify an attribute value using any of the valid data types: string, number, string array, or data map. Each `AttributeValue` object can use only one of the available properties.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

N

For number values, expressed as double.

Type: Double

Required: No

S

For single string values. Maximum string length is 100 characters.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 100.

Required: No

SDM

For a map of up to 10 data type:value pairs. Maximum length for each string value is 100 characters.

Type: String to double map

Key Length Constraints: Minimum length of 1. Maximum length of 100.

Required: No

SL

For a list of up to 100 strings. Maximum length for each string is 100 characters. Duplicate values are not recognized; all occurrences of the repeated value after the first of a repeated value are ignored.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 100.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

AwsCredentials

AWS account security credentials that allow interactions with Amazon GameLift resources. The credentials are temporary and valid for a limited time span. You can request fresh credentials at any time.

AWS security credentials consist of three parts: an access key ID, a secret access key, and a session token. You must use all three parts together to authenticate your access requests.

You need AWS credentials for the following tasks:

- To upload a game server build directly to Amazon GameLift S3 storage using `CreateBuild`. To get access for this task, call RequestUploadCredentials.
- To remotely connect to an active Amazon GameLift fleet instances. To get remote access, call GetComputeAccess.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

AccessKeyId

The access key ID that identifies the temporary security credentials.

Type: String

Length Constraints: Minimum length of 1.

Required: No

SecretAccessKey

The secret access key that can be used to sign requests.

Type: String

Length Constraints: Minimum length of 1.

Required: No

SessionToken

The token that users must pass to the service API to use the temporary credentials.

Type: String

Length Constraints: Minimum length of 1.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Build

Properties describing a custom game build.

All APIs by task

Contents

> **Note**
>
> In the following list, the required parameters are described first.

BuildArn

The Amazon Resource Name (ARN) assigned to a Amazon GameLift build resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::build/build-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`. In a GameLift build ARN, the resource ID matches the *BuildId* value.

Type: String

Pattern: `^arn:.*:build\/build-\S+`

Required: No

BuildId

A unique identifier for the build.

Type: String

Pattern: `^build-\S+`

Required: No

CreationTime

A time stamp indicating when this data object was created. Format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

Name

A descriptive label associated with a build. Build names don't need to be unique. It can be set using CreateBuild or UpdateBuild.

Type: String

Required: No

OperatingSystem

Operating system that the game server binaries are built to run on. This value determines the type of fleet resources that you can use for this build.

Type: String

Valid Values: `WINDOWS_2012 | AMAZON_LINUX | AMAZON_LINUX_2 | WINDOWS_2016 | AMAZON_LINUX_2023`

Required: No

ServerSdkVersion

The Amazon GameLift Server SDK version used to develop your game server.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `^\d+\.\d+\.\d+$`

Required: No

SizeOnDisk

File size of the uploaded game build, expressed in bytes. When the build status is `INITIALIZED` or when using a custom Amazon S3 storage location, this value is 0.

Type: Long

Valid Range: Minimum value of 1.

Required: No

Status

Current status of the build.

Possible build statuses include the following:

- **INITIALIZED** -- A new build has been defined, but no files have been uploaded. You cannot create fleets for builds that are in this status. When a build is successfully created, the build status is set to this value.
- **READY** -- The game build has been successfully uploaded. You can now create new fleets for this build.
- **FAILED** -- The game build upload failed. You cannot create new fleets for this build.

Type: String

Valid Values: `INITIALIZED | READY | FAILED`

Required: No

Version

Version information associated with a build or script. Version strings don't need to be unique.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

CertificateConfiguration

Determines whether a TLS/SSL certificate is generated for a fleet. This feature must be enabled when creating the fleet. All instances in a fleet share the same certificate. The certificate can be retrieved by calling the Amazon GameLift Server SDK operation `GetInstanceCertificate`.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

CertificateType

Indicates whether a TLS/SSL certificate is generated for a fleet.

Valid values include:

- **GENERATED** - Generate a TLS/SSL certificate for this fleet.
- **DISABLED** - (default) Do not generate a TLS/SSL certificate for this fleet.

Type: String

Valid Values: `DISABLED | GENERATED`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ClaimFilterOption

This data type is used with the Amazon GameLift FleetIQ and game server groups.

Filters which game servers may be claimed when calling `ClaimGameServer`.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

InstanceStatuses

List of instance statuses that game servers may be claimed on. If provided, the list must contain the `ACTIVE` status.

Type: Array of strings

Valid Values: `ACTIVE | DRAINING`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Compute

An Amazon GameLift compute resource for hosting your game servers. A compute can be an EC2instance in a managed EC2 fleet or a registered compute in an Anywhere fleet.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

ComputeArn

The ARN that is assigned to a compute resource and uniquely identifies it. ARNs are unique across locations. Instances in managed EC2 fleets are not assigned a ComputeARN.

Type: String

Length Constraints: Maximum length of 1024.

Pattern: `^arn:.*:compute\/[a-zA-Z0-9\-]+`

Required: No

ComputeName

A descriptive label for the compute resource. For instances in a managed EC2 fleet, the compute name is an instance ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[a-zA-Z0-9\-]+`

Required: No

ComputeStatus

Current status of the compute. A compute must have an `ACTIVE` status to host game sessions.

Type: String

Valid Values: `PENDING | ACTIVE | TERMINATING`

Required: No

CreationTime

A time stamp indicating when this data object was created. Format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

DnsName

The DNS name of a compute resource. Amazon GameLift requires a DNS name or IP address for a compute.

Type: String

Required: No

FleetArn

The Amazon Resource Name (ARN) of the fleet that the compute belongs to.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

Required: No

FleetId

A unique identifier for the fleet that the compute belongs to.

Type: String

Pattern: `^fleet-\S+`

Required: No

GameLiftServiceSdkEndpoint

The Amazon GameLift SDK endpoint connection for a registered compute resource in an Anywhere fleet. The game servers on the compute use this endpoint to connect to the Amazon GameLift service.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: No

IpAddress

The IP address of a compute resource. Amazon GameLift requires a DNS name or IP address for a compute.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[0-9A-Fa-f\:\.]+`

Required: No

Location

The name of the custom location you added to the fleet that this compute resource resides in.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

OperatingSystem

The type of operating system on the compute resource.

Type: String

Valid Values: `WINDOWS_2012 | AMAZON_LINUX | AMAZON_LINUX_2 | WINDOWS_2016 | AMAZON_LINUX_2023`

Required: No

Type

The Amazon EC2 instance type that the fleet uses. For registered computes in an Amazon GameLift Anywhere fleet, this property is empty.

Type: String

Valid Values: t2.micro | t2.small | t2.medium | t2.large | c3.large | c3.xlarge | c3.2xlarge | c3.4xlarge | c3.8xlarge | c4.large | c4.xlarge | c4.2xlarge | c4.4xlarge | c4.8xlarge | c5.large | c5.xlarge | c5.2xlarge | c5.4xlarge | c5.9xlarge | c5.12xlarge | c5.18xlarge | c5.24xlarge | c5a.large | c5a.xlarge | c5a.2xlarge | c5a.4xlarge | c5a.8xlarge | c5a.12xlarge | c5a.16xlarge | c5a.24xlarge | r3.large | r3.xlarge | r3.2xlarge | r3.4xlarge | r3.8xlarge | r4.large | r4.xlarge | r4.2xlarge | r4.4xlarge | r4.8xlarge | r4.16xlarge | r5.large | r5.xlarge | r5.2xlarge | r5.4xlarge | r5.8xlarge | r5.12xlarge | r5.16xlarge | r5.24xlarge | r5a.large | r5a.xlarge | r5a.2xlarge | r5a.4xlarge | r5a.8xlarge | r5a.12xlarge | r5a.16xlarge | r5a.24xlarge | m3.medium | m3.large | m3.xlarge | m3.2xlarge | m4.large | m4.xlarge | m4.2xlarge | m4.4xlarge | m4.10xlarge | m5.large | m5.xlarge | m5.2xlarge | m5.4xlarge | m5.8xlarge | m5.12xlarge | m5.16xlarge | m5.24xlarge | m5a.large | m5a.xlarge | m5a.2xlarge | m5a.4xlarge | m5a.8xlarge | m5a.12xlarge | m5a.16xlarge | m5a.24xlarge | c5d.large | c5d.xlarge | c5d.2xlarge | c5d.4xlarge | c5d.9xlarge | c5d.12xlarge | c5d.18xlarge | c5d.24xlarge | c6a.large | c6a.xlarge | c6a.2xlarge | c6a.4xlarge | c6a.8xlarge | c6a.12xlarge | c6a.16xlarge | c6a.24xlarge | c6i.large | c6i.xlarge | c6i.2xlarge | c6i.4xlarge | c6i.8xlarge | c6i.12xlarge | c6i.16xlarge | c6i.24xlarge | r5d.large | r5d.xlarge | r5d.2xlarge | r5d.4xlarge | r5d.8xlarge | r5d.12xlarge | r5d.16xlarge | r5d.24xlarge | m6g.medium | m6g.large | m6g.xlarge | m6g.2xlarge | m6g.4xlarge | m6g.8xlarge | m6g.12xlarge | m6g.16xlarge | c6g.medium | c6g.large | c6g.xlarge | c6g.2xlarge | c6g.4xlarge | c6g.8xlarge | c6g.12xlarge | c6g.16xlarge | r6g.medium | r6g.large | r6g.xlarge | r6g.2xlarge | r6g.4xlarge | r6g.8xlarge | r6g.12xlarge | r6g.16xlarge | c6gn.medium | c6gn.large | c6gn.xlarge | c6gn.2xlarge | c6gn.4xlarge | c6gn.8xlarge | c6gn.12xlarge | c6gn.16xlarge | c7g.medium | c7g.large | c7g.xlarge | c7g.2xlarge | c7g.4xlarge | c7g.8xlarge | c7g.12xlarge | c7g.16xlarge | r7g.medium | r7g.large | r7g.xlarge | r7g.2xlarge | r7g.4xlarge | r7g.8xlarge | r7g.12xlarge | r7g.16xlarge | m7g.medium | m7g.large | m7g.xlarge | m7g.2xlarge | m7g.4xlarge | m7g.8xlarge | m7g.12xlarge | m7g.16xlarge | g5g.xlarge | g5g.2xlarge | g5g.4xlarge | g5g.8xlarge | g5g.16xlarge

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

DesiredPlayerSession

Player information for use when creating player sessions using a game session placement request.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

PlayerData

Developer-defined information related to a player. Amazon GameLift does not use this data, so it can be formatted as needed for use in the game.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

PlayerId

A unique identifier for a player to associate with the player session.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2

- AWS SDK for Ruby V3

EC2InstanceCounts

Resource capacity settings. Fleet capacity is measured in Amazon EC2 instances. Pending and terminating counts are non-zero when the fleet capacity is adjusting to a scaling event or if access to resources is temporarily affected.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

ACTIVE

Actual number of instances that are ready to host game sessions.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

DESIRED

Requested number of active instances. Amazon GameLift takes action as needed to maintain the desired number of instances. Capacity is scaled up or down by changing the desired instances. A change in the desired instances value can take up to 1 minute to be reflected when viewing a fleet's capacity settings.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

IDLE

Number of active instances that are not currently hosting a game session.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

MAXIMUM

The maximum instance count value allowed.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

MINIMUM

The minimum instance count value allowed.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

PENDING

Number of instances that are starting but not yet active.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

TERMINATING

Number of instances that are no longer active but haven't yet been terminated.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

EC2InstanceLimit

The Amazon GameLift service limits for an Amazon EC2 instance type and current utilization. Amazon GameLift allows AWS accounts a maximum number of instances, per instance type, per AWS Region or location, for use with Amazon GameLift. You can request an limit increase for your account by using the **Service limits** page in the Amazon GameLift console.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

CurrentInstances

The number of instances for the specified type and location that are currently being used by the AWS account.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

EC2InstanceType

The name of an Amazon EC2 instance type. See Amazon Elastic Compute Cloud Instance Types for detailed descriptions.

Type: String

Valid Values: `t2.micro | t2.small | t2.medium | t2.large | c3.large | c3.xlarge | c3.2xlarge | c3.4xlarge | c3.8xlarge | c4.large | c4.xlarge | c4.2xlarge | c4.4xlarge | c4.8xlarge | c5.large | c5.xlarge | c5.2xlarge | c5.4xlarge | c5.9xlarge | c5.12xlarge | c5.18xlarge | c5.24xlarge | c5a.large | c5a.xlarge | c5a.2xlarge | c5a.4xlarge | c5a.8xlarge | c5a.12xlarge | c5a.16xlarge | c5a.24xlarge | r3.large | r3.xlarge | r3.2xlarge | r3.4xlarge | r3.8xlarge | r4.large | r4.xlarge | r4.2xlarge | r4.4xlarge | r4.8xlarge | r4.16xlarge | r5.large |`

r5.xlarge | r5.2xlarge | r5.4xlarge | r5.8xlarge | r5.12xlarge | r5.16xlarge | r5.24xlarge | r5a.large | r5a.xlarge | r5a.2xlarge | r5a.4xlarge | r5a.8xlarge | r5a.12xlarge | r5a.16xlarge | r5a.24xlarge | m3.medium | m3.large | m3.xlarge | m3.2xlarge | m4.large | m4.xlarge | m4.2xlarge | m4.4xlarge | m4.10xlarge | m5.large | m5.xlarge | m5.2xlarge | m5.4xlarge | m5.8xlarge | m5.12xlarge | m5.16xlarge | m5.24xlarge | m5a.large | m5a.xlarge | m5a.2xlarge | m5a.4xlarge | m5a.8xlarge | m5a.12xlarge | m5a.16xlarge | m5a.24xlarge | c5d.large | c5d.xlarge | c5d.2xlarge | c5d.4xlarge | c5d.9xlarge | c5d.12xlarge | c5d.18xlarge | c5d.24xlarge | c6a.large | c6a.xlarge | c6a.2xlarge | c6a.4xlarge | c6a.8xlarge | c6a.12xlarge | c6a.16xlarge | c6a.24xlarge | c6i.large | c6i.xlarge | c6i.2xlarge | c6i.4xlarge | c6i.8xlarge | c6i.12xlarge | c6i.16xlarge | c6i.24xlarge | r5d.large | r5d.xlarge | r5d.2xlarge | r5d.4xlarge | r5d.8xlarge | r5d.12xlarge | r5d.16xlarge | r5d.24xlarge | m6g.medium | m6g.large | m6g.xlarge | m6g.2xlarge | m6g.4xlarge | m6g.8xlarge | m6g.12xlarge | m6g.16xlarge | c6g.medium | c6g.large | c6g.xlarge | c6g.2xlarge | c6g.4xlarge | c6g.8xlarge | c6g.12xlarge | c6g.16xlarge | r6g.medium | r6g.large | r6g.xlarge | r6g.2xlarge | r6g.4xlarge | r6g.8xlarge | r6g.12xlarge | r6g.16xlarge | c6gn.medium | c6gn.large | c6gn.xlarge | c6gn.2xlarge | c6gn.4xlarge | c6gn.8xlarge | c6gn.12xlarge | c6gn.16xlarge | c7g.medium | c7g.large | c7g.xlarge | c7g.2xlarge | c7g.4xlarge | c7g.8xlarge | c7g.12xlarge | c7g.16xlarge | r7g.medium | r7g.large | r7g.xlarge | r7g.2xlarge | r7g.4xlarge | r7g.8xlarge | r7g.12xlarge | r7g.16xlarge | m7g.medium | m7g.large | m7g.xlarge | m7g.2xlarge | m7g.4xlarge | m7g.8xlarge | m7g.12xlarge | m7g.16xlarge | g5g.xlarge | g5g.2xlarge | g5g.4xlarge | g5g.8xlarge | g5g.16xlarge

Required: No

InstanceLimit

The number of instances that is allowed for the specified instance type and location.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

Location

An AWS Region code, such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Event

Log entry describing an event that involves Amazon GameLift resources (such as a fleet). In addition to tracking activity, event codes and messages can provide additional information for troubleshooting and debugging problems.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

EventCode

The type of event being logged.

Fleet state transition events:

- FLEET_CREATED -- A fleet resource was successfully created with a status of `NEW`. Event messaging includes the fleet ID.
- FLEET_STATE_DOWNLOADING -- Fleet status changed from `NEW` to `DOWNLOADING`. The compressed build has started downloading to a fleet instance for installation.
- FLEET_STATE_VALIDATING -- Fleet status changed from `DOWNLOADING` to `VALIDATING`. Amazon GameLift has successfully downloaded the build and is now validating the build files.
- FLEET_STATE_BUILDING -- Fleet status changed from `VALIDATING` to `BUILDING`. Amazon GameLift has successfully verified the build files and is now running the installation scripts.
- FLEET_STATE_ACTIVATING -- Fleet status changed from `BUILDING` to `ACTIVATING`. Amazon GameLift is trying to launch an instance and test the connectivity between the build and the Amazon GameLift Service via the Server SDK.
- FLEET_STATE_ACTIVE -- The fleet's status changed from `ACTIVATING` to `ACTIVE`. The fleet is now ready to host game sessions.
- FLEET_STATE_ERROR -- The Fleet's status changed to `ERROR`. Describe the fleet event message for more details.

Fleet creation events (ordered by fleet creation activity):

- FLEET_BINARY_DOWNLOAD_FAILED -- The build failed to download to the fleet instance.

- FLEET_CREATION_EXTRACTING_BUILD -- The game server build was successfully downloaded to an instance, and the build files are now being extracted from the uploaded build and saved to an instance. Failure at this stage prevents a fleet from moving to ACTIVE status. Logs for this stage display a list of the files that are extracted and saved on the instance. Access the logs by using the URL in *PreSignedLogUrl*.
- FLEET_CREATION_RUNNING_INSTALLER -- The game server build files were successfully extracted, and the GameLift is now running the build's install script (if one is included). Failure in this stage prevents a fleet from moving to ACTIVE status. Logs for this stage list the installation steps and whether or not the install completed successfully. Access the logs by using the URL in *PreSignedLogUrl*.
- FLEET_CREATION_VALIDATING_RUNTIME_CONFIG -- The build process was successful, and the GameLift is now verifying that the game server launch paths, which are specified in the fleet's runtime configuration, exist. If any listed launch path exists, Amazon GameLift tries to launch a game server process and waits for the process to report ready. Failures in this stage prevent a fleet from moving to `ACTIVE` status. Logs for this stage list the launch paths in the runtime configuration and indicate whether each is found. Access the logs by using the URL in *PreSignedLogUrl*.
- FLEET_VALIDATION_LAUNCH_PATH_NOT_FOUND -- Validation of the runtime configuration failed because the executable specified in a launch path does not exist on the instance.
- FLEET_VALIDATION_EXECUTABLE_RUNTIME_FAILURE -- Validation of the runtime configuration failed because the executable specified in a launch path failed to run on the fleet instance.
- FLEET_VALIDATION_TIMED_OUT -- Validation of the fleet at the end of creation timed out. Try fleet creation again.
- FLEET_ACTIVATION_FAILED -- The fleet failed to successfully complete one of the steps in the fleet activation process. This event code indicates that the game build was successfully downloaded to a fleet instance, built, and validated, but was not able to start a server process. For more information, see Debug Fleet Creation Issues.
- FLEET_ACTIVATION_FAILED_NO_INSTANCES -- Fleet creation was not able to obtain any instances based on the input fleet attributes. Try again at a different time or choose a different combination of fleet attributes such as fleet type, instance type, etc.
- FLEET_INITIALIZATION_FAILED -- A generic exception occurred during fleet creation. Describe the fleet event message for more details.

VPC peering events:

- FLEET_VPC_PEERING_SUCCEEDED -- A VPC peering connection has been established between the VPC for an Amazon GameLift fleet and a VPC in your AWS account.
- FLEET_VPC_PEERING_FAILED -- A requested VPC peering connection has failed. Event details and status information provide additional detail. A common reason for peering failure is that the two VPCs have overlapping CIDR blocks of IPv4 addresses. To resolve this, change the CIDR block for the VPC in your AWS account. For more information on VPC peering failures, see https://docs.aws.amazon.com/AmazonVPC/latest/PeeringGuide/invalid-peering-configurations.html
- FLEET_VPC_PEERING_DELETED -- A VPC peering connection has been successfully deleted.

Spot instance events:

- INSTANCE_INTERRUPTED -- A spot instance was interrupted by EC2 with a two-minute notification.
- INSTANCE_RECYCLED -- A spot instance was determined to have a high risk of interruption and is scheduled to be recycled once it has no active game sessions.

Server process events:

- SERVER_PROCESS_INVALID_PATH -- The game server executable or script could not be found based on the Fleet runtime configuration. Check that the launch path is correct based on the operating system of the Fleet.
- SERVER_PROCESS_SDK_INITIALIZATION_TIMEOUT -- The server process did not call `InitSDK()` within the time expected (5 minutes). Check your game session log to see why `InitSDK()` was not called in time.
- SERVER_PROCESS_PROCESS_READY_TIMEOUT -- The server process did not call `ProcessReady()` within the time expected (5 minutes) after calling `InitSDK()`. Check your game session log to see why `ProcessReady()` was not called in time.
- SERVER_PROCESS_CRASHED -- The server process exited without calling `ProcessEnding()`. Check your game session log to see why `ProcessEnding()` was not called.
- SERVER_PROCESS_TERMINATED_UNHEALTHY -- The server process did not report a valid health check for too long and was therefore terminated by GameLift. Check your game session log to see if the thread became stuck processing a synchronous task for too long.
- SERVER_PROCESS_FORCE_TERMINATED -- The server process did not exit cleanly within the time expected after `OnProcessTerminate()` was sent. Check your game session log to see why termination took longer than expected.

- SERVER_PROCESS_PROCESS_EXIT_TIMEOUT -- The server process did not exit cleanly within the time expected (30 seconds) after calling `ProcessEnding()`. Check your game session log to see why termination took longer than expected.

Game session events:

- GAME_SESSION_ACTIVATION_TIMEOUT -- GameSession failed to activate within the expected time. Check your game session log to see why `ActivateGameSession()` took longer to complete than expected.

Other fleet events:

- FLEET_SCALING_EVENT -- A change was made to the fleet's capacity settings (desired instances, minimum/maximum scaling limits). Event messaging includes the new capacity settings.
- FLEET_NEW_GAME_SESSION_PROTECTION_POLICY_UPDATED -- A change was made to the fleet's game session protection policy setting. Event messaging includes both the old and new policy setting.
- FLEET_DELETED -- A request to delete a fleet was initiated.
- GENERIC_EVENT -- An unspecified event has occurred.

Type: String

Valid Values: `GENERIC_EVENT | FLEET_CREATED | FLEET_DELETED | FLEET_SCALING_EVENT | FLEET_STATE_DOWNLOADING | FLEET_STATE_VALIDATING | FLEET_STATE_BUILDING | FLEET_STATE_ACTIVATING | FLEET_STATE_ACTIVE | FLEET_STATE_ERROR | FLEET_INITIALIZATION_FAILED | FLEET_BINARY_DOWNLOAD_FAILED | FLEET_VALIDATION_LAUNCH_PATH_NOT_FOUND | FLEET_VALIDATION_EXECUTABLE_RUNTIME_FAILURE | FLEET_VALIDATION_TIMED_OUT | FLEET_ACTIVATION_FAILED | FLEET_ACTIVATION_FAILED_NO_INSTANCES | FLEET_NEW_GAME_SESSION_PROTECTION_POLICY_UPDATED | SERVER_PROCESS_INVALID_PATH | SERVER_PROCESS_SDK_INITIALIZATION_TIMEOUT | SERVER_PROCESS_PROCESS_READY_TIMEOUT | SERVER_PROCESS_CRASHED | SERVER_PROCESS_TERMINATED_UNHEALTHY | SERVER_PROCESS_FORCE_TERMINATED | SERVER_PROCESS_PROCESS_EXIT_TIMEOUT | GAME_SESSION_ACTIVATION_TIMEOUT | FLEET_CREATION_EXTRACTING_BUILD | FLEET_CREATION_RUNNING_INSTALLER | FLEET_CREATION_VALIDATING_RUNTIME_CONFIG | FLEET_VPC_PEERING_SUCCEEDED | FLEET_VPC_PEERING_FAILED | FLEET_VPC_PEERING_DELETED | INSTANCE_INTERRUPTED | INSTANCE_RECYCLED`

Required: No

EventId

A unique identifier for a fleet event.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

EventTime

Time stamp indicating when this event occurred. Format is a number expressed in Unix time as milliseconds (for example "1469498468.057").

Type: Timestamp

Required: No

Message

Additional information related to the event.

Type: String

Length Constraints: Minimum length of 1.

Required: No

PreSignedLogUrl

Location of stored logs with additional detail that is related to the event. This is useful for debugging issues. The URL is valid for 15 minutes. You can also access fleet creation logs through the Amazon GameLift console.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

ResourceId

A unique identifier for an event resource, such as a fleet ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

FilterConfiguration

A list of fleet locations where a game session queue can place new game sessions. You can use a filter to temporarily turn off placements for specific locations. For queues that have multi-location fleets, you can use a filter configuration allow placement with some, but not all of these locations.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

AllowedLocations

A list of locations to allow game session placement in, in the form of AWS Region codes such as `us-west-2`.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

FleetAttributes

Describes a Amazon GameLift fleet of game hosting resources.

Related actions

Contents

> **Note**
>
> In the following list, the required parameters are described first.

AnywhereConfiguration

Amazon GameLift Anywhere configuration options for your Anywhere fleets.

Type: AnywhereConfiguration object

Required: No

BuildArn

The Amazon Resource Name (ARN) associated with the Amazon GameLift build resource that is deployed on instances in this fleet. In a GameLift build ARN, the resource ID matches the `BuildId` value.

Type: String

Pattern: `^arn:.*:build\/build-\S+`

Required: No

BuildId

A unique identifier for the build resource that is deployed on instances in this fleet.

Type: String

Pattern: `^build-\S+`

Required: No

CertificateConfiguration

Determines whether a TLS/SSL certificate is generated for a fleet. This feature must be enabled when creating the fleet. All instances in a fleet share the same certificate. The certificate can be retrieved by calling the Amazon GameLift Server SDK operation `GetInstanceCertificate`.

Type: CertificateConfiguration object

Required: No

ComputeType

The type of compute resource used to host your game servers. You can use your own compute resources with Amazon GameLift Anywhere or use Amazon EC2 instances with managed Amazon GameLift.

Type: String

Valid Values: `EC2 | ANYWHERE`

Required: No

CreationTime

A time stamp indicating when this data object was created. Format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

Description

A human-readable description of the fleet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is

`arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`. In a GameLift fleet ARN, the resource ID matches the `FleetId` value.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

Required: No

FleetId

A unique identifier for the fleet.

Type: String

Pattern: `^fleet-\S+`

Required: No

FleetType

Indicates whether to use On-Demand or Spot instances for this fleet. By default, this property is set to `ON_DEMAND`. Learn more about when to use On-Demand versus Spot Instances. This fleet property can't be changed after the fleet is created.

Type: String

Valid Values: `ON_DEMAND | SPOT`

Required: No

InstanceRoleArn

A unique identifier for an IAM role with access permissions to other AWS services. Any application that runs on an instance in the fleet--including install scripts, server processes, and other processes--can use these permissions to interact with AWS resources that you own or have access to. For more information about using the role with your game server builds, see Communicate with other AWS resources from your fleets.

Type: String

Length Constraints: Minimum length of 1.

Required: No

InstanceRoleCredentialsProvider

Indicates that fleet instances maintain a shared credentials file for the IAM role defined in `InstanceRoleArn`. Shared credentials allow applications that are deployed with the game server executable to communicate with other AWS resources. This property is used only when the game server is integrated with the server SDK version 5.x. For more information about using shared credentials, see Communicate with other AWS resources from your fleets.

Type: String

Valid Values: `SHARED_CREDENTIAL_FILE`

Required: No

InstanceType

The Amazon EC2 instance type that determines the computing resources of each instance in the fleet. Instance type defines the CPU, memory, storage, and networking capacity. See Amazon Elastic Compute Cloud Instance Types for detailed descriptions.

Type: String

Valid Values: `t2.micro | t2.small | t2.medium | t2.large | c3.large | c3.xlarge | c3.2xlarge | c3.4xlarge | c3.8xlarge | c4.large | c4.xlarge | c4.2xlarge | c4.4xlarge | c4.8xlarge | c5.large | c5.xlarge | c5.2xlarge | c5.4xlarge | c5.9xlarge | c5.12xlarge | c5.18xlarge | c5.24xlarge | c5a.large | c5a.xlarge | c5a.2xlarge | c5a.4xlarge | c5a.8xlarge | c5a.12xlarge | c5a.16xlarge | c5a.24xlarge | r3.large | r3.xlarge | r3.2xlarge | r3.4xlarge | r3.8xlarge | r4.large | r4.xlarge | r4.2xlarge | r4.4xlarge | r4.8xlarge | r4.16xlarge | r5.large | r5.xlarge | r5.2xlarge | r5.4xlarge | r5.8xlarge | r5.12xlarge | r5.16xlarge | r5.24xlarge | r5a.large | r5a.xlarge | r5a.2xlarge | r5a.4xlarge | r5a.8xlarge | r5a.12xlarge | r5a.16xlarge | r5a.24xlarge | m3.medium | m3.large | m3.xlarge | m3.2xlarge | m4.large | m4.xlarge | m4.2xlarge | m4.4xlarge | m4.10xlarge | m5.large | m5.xlarge | m5.2xlarge | m5.4xlarge | m5.8xlarge | m5.12xlarge | m5.16xlarge | m5.24xlarge | m5a.large | m5a.xlarge | m5a.2xlarge | m5a.4xlarge | m5a.8xlarge | m5a.12xlarge | m5a.16xlarge | m5a.24xlarge | c5d.large | c5d.xlarge | c5d.2xlarge | c5d.4xlarge | c5d.9xlarge | c5d.12xlarge | c5d.18xlarge | c5d.24xlarge | c6a.large | c6a.xlarge | c6a.2xlarge |`

`c6a.4xlarge | c6a.8xlarge | c6a.12xlarge | c6a.16xlarge | c6a.24xlarge | c6i.large | c6i.xlarge | c6i.2xlarge | c6i.4xlarge | c6i.8xlarge | c6i.12xlarge | c6i.16xlarge | c6i.24xlarge | r5d.large | r5d.xlarge | r5d.2xlarge | r5d.4xlarge | r5d.8xlarge | r5d.12xlarge | r5d.16xlarge | r5d.24xlarge | m6g.medium | m6g.large | m6g.xlarge | m6g.2xlarge | m6g.4xlarge | m6g.8xlarge | m6g.12xlarge | m6g.16xlarge | c6g.medium | c6g.large | c6g.xlarge | c6g.2xlarge | c6g.4xlarge | c6g.8xlarge | c6g.12xlarge | c6g.16xlarge | r6g.medium | r6g.large | r6g.xlarge | r6g.2xlarge | r6g.4xlarge | r6g.8xlarge | r6g.12xlarge | r6g.16xlarge | c6gn.medium | c6gn.large | c6gn.xlarge | c6gn.2xlarge | c6gn.4xlarge | c6gn.8xlarge | c6gn.12xlarge | c6gn.16xlarge | c7g.medium | c7g.large | c7g.xlarge | c7g.2xlarge | c7g.4xlarge | c7g.8xlarge | c7g.12xlarge | c7g.16xlarge | r7g.medium | r7g.large | r7g.xlarge | r7g.2xlarge | r7g.4xlarge | r7g.8xlarge | r7g.12xlarge | r7g.16xlarge | m7g.medium | m7g.large | m7g.xlarge | m7g.2xlarge | m7g.4xlarge | m7g.8xlarge | m7g.12xlarge | m7g.16xlarge | g5g.xlarge | g5g.2xlarge | g5g.4xlarge | g5g.8xlarge | g5g.16xlarge`

Required: No

LogPaths

This parameter is no longer used. Game session log paths are now defined using the Amazon GameLift server API `ProcessReady()` `logParameters`. See more information in the Server API Reference.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

MetricGroups

Name of a metric group that metrics for this fleet are added to. In Amazon CloudWatch, you can view aggregated metrics for fleets that are in a metric group. A fleet can be included in only one metric group at a time.

Type: Array of strings

Array Members: Maximum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: No

Name

A descriptive label that is associated with a fleet. Fleet names do not need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

NewGameSessionProtectionPolicy

The type of game session protection to set on all new instances that are started in the fleet.

- **NoProtection** -- The game session can be terminated during a scale-down event.
- **FullProtection** -- If the game session is in an `ACTIVE` status, it cannot be terminated during a scale-down event.

Type: String

Valid Values: `NoProtection | FullProtection`

Required: No

OperatingSystem

The operating system of the fleet's computing resources. A fleet's operating system is determined by the OS of the build or script that is deployed on this fleet.

Type: String

Valid Values: `WINDOWS_2012 | AMAZON_LINUX | AMAZON_LINUX_2 | WINDOWS_2016 | AMAZON_LINUX_2023`

Required: No

ResourceCreationLimitPolicy

A policy that puts limits on the number of game sessions that a player can create within a specified span of time. With this policy, you can control players' ability to consume available resources.

The policy is evaluated when a player tries to create a new game session. On receiving a `CreateGameSession` request, Amazon GameLift checks that the player (identified by `CreatorId`) has created fewer than game session limit in the specified time period.

Type: ResourceCreationLimitPolicy object

Required: No

ScriptArn

The Amazon Resource Name (ARN) associated with the GameLift script resource that is deployed on instances in this fleet. In a GameLift script ARN, the resource ID matches the `ScriptId` value.

Type: String

Pattern: `^arn:.*:script\/script-\S+`

Required: No

ScriptId

A unique identifier for the Realtime script resource that is deployed on instances in this fleet.

Type: String

Pattern: `^script-\S+`

Required: No

ServerLaunchParameters

This parameter is no longer used. Server launch parameters are now defined using the fleet's runtime configuration . Requests that use this parameter instead continue to be valid.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[A-Za-z0-9_:.+\/\\\- =@;{},?'\[\]"]+`

Required: No

ServerLaunchPath

This parameter is no longer used. Server launch paths are now defined using the fleet's RuntimeConfiguration . Requests that use this parameter instead continue to be valid.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[A-Za-z0-9_:.+\/\\\- ]+`

Required: No

Status

Current status of the fleet. Possible fleet statuses include the following:

- **NEW** -- A new fleet has been defined and desired instances is set to 1.
- **DOWNLOADING/VALIDATING/BUILDING/ACTIVATING** -- Amazon GameLift is setting up the new fleet, creating new instances with the game build or Realtime script and starting server processes.
- **ACTIVE** -- Hosts can now accept game sessions.
- **ERROR** -- An error occurred when downloading, validating, building, or activating the fleet.
- **DELETING** -- Hosts are responding to a delete fleet request.
- **TERMINATED** -- The fleet no longer exists.

Type: String

Valid Values: `NEW | DOWNLOADING | VALIDATING | BUILDING | ACTIVATING | ACTIVE | DELETING | ERROR | TERMINATED | NOT_FOUND`

Required: No

StoppedActions

A list of fleet activity that has been suspended using StopFleetActions . This includes fleet auto-scaling.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `AUTO_SCALING`

Required: No

TerminationTime

A time stamp indicating when this data object was terminated. Format is a number expressed in Unix time as milliseconds (for example "1469498468.057").

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

FleetCapacity

Current resource capacity settings in a specified fleet or location. The location value might refer to a fleet's remote location or its home Region.

Related actions

DescribeFleetCapacity | DescribeFleetLocationCapacity | UpdateFleetCapacity

Contents

> **Note**
>
> In the following list, the required parameters are described first.

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

Required: No

FleetId

A unique identifier for the fleet associated with the location.

Type: String

Pattern: `^fleet-\S+`

Required: No

InstanceCounts

Resource capacity settings. Fleet capacity is measured in Amazon EC2 instances. Pending and terminating counts are non-zero when the fleet capacity is adjusting to a scaling event or if access to resources is temporarily affected.

Type: EC2InstanceCounts object

Required: No

InstanceType

The Amazon EC2 instance type that is used for all instances in a fleet. The instance type determines the computing resources in use, including CPU, memory, storage, and networking capacity. See Amazon Elastic Compute Cloud Instance Types for detailed descriptions.

Type: String

Valid Values: `t2.micro | t2.small | t2.medium | t2.large | c3.large | c3.xlarge | c3.2xlarge | c3.4xlarge | c3.8xlarge | c4.large | c4.xlarge | c4.2xlarge | c4.4xlarge | c4.8xlarge | c5.large | c5.xlarge | c5.2xlarge | c5.4xlarge | c5.9xlarge | c5.12xlarge | c5.18xlarge | c5.24xlarge | c5a.large | c5a.xlarge | c5a.2xlarge | c5a.4xlarge | c5a.8xlarge | c5a.12xlarge | c5a.16xlarge | c5a.24xlarge | r3.large | r3.xlarge | r3.2xlarge | r3.4xlarge | r3.8xlarge | r4.large | r4.xlarge | r4.2xlarge | r4.4xlarge | r4.8xlarge | r4.16xlarge | r5.large | r5.xlarge | r5.2xlarge | r5.4xlarge | r5.8xlarge | r5.12xlarge | r5.16xlarge | r5.24xlarge | r5a.large | r5a.xlarge | r5a.2xlarge | r5a.4xlarge | r5a.8xlarge | r5a.12xlarge | r5a.16xlarge | r5a.24xlarge | m3.medium | m3.large | m3.xlarge | m3.2xlarge | m4.large | m4.xlarge | m4.2xlarge | m4.4xlarge | m4.10xlarge | m5.large | m5.xlarge | m5.2xlarge | m5.4xlarge | m5.8xlarge | m5.12xlarge | m5.16xlarge | m5.24xlarge | m5a.large | m5a.xlarge | m5a.2xlarge | m5a.4xlarge | m5a.8xlarge | m5a.12xlarge | m5a.16xlarge | m5a.24xlarge | c5d.large | c5d.xlarge | c5d.2xlarge | c5d.4xlarge | c5d.9xlarge | c5d.12xlarge | c5d.18xlarge | c5d.24xlarge | c6a.large | c6a.xlarge | c6a.2xlarge | c6a.4xlarge | c6a.8xlarge | c6a.12xlarge | c6a.16xlarge | c6a.24xlarge | c6i.large | c6i.xlarge | c6i.2xlarge | c6i.4xlarge | c6i.8xlarge | c6i.12xlarge | c6i.16xlarge | c6i.24xlarge | r5d.large | r5d.xlarge | r5d.2xlarge | r5d.4xlarge | r5d.8xlarge | r5d.12xlarge | r5d.16xlarge | r5d.24xlarge | m6g.medium | m6g.large | m6g.xlarge | m6g.2xlarge | m6g.4xlarge | m6g.8xlarge | m6g.12xlarge | m6g.16xlarge | c6g.medium | c6g.large | c6g.xlarge | c6g.2xlarge | c6g.4xlarge | c6g.8xlarge | c6g.12xlarge | c6g.16xlarge | r6g.medium | r6g.large | r6g.xlarge | r6g.2xlarge | r6g.4xlarge | r6g.8xlarge | r6g.12xlarge | r6g.16xlarge`

| c6gn.medium | c6gn.large | c6gn.xlarge | c6gn.2xlarge | c6gn.4xlarge | c6gn.8xlarge | c6gn.12xlarge | c6gn.16xlarge | c7g.medium | c7g.large | c7g.xlarge | c7g.2xlarge | c7g.4xlarge | c7g.8xlarge | c7g.12xlarge | c7g.16xlarge | r7g.medium | r7g.large | r7g.xlarge | r7g.2xlarge | r7g.4xlarge | r7g.8xlarge | r7g.12xlarge | r7g.16xlarge | m7g.medium | m7g.large | m7g.xlarge | m7g.2xlarge | m7g.4xlarge | m7g.8xlarge | m7g.12xlarge | m7g.16xlarge | g5g.xlarge | g5g.2xlarge | g5g.4xlarge | g5g.8xlarge | g5g.16xlarge

Required: No

Location

The fleet location for the instance count information, expressed as an AWS Region code, such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

FleetUtilization

Current resource utilization statistics in a specified fleet or location. The location value might refer to a fleet's remote location or its home Region.

Related actions

Contents

> **Note**
>
> In the following list, the required parameters are described first.

ActiveGameSessionCount

The number of active game sessions that are currently being hosted across all instances in the fleet location.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

ActiveServerProcessCount

The number of server processes in `ACTIVE` status that are currently running across all instances in the fleet location.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

CurrentPlayerSessionCount

The number of active player sessions that are currently being hosted across all instances in the fleet location.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

Required: No

FleetId

A unique identifier for the fleet associated with the location.

Type: String

Pattern: `^fleet-\S+`

Required: No

Location

The fleet location for the fleet utilization information, expressed as an AWS Region code, such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

MaximumPlayerSessionCount

The maximum number of players allowed across all game sessions that are currently being hosted across all instances in the fleet location.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GameProperty

This key-value pair can store custom data about a game session. For example, you might use a `GameProperty` to track a game session's map, level of difficulty, or remaining time. The difficulty level could be specified like this: `{"Key": "difficulty", "Value":"Novice"}`.

You can set game properties when creating a game session. You can also modify game properties of an active game session. When searching for game sessions, you can filter on game property keys and values. You can't delete game properties from a game session.

For examples of working with game properties, see Create a game session with properties.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

Key

The game property identifier.

Type: String

Length Constraints: Maximum length of 32.

Required: Yes

Value

The game property value.

Type: String

Length Constraints: Maximum length of 96.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GameServer

This data type is used with the Amazon GameLift FleetIQ and game server groups.

Properties describing a game server that is running on an instance in a game server group.

A game server is created by a successful call to `RegisterGameServer` and deleted by calling `DeregisterGameServer`. A game server is claimed to host a game session by calling `ClaimGameServer`.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

ClaimStatus

Indicates when an available game server has been reserved for gameplay but has not yet started hosting a game. Once it is claimed, the game server remains in `CLAIMED` status for a maximum of one minute. During this time, game clients connect to the game server to start the game and trigger the game server to update its utilization status. After one minute, the game server claim status reverts to null.

Type: String

Valid Values: `CLAIMED`

Required: No

ConnectionInfo

The port and IP address that must be used to establish a client connection to the game server.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `.*\S.*`

Required: No

GameServerData

A set of custom game server properties, formatted as a single string value. This data is passed to a game client or service when it requests information on game servers.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `.*\S.*`

Required: No

GameServerGroupArn

The ARN identifier for the game server group where the game server is located.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^arn:.*:gameservergroup\/[a-zA-Z0-9-\.]*`

Required: No

GameServerGroupName

A unique identifier for the game server group where the game server is running.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]+`

Required: No

GameServerId

A custom string that uniquely identifies the game server. Game server IDs are developer-defined and are unique across all game server groups in an AWS account.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]+`

Required: No

InstanceId

The unique identifier for the instance where the game server is running. This ID is available in the instance metadata. EC2 instance IDs use a 17-character format, for example: `i-1234567890abcdef0`.

Type: String

Length Constraints: Fixed length of 19.

Pattern: `^i-[0-9a-zA-Z]{17}$`

Required: No

LastClaimTime

Timestamp that indicates the last time the game server was claimed. The format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`). This value is used to calculate when a claimed game server's status should revert to null.

Type: Timestamp

Required: No

LastHealthCheckTime

Timestamp that indicates the last time the game server was updated with health status. The format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`). After game server registration, this property is only changed when a game server update specifies a health check value.

Type: Timestamp

Required: No

RegistrationTime

Timestamp that indicates when the game server registered. The format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

UtilizationStatus

Indicates whether the game server is currently available for new games or is busy. Possible statuses include:

- `AVAILABLE` - The game server is available to be claimed. A game server that has been claimed remains in this status until it reports game hosting activity.
- `UTILIZED` - The game server is currently hosting a game session with players.

Type: String

Valid Values: `AVAILABLE | UTILIZED`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GameServerGroup

This data type is used with the Amazon GameLift FleetIQ and game server groups.

Properties that describe a game server group resource. A game server group manages certain properties related to a corresponding Amazon EC2 Auto Scaling group.

A game server group is created by a successful call to `CreateGameServerGroup` and deleted by calling `DeleteGameServerGroup`. Game server group activity can be temporarily suspended and resumed by calling `SuspendGameServerGroup` and `ResumeGameServerGroup`, respectively.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

AutoScalingGroupArn

A generated unique ID for the Amazon EC2 Auto Scaling group that is associated with this game server group.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]*`

Required: No

BalancingStrategy

Indicates how Amazon GameLift FleetIQ balances the use of Spot Instances and On-Demand Instances in the game server group. Method options include the following:

- `SPOT_ONLY` - Only Spot Instances are used in the game server group. If Spot Instances are unavailable or not viable for game hosting, the game server group provides no hosting capacity until Spot Instances can again be used. Until then, no new instances are started, and the existing nonviable Spot Instances are terminated (after current gameplay ends) and are not replaced.

- SPOT_PREFERRED - (default value) Spot Instances are used whenever available in the game server group. If Spot Instances are unavailable, the game server group continues to provide hosting capacity by falling back to On-Demand Instances. Existing nonviable Spot Instances are terminated (after current gameplay ends) and are replaced with new On-Demand Instances.
- ON_DEMAND_ONLY - Only On-Demand Instances are used in the game server group. No Spot Instances are used, even when available, while this balancing strategy is in force.

Type: String

Valid Values: SPOT_ONLY | SPOT_PREFERRED | ON_DEMAND_ONLY

Required: No

CreationTime

A time stamp indicating when this data object was created. Format is a number expressed in Unix time as milliseconds (for example "1469498468.057").

Type: Timestamp

Required: No

GameServerGroupArn

A generated unique ID for the game server group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^arn:.*:gameservergroup\/[a-zA-Z0-9-\.]*

Required: No

GameServerGroupName

A developer-defined identifier for the game server group. The name is unique for each Region in each AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]+`

Required: No

GameServerProtectionPolicy

A flag that indicates whether instances in the game server group are protected from early termination. Unprotected instances that have active game servers running might be terminated during a scale-down event, causing players to be dropped from the game. Protected instances cannot be terminated while there are active game servers running except in the event of a forced game server group deletion (see). An exception to this is with Spot Instances, which can be terminated by AWS regardless of protection status.

Type: String

Valid Values: `NO_PROTECTION | FULL_PROTECTION`

Required: No

InstanceDefinitions

The set of Amazon EC2 instance types that Amazon GameLift FleetIQ can use when balancing and automatically scaling instances in the corresponding Auto Scaling group.

Type: Array of InstanceDefinition objects

Array Members: Minimum number of 2 items. Maximum number of 20 items.

Required: No

LastUpdatedTime

A timestamp that indicates when this game server group was last updated.

Type: Timestamp

Required: No

RoleArn

The Amazon Resource Name (ARN) for an IAM role that allows Amazon GameLift to access your Amazon EC2 Auto Scaling groups.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^arn:.*:role\/[\w+=,.@-]+`

Required: No

Status

The current status of the game server group. Possible statuses include:

- `NEW` - Amazon GameLift FleetIQ has validated the `CreateGameServerGroup()` request.
- `ACTIVATING` - Amazon GameLift FleetIQ is setting up a game server group, which includes creating an Auto Scaling group in your AWS account.
- `ACTIVE` - The game server group has been successfully created.
- `DELETE_SCHEDULED` - A request to delete the game server group has been received.
- `DELETING` - Amazon GameLift FleetIQ has received a valid `DeleteGameServerGroup()` request and is processing it. Amazon GameLift FleetIQ must first complete and release hosts before it deletes the Auto Scaling group and the game server group.
- `DELETED` - The game server group has been successfully deleted.
- `ERROR` - The asynchronous processes of activating or deleting a game server group has failed, resulting in an error state.

Type: String

Valid Values: `NEW | ACTIVATING | ACTIVE | DELETE_SCHEDULED | DELETING | DELETED | ERROR`

Required: No

StatusReason

Additional information about the current game server group status. This information might provide additional insight on groups that are in `ERROR` status.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

SuspendedActions

A list of activities that are currently suspended for this game server group. If this property is empty, all activities are occurring.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `REPLACE_INSTANCE_TYPES`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GameServerGroupAutoScalingPolicy

This data type is used with the Amazon GameLift FleetIQ and game server groups.

Configuration settings for intelligent automatic scaling that uses target tracking. These settings are used to add an Auto Scaling policy when creating the corresponding Auto Scaling group. After the Auto Scaling group is created, all updates to Auto Scaling policies, including changing this policy and adding or removing other policies, is done directly on the Auto Scaling group.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

TargetTrackingConfiguration

Settings for a target-based scaling policy applied to Auto Scaling group. These settings are used to create a target-based policy that tracks the Amazon GameLift FleetIQ metric `"PercentUtilizedGameServers"` and specifies a target value for the metric. As player usage changes, the policy triggers to adjust the game server group capacity so that the metric returns to the target value.

Type: TargetTrackingConfiguration object

Required: Yes

EstimatedInstanceWarmup

Length of time, in seconds, it takes for a new instance to start new game server processes and register with Amazon GameLift FleetIQ. Specifying a warm-up time can be useful, particularly with game servers that take a long time to start up, because it avoids prematurely starting new instances.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GameServerInstance

This data type is used with the Amazon GameLift FleetIQ and game server groups.

Additional properties, including status, that describe an EC2 instance in a game server group. Instance configurations are set with game server group properties (see `DescribeGameServerGroup` and with the EC2 launch template that was used when creating the game server group.

Retrieve game server instances for a game server group by calling `DescribeGameServerInstances`.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

GameServerGroupArn

A generated unique identifier for the game server group that includes the game server instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^arn:.*:gameservergroup\/[a-zA-Z0-9-\.]*`

Required: No

GameServerGroupName

A developer-defined identifier for the game server group that includes the game server instance. The name is unique for each Region in each AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]+`

Required: No

InstanceId

The unique identifier for the instance where the game server is running. This ID is available in the instance metadata. EC2 instance IDs use a 17-character format, for example: `i-1234567890abcdef0`.

Type: String

Length Constraints: Fixed length of 19.

Pattern: `^i-[0-9a-zA-Z]{17}$`

Required: No

InstanceStatus

Current status of the game server instance

Type: String

Valid Values: `ACTIVE | DRAINING | SPOT_TERMINATING`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GameSession

Properties describing a game session.

A game session in ACTIVE status can host players. When a game session ends, its status is set to `TERMINATED`.

Amazon GameLift retains a game session resource for 30 days after the game session ends. You can reuse idempotency token values after this time. Game session logs are retained for 14 days.

All APIs by task

Contents

> **Note**
>
> In the following list, the required parameters are described first.

CreationTime

A time stamp indicating when this data object was created. Format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

CreatorId

A unique identifier for a player. This ID is used to enforce a resource protection policy (if one exists), that limits the number of game sessions a player can create.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

CurrentPlayerSessionCount

Number of players currently in the game session.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

DnsName

The DNS identifier assigned to the instance that is running the game session. Values have the following format:

- TLS-enabled fleets: `<unique identifier>.<region identifier>.amazongamelift.com`.
- Non-TLS-enabled fleets: `ec2-<unique identifier>.compute.amazonaws.com`. (See Amazon EC2 Instance IP Addressing.)

When connecting to a game session that is running on a TLS-enabled fleet, you must use the DNS name, not the IP address.

Type: String

Required: No

FleetArn

The Amazon Resource Name (ARN) associated with the GameLift fleet that this game session is running on.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

Required: No

FleetId

A unique identifier for the fleet that the game session is running on.

Type: String

Pattern: `^fleet-\S+`

Required: No

GameProperties

A set of key-value pairs that can store custom data in a game session. For example: `{"Key": "difficulty", "Value": "novice"}`.

Type: Array of GameProperty objects

Array Members: Maximum number of 16 items.

Required: No

GameSessionData

A set of custom game session properties, formatted as a single string value. This data is passed to a game server process with a request to start a new game session (see Start a Game Session).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 262144.

Required: No

GameSessionId

A unique identifier for the game session. A game session ARN has the following format: `arn:aws:gamelift:<region>::gamesession/<fleet ID>/<custom ID string or idempotency token>`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

IpAddress

The IP address of the game session. To connect to a Amazon GameLift game server, an app needs both the IP address and port number.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[0-9A-Fa-f\:\.]+`

Required: No

Location

The fleet location where the game session is running. This value might specify the fleet's home Region or a remote location. Location is expressed as an AWS Region code such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

MatchmakerData

Information about the matchmaking process that resulted in the game session, if matchmaking was used. Data is in JSON syntax, formatted as a string. Information includes the matchmaker ID as well as player attributes and team assignments. For more details on matchmaker data, see Match Data. Matchmaker data is updated whenever new players are added during a successful backfill (see StartMatchBackfill).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 390000.

Required: No

MaximumPlayerSessionCount

The maximum number of players that can be connected simultaneously to the game session.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

Name

A descriptive label that is associated with a game session. Session names do not need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

PlayerSessionCreationPolicy

Indicates whether or not the game session is accepting new players.

Type: String

Valid Values: `ACCEPT_ALL | DENY_ALL`

Required: No

Port

The port number for the game session. To connect to a Amazon GameLift game server, an app needs both the IP address and port number.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 60000.

Required: No

Status

Current status of the game session. A game session must have an `ACTIVE` status to have player sessions.

Type: String

Valid Values: `ACTIVE | ACTIVATING | TERMINATED | TERMINATING | ERROR`

Required: No

StatusReason

Provides additional information about game session status. `INTERRUPTED` indicates that the game session was hosted on a spot instance that was reclaimed, causing the active game session to be terminated.

Type: String

Valid Values: `INTERRUPTED`

Required: No

TerminationTime

A time stamp indicating when this data object was terminated. Format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GameSessionConnectionInfo

Connection information for a new game session that is created in response to a start matchmaking request. Once a match is made, the FlexMatch engine creates a new game session for it. This information, including the game session endpoint and player sessions for each player in the original matchmaking request, is added to the matchmaking ticket.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

DnsName

The DNS identifier assigned to the instance that is running the game session. Values have the following format:

- TLS-enabled fleets: `<unique identifier>.<region identifier>.amazongamelift.com`.
- Non-TLS-enabled fleets: `ec2-<unique identifier>.compute.amazonaws.com`. (See Amazon EC2 Instance IP Addressing.)

When connecting to a game session that is running on a TLS-enabled fleet, you must use the DNS name, not the IP address.

Type: String

Required: No

GameSessionArn

A unique identifier for the game session. Use the game session ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9:/-]+`

Required: No

IpAddress

The IP address of the game session. To connect to a Amazon GameLift game server, an app needs both the IP address and port number.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[0-9A-Fa-f\:\.]+`

Required: No

MatchedPlayerSessions

A collection of player session IDs, one for each player ID that was included in the original matchmaking request.

Type: Array of MatchedPlayerSession objects

Required: No

Port

The port number for the game session. To connect to a Amazon GameLift game server, an app needs both the IP address and port number.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GameSessionDetail

A game session's properties plus the protection policy currently in force.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

GameSession

Object that describes a game session.

Type: GameSession object

Required: No

ProtectionPolicy

Current status of protection for the game session.

- **NoProtection** -- The game session can be terminated during a scale-down event.
- **FullProtection** -- If the game session is in an `ACTIVE` status, it cannot be terminated during a scale-down event.

Type: String

Valid Values: `NoProtection | FullProtection`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go

- AWS SDK for Java V2
- AWS SDK for Ruby V3

GameSessionPlacement

Represents a potential game session placement, including the full details of the original placement request and the current status.

> **Note**
>
> If the game session placement status is `PENDING`, the properties for game session ID/ARN, region, IP address/DNS, and port aren't final. A game session is not active and ready to accept players until placement status reaches `FULFILLED`. When the placement is in `PENDING` status, Amazon GameLift may attempt to place a game session multiple times before succeeding. With each attempt it creates a GameSession object and updates this placement object with the new game session properties..

Contents

> **Note**
>
> In the following list, the required parameters are described first.

DnsName

The DNS identifier assigned to the instance that is running the game session. Values have the following format:

- TLS-enabled fleets: `<unique identifier>.<region identifier>.amazongamelift.com`.
- Non-TLS-enabled fleets: `ec2-<unique identifier>.compute.amazonaws.com`. (See Amazon EC2 Instance IP Addressing.)

When connecting to a game session that is running on a TLS-enabled fleet, you must use the DNS name, not the IP address.

Type: String

Required: No

EndTime

Time stamp indicating when this request was completed, canceled, or timed out.

Type: Timestamp

Required: No

GameProperties

A set of key-value pairs that can store custom data in a game session. For example: `{"Key": "difficulty", "Value": "novice"}`.

Type: Array of GameProperty objects

Array Members: Maximum number of 16 items.

Required: No

GameSessionArn

Identifier for the game session created by this placement request. This identifier is unique across all Regions. This value isn't final until placement status is `FULFILLED`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

GameSessionData

A set of custom game session properties, formatted as a single string value. This data is passed to a game server process in the `GameSession` object with a request to start a new game session (see Start a Game Session).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 262144.

Required: No

GameSessionId

A unique identifier for the game session. This value isn't final until placement status is `FULFILLED`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

GameSessionName

A descriptive label that is associated with a game session. Session names do not need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

GameSessionQueueName

A descriptive label that is associated with game session queue. Queue names must be unique within each Region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-]+`

Required: No

GameSessionRegion

Name of the Region where the game session created by this placement request is running. This value isn't final until placement status is `FULFILLED`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

IpAddress

The IP address of the game session. To connect to a Amazon GameLift game server, an app needs both the IP address and port number. This value isn't final until placement status is `FULFILLED`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[0-9A-Fa-f\:\.]+`

Required: No

MatchmakerData

Information on the matchmaking process for this game. Data is in JSON syntax, formatted as a string. It identifies the matchmaking configuration used to create the match, and contains data on all players assigned to the match, including player attributes and team assignments. For more details on matchmaker data, see Match Data.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 390000.

Required: No

MaximumPlayerSessionCount

The maximum number of players that can be connected simultaneously to the game session.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

PlacedPlayerSessions

A collection of information on player sessions created in response to the game session placement request. These player sessions are created only after a new game session is successfully placed (placement status is `FULFILLED`). This information includes the player ID, provided in the placement request, and a corresponding player session ID.

Type: Array of PlacedPlayerSession objects

Required: No

PlacementId

A unique identifier for a game session placement.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 48.

Pattern: `[a-zA-Z0-9-]+`

Required: No

PlayerLatencies

A set of values, expressed in milliseconds, that indicates the amount of latency that a player experiences when connected to AWS Regions.

Type: Array of PlayerLatency objects

Required: No

Port

The port number for the game session. To connect to a Amazon GameLift game server, an app needs both the IP address and port number. This value isn't final until placement status is `FULFILLED`.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 60000.

Required: No

StartTime

Time stamp indicating when this request was placed in the queue. Format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

Status

Current status of the game session placement request.

- **PENDING** -- The placement request is in the queue waiting to be processed. Game session properties are not yet final.
- **FULFILLED** -- A new game session has been successfully placed. Game session properties are now final.

- **CANCELLED** -- The placement request was canceled.
- **TIMED_OUT** -- A new game session was not successfully created before the time limit expired. You can resubmit the placement request as needed.
- **FAILED** -- Amazon GameLift is not able to complete the process of placing the game session. Common reasons are the game session terminated before the placement process was completed, or an unexpected internal error.

Type: String

Valid Values: `PENDING | FULFILLED | CANCELLED | TIMED_OUT | FAILED`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GameSessionQueue

Configuration for a game session placement mechanism that processes requests for new game sessions. A queue can be used on its own or as part of a matchmaking solution.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

CustomEventData

Information that is added to all events that are related to this game session queue.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: `[\s\S]*`

Required: No

Destinations

A list of fleets and/or fleet aliases that can be used to fulfill game session placement requests in the queue. Destinations are identified by either a fleet ARN or a fleet alias ARN, and are listed in order of placement preference.

Type: Array of GameSessionQueueDestination objects

Required: No

FilterConfiguration

A list of locations where a queue is allowed to place new game sessions. Locations are specified in the form of AWS Region codes, such as `us-west-2`. If this parameter is not set, game sessions can be placed in any queue location.

Type: FilterConfiguration object

Required: No

GameSessionQueueArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift game session queue resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::gamesessionqueue/<queue name>`. In a Amazon GameLift game session queue ARN, the resource ID matches the *Name* value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^arn:.*:gamesessionqueue\/[a-zA-Z0-9-]+`

Required: No

Name

A descriptive label that is associated with game session queue. Queue names must be unique within each Region.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[a-zA-Z0-9-]+`

Required: No

NotificationTarget

An SNS topic ARN that is set up to receive game session placement notifications. See Setting up notifications for game session placement.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 300.

Pattern: `[a-zA-Z0-9:_-]*(\.fifo)?`

Required: No

PlayerLatencyPolicies

A set of policies that act as a sliding cap on player latency. FleetIQ works to deliver low latency for most players in a game session. These policies ensure that no individual player can be placed

into a game with unreasonably high latency. Use multiple policies to gradually relax latency requirements a step at a time. Multiple policies are applied based on their maximum allowed latency, starting with the lowest value.

Type: Array of PlayerLatencyPolicy objects

Required: No

PriorityConfiguration

Custom settings to use when prioritizing destinations and locations for game session placements. This configuration replaces the FleetIQ default prioritization process. Priority types that are not explicitly named will be automatically applied at the end of the prioritization process.

Type: PriorityConfiguration object

Required: No

TimeoutInSeconds

The maximum time, in seconds, that a new game session placement request remains in the queue. When a request exceeds this time, the game session placement changes to a `TIMED_OUT` status. By default, this property is set to `600`.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

GameSessionQueueDestination

A fleet or alias designated in a game session queue. Queues fulfill requests for new game sessions by placing a new game session on any of the queue's destinations.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

DestinationArn

The Amazon Resource Name (ARN) that is assigned to fleet or fleet alias. ARNs, which include a fleet ID or alias ID and a Region name, provide a unique identifier across all Regions.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9:/-]+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Instance

Represents a virtual computing instance that runs game server processes and hosts game sessions. In Amazon GameLift, one or more instances make up a managed EC2 fleet.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

CreationTime

A time stamp indicating when this data object was created. Format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

DnsName

The DNS identifier assigned to the instance that is running the game session. Values have the following format:

- TLS-enabled fleets: `<unique identifier>.<region identifier>.amazongamelift.com`.
- Non-TLS-enabled fleets: `ec2-<unique identifier>.compute.amazonaws.com`. (See Amazon Elastic Compute Cloud Instance IP Addressing.)

When connecting to a game session that is running on a TLS-enabled fleet, you must use the DNS name, not the IP address.

Type: String

Required: No

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is

arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912.

Type: String

Pattern: ^arn:.*:fleet\/fleet-\S+

Required: No

FleetId

A unique identifier for the fleet that the instance belongs to.

Type: String

Pattern: ^fleet-\S+

Required: No

InstanceId

A unique identifier for the instance.

Type: String

Pattern: [a-zA-Z0-9\.-]+

Required: No

IpAddress

IP address that is assigned to the instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[0-9A-Fa-f\:\.]+

Required: No

Location

The fleet location of the instance, expressed as an AWS Region code, such as us-west-2.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

OperatingSystem

Operating system that is running on this EC2 instance.

Type: String

Valid Values: `WINDOWS_2012 | AMAZON_LINUX | AMAZON_LINUX_2 | WINDOWS_2016 | AMAZON_LINUX_2023`

Required: No

Status

Current status of the instance. Possible statuses include the following:

- **PENDING** -- The instance is in the process of being created and launching server processes as defined in the fleet's run-time configuration.
- **ACTIVE** -- The instance has been successfully created and at least one server process has successfully launched and reported back to Amazon GameLift that it is ready to host a game session. The instance is now considered ready to host game sessions.
- **TERMINATING** -- The instance is in the process of shutting down. This may happen to reduce capacity during a scaling down event or to recycle resources in the event of a problem.

Type: String

Valid Values: `PENDING | ACTIVE | TERMINATING`

Required: No

Type

EC2 instance type that defines the computing resources of this instance.

Type: String

Valid Values: t2.micro | t2.small | t2.medium | t2.large | c3.large | c3.xlarge | c3.2xlarge | c3.4xlarge | c3.8xlarge | c4.large | c4.xlarge | c4.2xlarge | c4.4xlarge | c4.8xlarge | c5.large | c5.xlarge | c5.2xlarge | c5.4xlarge | c5.9xlarge | c5.12xlarge | c5.18xlarge | c5.24xlarge | c5a.large | c5a.xlarge | c5a.2xlarge | c5a.4xlarge | c5a.8xlarge | c5a.12xlarge | c5a.16xlarge | c5a.24xlarge | r3.large | r3.xlarge | r3.2xlarge | r3.4xlarge | r3.8xlarge | r4.large | r4.xlarge | r4.2xlarge | r4.4xlarge | r4.8xlarge | r4.16xlarge | r5.large | r5.xlarge | r5.2xlarge | r5.4xlarge | r5.8xlarge | r5.12xlarge | r5.16xlarge | r5.24xlarge | r5a.large | r5a.xlarge | r5a.2xlarge | r5a.4xlarge | r5a.8xlarge | r5a.12xlarge | r5a.16xlarge | r5a.24xlarge | m3.medium | m3.large | m3.xlarge | m3.2xlarge | m4.large | m4.xlarge | m4.2xlarge | m4.4xlarge | m4.10xlarge | m5.large | m5.xlarge | m5.2xlarge | m5.4xlarge | m5.8xlarge | m5.12xlarge | m5.16xlarge | m5.24xlarge | m5a.large | m5a.xlarge | m5a.2xlarge | m5a.4xlarge | m5a.8xlarge | m5a.12xlarge | m5a.16xlarge | m5a.24xlarge | c5d.large | c5d.xlarge | c5d.2xlarge | c5d.4xlarge | c5d.9xlarge | c5d.12xlarge | c5d.18xlarge | c5d.24xlarge | c6a.large | c6a.xlarge | c6a.2xlarge | c6a.4xlarge | c6a.8xlarge | c6a.12xlarge | c6a.16xlarge | c6a.24xlarge | c6i.large | c6i.xlarge | c6i.2xlarge | c6i.4xlarge | c6i.8xlarge | c6i.12xlarge | c6i.16xlarge | c6i.24xlarge | r5d.large | r5d.xlarge | r5d.2xlarge | r5d.4xlarge | r5d.8xlarge | r5d.12xlarge | r5d.16xlarge | r5d.24xlarge | m6g.medium | m6g.large | m6g.xlarge | m6g.2xlarge | m6g.4xlarge | m6g.8xlarge | m6g.12xlarge | m6g.16xlarge | c6g.medium | c6g.large | c6g.xlarge | c6g.2xlarge | c6g.4xlarge | c6g.8xlarge | c6g.12xlarge | c6g.16xlarge | r6g.medium | r6g.large | r6g.xlarge | r6g.2xlarge | r6g.4xlarge | r6g.8xlarge | r6g.12xlarge | r6g.16xlarge | c6gn.medium | c6gn.large | c6gn.xlarge | c6gn.2xlarge | c6gn.4xlarge | c6gn.8xlarge | c6gn.12xlarge | c6gn.16xlarge | c7g.medium | c7g.large | c7g.xlarge | c7g.2xlarge | c7g.4xlarge | c7g.8xlarge | c7g.12xlarge | c7g.16xlarge | r7g.medium | r7g.large | r7g.xlarge | r7g.2xlarge | r7g.4xlarge | r7g.8xlarge | r7g.12xlarge | r7g.16xlarge | m7g.medium | m7g.large | m7g.xlarge | m7g.2xlarge | m7g.4xlarge | m7g.8xlarge | m7g.12xlarge | m7g.16xlarge | g5g.xlarge | g5g.2xlarge | g5g.4xlarge | g5g.8xlarge | g5g.16xlarge

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

InstanceAccess

Information and credentials that you can use to remotely connect to an instance in an EC2 managed fleet. This data type is returned in response to a call to GetInstanceAccess.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

Credentials

Security credentials that are required to access the instance.

Type: InstanceCredentials object

Required: No

FleetId

A unique identifier for the fleet containing the instance to be accessed.

Type: String

Pattern: `^fleet-\S+`

Required: No

InstanceId

A unique identifier for the instance to be accessed.

Type: String

Pattern: `[a-zA-Z0-9\.-]+`

Required: No

IpAddress

IP address assigned to the instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[0-9A-Fa-f\:\.]+`

Required: No

OperatingSystem

Operating system that is running on the instance.

Type: String

Valid Values: `WINDOWS_2012 | AMAZON_LINUX | AMAZON_LINUX_2 | WINDOWS_2016 | AMAZON_LINUX_2023`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

InstanceCredentials

A set of credentials that allow remote access to an instance in an EC2 managed fleet. These credentials are returned in response to a call to GetInstanceAccess, which requests access for instances that are running game servers with the Amazon GameLift server SDK version 4.x or earlier.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

Secret

Secret string. For Windows instances, the secret is a password for use with Windows Remote Desktop. For Linux instances, it's a private key for use with SSH.

Type: String

Length Constraints: Minimum length of 1.

Required: No

UserName

A user name for logging in.

Type: String

Length Constraints: Minimum length of 1.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++

- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

InstanceDefinition

This data type is used with the Amazon GameLift FleetIQ and game server groups.

An allowed instance type for a game server group. All game server groups must have at least two instance types defined for it. Amazon GameLift FleetIQ periodically evaluates each defined instance type for viability. It then updates the Auto Scaling group with the list of viable instance types.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

InstanceType

An Amazon EC2 instance type designation.

Type: String

Valid Values: `c4.large | c4.xlarge | c4.2xlarge | c4.4xlarge | c4.8xlarge | c5.large | c5.xlarge | c5.2xlarge | c5.4xlarge | c5.9xlarge | c5.12xlarge | c5.18xlarge | c5.24xlarge | c5a.large | c5a.xlarge | c5a.2xlarge | c5a.4xlarge | c5a.8xlarge | c5a.12xlarge | c5a.16xlarge | c5a.24xlarge | c6g.medium | c6g.large | c6g.xlarge | c6g.2xlarge | c6g.4xlarge | c6g.8xlarge | c6g.12xlarge | c6g.16xlarge | r4.large | r4.xlarge | r4.2xlarge | r4.4xlarge | r4.8xlarge | r4.16xlarge | r5.large | r5.xlarge | r5.2xlarge | r5.4xlarge | r5.8xlarge | r5.12xlarge | r5.16xlarge | r5.24xlarge | r5a.large | r5a.xlarge | r5a.2xlarge | r5a.4xlarge | r5a.8xlarge | r5a.12xlarge | r5a.16xlarge | r5a.24xlarge | r6g.medium | r6g.large | r6g.xlarge | r6g.2xlarge | r6g.4xlarge | r6g.8xlarge | r6g.12xlarge | r6g.16xlarge | m4.large | m4.xlarge | m4.2xlarge | m4.4xlarge | m4.10xlarge | m5.large | m5.xlarge | m5.2xlarge | m5.4xlarge | m5.8xlarge | m5.12xlarge | m5.16xlarge | m5.24xlarge | m5a.large | m5a.xlarge | m5a.2xlarge | m5a.4xlarge | m5a.8xlarge | m5a.12xlarge | m5a.16xlarge | m5a.24xlarge | m6g.medium`

`| m6g.large | m6g.xlarge | m6g.2xlarge | m6g.4xlarge | m6g.8xlarge | m6g.12xlarge | m6g.16xlarge`

Required: Yes

WeightedCapacity

Instance weighting that indicates how much this instance type contributes to the total capacity of a game server group. Instance weights are used by Amazon GameLift FleetIQ to calculate the instance type's cost per unit hour and better identify the most cost-effective options. For detailed information on weighting instance capacity, see Instance Weighting in the *Amazon Elastic Compute Cloud Auto Scaling User Guide*. Default value is "1".

Type: String

Length Constraints: Minimum length of 1. Maximum length of 3.

Pattern: `^[\u0031-\u0039][\u0030-\u0039]{0,2}$`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

IpPermission

A range of IP addresses and port settings that allow inbound traffic to connect to server processes on an instance in a fleet. New game sessions are assigned an IP address/port number combination, which must fall into the fleet's allowed ranges. Fleets with custom game builds must have permissions explicitly set. For Realtime Servers fleets, Amazon GameLift automatically opens two port ranges, one for TCP messaging and one for UDP.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

FromPort

A starting value for a range of allowed port numbers.

For fleets using Linux builds, only ports 22 and `1026-60000` are valid.

For fleets using Windows builds, only ports `1026-60000` are valid.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 60000.

Required: Yes

IpRange

A range of allowed IP addresses. This value must be expressed in CIDR notation. Example: "`000.000.000.000/[subnet mask]`" or optionally the shortened version "`0.0.0.0/[subnet mask]`".

Type: String

Pattern: `[^\s]+`

Required: Yes

Protocol

The network communication protocol used by the fleet.

Type: String

Valid Values: `TCP | UDP`

Required: Yes

ToPort

An ending value for a range of allowed port numbers. Port numbers are end-inclusive. This value must be equal to or greater than `FromPort`.

For fleets using Linux builds, only ports 22 and `1026-60000` are valid.

For fleets using Windows builds, only ports `1026-60000` are valid.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 60000.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

LaunchTemplateSpecification

This data type is used with the Amazon GameLift FleetIQ and game server groups.

An Amazon Elastic Compute Cloud launch template that contains configuration settings and game server code to be deployed to all instances in a game server group. The launch template is specified when creating a new game server group.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

LaunchTemplateId

A unique identifier for an existing Amazon EC2 launch template.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]+`

Required: No

LaunchTemplateName

A readable identifier for an existing Amazon EC2 launch template.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 128.

Pattern: `[a-zA-Z0-9\(\)\.\-/_]+`

Required: No

Version

The version of the Amazon EC2 launch template to use. If no version is specified, the default version will be used. With Amazon EC2, you can specify a default version for a launch template. If none is set, the default is the first version created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `[\u0020-\uD7FF\uE000-\uFFFD\uD800\uDC00-\uDBFF\uDFFF\r\n\t]+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

LocationAttributes

Details about a location in a multi-location fleet.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

LocationState

A fleet location and its current life-cycle state.

Type: LocationState object

Required: No

StoppedActions

A list of fleet actions that have been suspended in the fleet location.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `AUTO_SCALING`

Required: No

UpdateStatus

The status of fleet activity updates to the location. The status `PENDING_UPDATE` indicates that `StopFleetActions` or `StartFleetActions` has been requested but the update has not yet been completed for the location.

Type: String

Valid Values: `PENDING_UPDATE`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

LocationConfiguration

A remote location where a multi-location fleet can deploy game servers for game hosting.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

Location

An AWS Region code, such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

LocationModel

Properties of a location

Contents

> **Note**
>
> In the following list, the required parameters are described first.

LocationArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift location resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::location/location-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^arn:.*:location\/custom-\S+`

Required: No

LocationName

The location's name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

LocationState

A fleet location and its life-cycle state. A location state object might be used to describe a fleet's remote location or home Region. Life-cycle state tracks the progress of launching the first instance in a new location and preparing it for game hosting, and then removing all instances and deleting the location from the fleet.

- **NEW** -- A new fleet location has been defined and desired instances is set to 1.
- **DOWNLOADING/VALIDATING/BUILDING/ACTIVATING** -- Amazon GameLift is setting up the new fleet location, creating new instances with the game build or Realtime script and starting server processes.
- **ACTIVE** -- Hosts can now accept game sessions.
- **ERROR** -- An error occurred when downloading, validating, building, or activating the fleet location.
- **DELETING** -- Hosts are responding to a delete fleet location request.
- **TERMINATED** -- The fleet location no longer exists.
- **NOT_FOUND** -- The fleet location was not found. This could be because the custom location was removed or not created.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

Location

The fleet location, expressed as an AWS Region code such as `us-west-2`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

Status

The life-cycle status of a fleet location.

Type: String

Valid Values: `NEW | DOWNLOADING | VALIDATING | BUILDING | ACTIVATING | ACTIVE | DELETING | ERROR | TERMINATED | NOT_FOUND`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MatchedPlayerSession

Represents a new player session that is created as a result of a successful FlexMatch match. A successful match automatically creates new player sessions for every player ID in the original matchmaking request.

When players connect to the match's game session, they must include both player ID and player session ID in order to claim their assigned player slot.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

PlayerId

A unique identifier for a player

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

PlayerSessionId

A unique identifier for a player session

Type: String

Pattern: `^psess-\S+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MatchmakingConfiguration

Guidelines for use with FlexMatch to match players into games. All matchmaking requests must specify a matchmaking configuration.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

AcceptanceRequired

A flag that indicates whether a match that was created with this configuration must be accepted by the matched players. To require acceptance, set to TRUE. When this option is enabled, matchmaking tickets use the status `REQUIRES_ACCEPTANCE` to indicate when a completed potential match is waiting for player acceptance.

Type: Boolean

Required: No

AcceptanceTimeoutSeconds

The length of time (in seconds) to wait for players to accept a proposed match, if acceptance is required. If any player rejects the match or fails to accept before the timeout, the ticket continues to look for an acceptable match.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 600.

Required: No

AdditionalPlayerCount

The number of player slots in a match to keep open for future players. For example, if the configuration's rule set specifies a match for a single 10-person team, and the additional player count is set to 2, 10 players will be selected for the match and 2 more player slots will be open for future players. This parameter is not used when `FlexMatchMode` is set to `STANDALONE`.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

BackfillMode

The method used to backfill game sessions created with this matchmaking configuration. MANUAL indicates that the game makes backfill requests or does not use the match backfill feature. AUTOMATIC indicates that GameLift creates backfill requests whenever a game session has one or more open slots. Learn more about manual and automatic backfill in Backfill existing games with FlexMatch. Automatic backfill is not available when `FlexMatchMode` is set to `STANDALONE`.

Type: String

Valid Values: `AUTOMATIC | MANUAL`

Required: No

ConfigurationArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift matchmaking configuration resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::matchmakingconfiguration/<matchmaking configuration name>`. In a Amazon GameLift configuration ARN, the resource ID matches the *Name* value.

Type: String

Pattern: `^arn:.*:matchmakingconfiguration\/[a-zA-Z0-9-\.]*`

Required: No

CreationTime

A time stamp indicating when this data object was created. Format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

CustomEventData

Information to attach to all events related to the matchmaking configuration.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: No

Description

A descriptive label that is associated with matchmaking configuration.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

FlexMatchMode

Indicates whether this matchmaking configuration is being used with Amazon GameLift hosting or as a standalone matchmaking solution.

- **STANDALONE** - FlexMatch forms matches and returns match information, including players and team assignments, in a MatchmakingSucceeded event.
- **WITH_QUEUE** - FlexMatch forms matches and uses the specified Amazon GameLift queue to start a game session for the match.

Type: String

Valid Values: `STANDALONE | WITH_QUEUE`

Required: No

GameProperties

A set of key-value pairs that can store custom data in a game session. For example: `{"Key": "difficulty", "Value": "novice"}`. This information is added to the new `GameSession` object that is created for a successful match. This parameter is not used when `FlexMatchMode` is set to `STANDALONE`.

Type: Array of GameProperty objects

Array Members: Maximum number of 16 items.

Required: No

GameSessionData

A set of custom game session properties, formatted as a single string value. This data is passed to a game server process with a request to start a new game session (see Start a Game Session). This information is added to the new `GameSession` object that is created for a successful match. This parameter is not used when `FlexMatchMode` is set to `STANDALONE`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 4096.

Required: No

GameSessionQueueArns

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift game session queue resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::gamesessionqueue/<queue name>`. Queues can be located in any Region. Queues are used to start new Amazon GameLift-hosted game sessions for matches that are created with this matchmaking configuration. This property is not set when `FlexMatchMode` is set to `STANDALONE`.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `[a-zA-Z0-9:/-]+`

Required: No

Name

A unique identifier for the matchmaking configuration. This name is used to identify the configuration associated with a matchmaking request or ticket.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]*`

Required: No

NotificationTarget

An SNS topic ARN that is set up to receive matchmaking notifications.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 300.

Pattern: `[a-zA-Z0-9:_/-]*(.fifo)?`

Required: No

RequestTimeoutSeconds

The maximum duration, in seconds, that a matchmaking ticket can remain in process before timing out. Requests that fail due to timing out can be resubmitted as needed.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 43200.

Required: No

RuleSetArn

The Amazon Resource Name (ARN) associated with the GameLift matchmaking rule set resource that this configuration uses.

Type: String

Pattern: `^arn:.*:matchmakingruleset\/[a-zA-Z0-9-\.]*`

Required: No

RuleSetName

A unique identifier for the matchmaking rule set to use with this configuration. A matchmaking configuration can only use rule sets that are defined in the same Region.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MatchmakingRuleSet

Set of rule statements, used with FlexMatch, that determine how to build your player matches. Each rule set describes a type of group to be created and defines the parameters for acceptable player matches.

A rule set may define the following elements for a match. For detailed information and examples showing how to construct a rule set, see Build a FlexMatch rule set.

- Teams -- Required. A rule set must define one or multiple teams for the match and set minimum and maximum team sizes. For example, a rule set might describe a 4x4 match that requires all eight slots to be filled.
- Player attributes -- Optional. These attributes specify a set of player characteristics to evaluate when looking for a match. Matchmaking requests that use a rule set with player attributes must provide the corresponding attribute values. For example, an attribute might specify a player's skill or level.
- Rules -- Optional. Rules define how to evaluate potential players for a match based on player attributes. A rule might specify minimum requirements for individual players, teams, or entire matches. For example, a rule might require each player to meet a certain skill level, each team to have at least one player in a certain role, or the match to have a minimum average skill level. or may describe an entire group--such as all teams must be evenly matched or have at least one player in a certain role.
- Expansions -- Optional. Expansions allow you to relax the rules after a period of time when no acceptable matches are found. This feature lets you balance getting players into games in a reasonable amount of time instead of making them wait indefinitely for the best possible match. For example, you might use an expansion to increase the maximum skill variance between players after 30 seconds.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

RuleSetBody

A collection of matchmaking rules, formatted as a JSON string. Comments are not allowed in JSON, but most elements support a description field.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 65535.

Required: Yes

CreationTime

A time stamp indicating when this data object was created. Format is a number expressed in Unix time as milliseconds (for example "1469498468.057").

Type: Timestamp

Required: No

RuleSetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift matchmaking rule set resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::matchmakingruleset/<ruleset name>`. In a GameLift rule set ARN, the resource ID matches the *RuleSetName* value.

Type: String

Pattern: `^arn:.*:matchmakingruleset\/[a-zA-Z0-9-\.]*`

Required: No

RuleSetName

A unique identifier for the matchmaking rule set

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

MatchmakingTicket

Ticket generated to track the progress of a matchmaking request. Each ticket is uniquely identified by a ticket ID, supplied by the requester, when creating a matchmaking request.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

ConfigurationArn

The Amazon Resource Name (ARN) associated with the GameLift matchmaking configuration resource that is used with this ticket.

Type: String

Pattern: `^arn:.*:matchmakingconfiguration\/[a-zA-Z0-9-\.]*`

Required: No

ConfigurationName

Name of the matchmaking configuration that is used with this ticket. Matchmaking configurations determine how players are grouped into a match and how a new game session is created for the match.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]*`

Required: No

EndTime

Time stamp indicating when the matchmaking request stopped being processed due to successful completion, timeout, or cancellation. Format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

EstimatedWaitTime

Average amount of time (in seconds) that players are currently waiting for a match. If there is not enough recent data, this property may be empty.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

GameSessionConnectionInfo

Connection information for a new game session. Once a match is made, the FlexMatch engine creates a new game session for it. This information is added to the matchmaking ticket, which you can be retrieve by calling DescribeMatchmaking .

Type: GameSessionConnectionInfo object

Required: No

Players

A set of `Player` objects, each representing a player to find matches for. Players are identified by a unique player ID and may include latency data for use during matchmaking. If the ticket is in status `COMPLETED`, the `Player` objects include the team the players were assigned to in the resulting match.

Type: Array of Player objects

Required: No

StartTime

Time stamp indicating when this matchmaking request was received. Format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

Status

Current status of the matchmaking request.

- **QUEUED** -- The matchmaking request has been received and is currently waiting to be processed.
- **SEARCHING** -- The matchmaking request is currently being processed.
- **REQUIRES_ACCEPTANCE** -- A match has been proposed and the players must accept the match. This status is used only with requests that use a matchmaking configuration with a player acceptance requirement.
- **PLACING** -- The FlexMatch engine has matched players and is in the process of placing a new game session for the match.
- **COMPLETED** -- Players have been matched and a game session is ready to host the players. A ticket in this state contains the necessary connection information for players.
- **FAILED** -- The matchmaking request was not completed.
- **CANCELLED** -- The matchmaking request was canceled. This may be the result of a `StopMatchmaking` operation or a proposed match that one or more players failed to accept.
- **TIMED_OUT** -- The matchmaking request was not successful within the duration specified in the matchmaking configuration.

> **Note**
>
> Matchmaking requests that fail to successfully complete (statuses FAILED, CANCELLED, TIMED_OUT) can be resubmitted as new requests with new ticket IDs.

Type: String

Valid Values: `CANCELLED | COMPLETED | FAILED | PLACING | QUEUED | REQUIRES_ACCEPTANCE | SEARCHING | TIMED_OUT`

Required: No

StatusMessage

Additional information about the current status.

Type: String

Required: No

StatusReason

Code to explain the current status. For example, a status reason may indicate when a ticket has returned to `SEARCHING` status after a proposed match fails to receive player acceptances.

Type: String

Required: No

TicketId

A unique identifier for a matchmaking ticket.

Type: String

Length Constraints: Maximum length of 128.

Pattern: `[a-zA-Z0-9-\.]*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

PlacedPlayerSession

Information about a player session. This object contains only the player ID and player session ID. To retrieve full details on a player session, call DescribePlayerSessions with the player session ID.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

PlayerId

A unique identifier for a player that is associated with this player session.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

PlayerSessionId

A unique identifier for a player session.

Type: String

Pattern: `^psess-\S+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2

- AWS SDK for Ruby V3

Player

Represents a player in matchmaking. When starting a matchmaking request, a player has a player ID, attributes, and may have latency data. Team information is added after a match has been successfully completed.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

LatencyInMs

A set of values, expressed in milliseconds, that indicates the amount of latency that a player experiences when connected to @aws; Regions. If this property is present, FlexMatch considers placing the match only in Regions for which latency is reported.

If a matchmaker has a rule that evaluates player latency, players must report latency in order to be matched. If no latency is reported in this scenario, FlexMatch assumes that no Regions are available to the player and the ticket is not matchable.

Type: String to integer map

Key Length Constraints: Minimum length of 1.

Valid Range: Minimum value of 1.

Required: No

PlayerAttributes

A collection of key:value pairs containing player information for use in matchmaking. Player attribute keys must match the *playerAttributes* used in a matchmaking rule set. Example: `"PlayerAttributes": {"skill": {"N": "23"}, "gameMode": {"S": "deathmatch"}}`.

You can provide up to 10 `PlayerAttributes`.

Type: String to AttributeValue object map

Key Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

PlayerId

A unique identifier for a player

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Team

Name of the team that the player is assigned to in a match. Team names are defined in a matchmaking rule set.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

PlayerLatency

Regional latency information for a player, used when requesting a new game session. This value indicates the amount of time lag that exists when the player is connected to a fleet in the specified Region. The relative difference between a player's latency values for multiple Regions are used to determine which fleets are best suited to place a new game session for the player.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

LatencyInMilliseconds

Amount of time that represents the time lag experienced by the player when connected to the specified Region.

Type: Float

Required: No

PlayerId

A unique identifier for a player associated with the latency data.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

RegionIdentifier

Name of the Region that is associated with the latency value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

PlayerLatencyPolicy

Sets a latency cap for individual players when placing a game session. With a latency policy in force, a game session cannot be placed in a fleet location where a player reports latency higher than the cap. Latency policies are used only with placement request that provide player latency information. Player latency policies can be stacked to gradually relax latency requirements over time.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

MaximumIndividualPlayerLatencyMilliseconds

The maximum latency value that is allowed for any player, in milliseconds. All policies must have a value set for this property.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

PolicyDurationSeconds

The length of time, in seconds, that the policy is enforced while placing a new game session. A null value for this property means that the policy is enforced until the queue times out.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

PlayerSession

Represents a player session. Player sessions are created either for a specific game session, or as part of a game session placement or matchmaking request. A player session can represents a reserved player slot in a game session (when status is RESERVED) or actual player activity in a game session (when status is ACTIVE). A player session object, including player data, is automatically passed to a game session when the player connects to the game session and is validated. After the game session ends, player sessions information is retained for 30 days and then removed.

Related actions

All APIs by task

Contents

> **Note**
>
> In the following list, the required parameters are described first.

CreationTime

A time stamp indicating when this data object was created. Format is a number expressed in Unix time as milliseconds (for example "1469498468.057").

Type: Timestamp

Required: No

DnsName

The DNS identifier assigned to the instance that is running the game session. Values have the following format:

- TLS-enabled fleets: <unique identifier>.<region identifier>.amazongamelift.com.
- Non-TLS-enabled fleets: ec2-<unique identifier>.compute.amazonaws.com. (See Amazon EC2 Instance IP Addressing.)

When connecting to a game session that is running on a TLS-enabled fleet, you must use the DNS name, not the IP address.

Type: String

Required: No

FleetArn

The Amazon Resource Name (ARN) associated with the GameLift fleet that the player's game session is running on.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

Required: No

FleetId

A unique identifier for the fleet that the player's game session is running on.

Type: String

Pattern: `^fleet-\S+`

Required: No

GameSessionId

A unique identifier for the game session that the player session is connected to.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

IpAddress

The IP address of the game session. To connect to a Amazon GameLift game server, an app needs both the IP address and port number.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[0-9A-Fa-f\:\.]+`

Required: No

PlayerData

Developer-defined information related to a player. Amazon GameLift does not use this data, so it can be formatted as needed for use in the game.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

PlayerId

A unique identifier for a player that is associated with this player session.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

PlayerSessionId

A unique identifier for a player session.

Type: String

Pattern: `^psess-\S+`

Required: No

Port

Port number for the game session. To connect to a Amazon GameLift server process, an app needs both the IP address and port number.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 60000.

Required: No

Status

Current status of the player session.

Possible player session statuses include the following:

- **RESERVED** -- The player session request has been received, but the player has not yet connected to the server process and/or been validated.
- **ACTIVE** -- The player has been validated by the server process and is currently connected.
- **COMPLETED** -- The player connection has been dropped.
- **TIMEDOUT** -- A player session request was received, but the player did not connect and/or was not validated within the timeout limit (60 seconds).

Type: String

Valid Values: `RESERVED | ACTIVE | COMPLETED | TIMEDOUT`

Required: No

TerminationTime

A time stamp indicating when this data object was terminated. Format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

PriorityConfiguration

Custom prioritization settings for use by a game session queue when placing new game sessions with available game servers. When defined, this configuration replaces the default FleetIQ prioritization process, which is as follows:

- If player latency data is included in a game session request, destinations and locations are prioritized first based on lowest average latency (1), then on lowest hosting cost (2), then on destination list order (3), and finally on location (alphabetical) (4). This approach ensures that the queue's top priority is to place game sessions where average player latency is lowest, and--if latency is the same--where the hosting cost is less, etc.
- If player latency data is not included, destinations and locations are prioritized first on destination list order (1), and then on location (alphabetical) (2). This approach ensures that the queue's top priority is to place game sessions on the first destination fleet listed. If that fleet has multiple locations, the game session is placed on the first location (when listed alphabetically).

Changing the priority order will affect how game sessions are placed.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

LocationOrder

The prioritization order to use for fleet locations, when the `PriorityOrder` property includes `LOCATION`. Locations are identified by AWS Region codes such as `us-west-2`. Each location can only be listed once.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

PriorityOrder

The recommended sequence to use when prioritizing where to place new game sessions. Each type can only be listed once.

- `LATENCY` -- FleetIQ prioritizes locations where the average player latency (provided in each game session request) is lowest.
- `COST` -- FleetIQ prioritizes destinations with the lowest current hosting costs. Cost is evaluated based on the location, instance type, and fleet type (Spot or On-Demand) for each destination in the queue.
- `DESTINATION` -- FleetIQ prioritizes based on the order that destinations are listed in the queue configuration.
- `LOCATION` -- FleetIQ prioritizes based on the provided order of locations, as defined in `LocationOrder`.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 4 items.

Valid Values: `LATENCY | COST | DESTINATION | LOCATION`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ResourceCreationLimitPolicy

A policy that puts limits on the number of game sessions that a player can create within a specified span of time. With this policy, you can control players' ability to consume available resources.

The policy is evaluated when a player tries to create a new game session. On receiving a `CreateGameSession` request, Amazon GameLift checks that the player (identified by `CreatorId`) has created fewer than game session limit in the specified time period.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

NewGameSessionsPerCreator

A policy that puts limits on the number of game sessions that a player can create within a specified span of time. With this policy, you can control players' ability to consume available resources.

The policy is evaluated when a player tries to create a new game session. On receiving a `CreateGameSession` request, Amazon GameLift checks that the player (identified by `CreatorId`) has created fewer than game session limit in the specified time period.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

PolicyPeriodInMinutes

The time span used in evaluating the resource creation limit policy.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RoutingStrategy

The routing configuration for a fleet alias.

Related actions

All APIs by task

Contents

> **Note**
>
> In the following list, the required parameters are described first.

FleetId

A unique identifier for the fleet that the alias points to. This value is the fleet ID, not the fleet ARN.

Type: String

Pattern: `^fleet-\S+`

Required: No

Message

The message text to be used with a terminal routing strategy.

Type: String

Required: No

Type

The type of routing strategy for the alias.

Possible routing types include the following:

- **SIMPLE** - The alias resolves to one specific fleet. Use this type when routing to active fleets.
- **TERMINAL** - The alias does not resolve to a fleet but instead can be used to display a message to the user. A terminal alias throws a TerminalRoutingStrategyException with the message embedded.

Type: String

Valid Values: `SIMPLE | TERMINAL`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

RuntimeConfiguration

A collection of server process configurations that describe the set of processes to run on each instance in a fleet. Server processes run either an executable in a custom game build or a Realtime Servers script. Amazon GameLift launches the configured processes, manages their life cycle, and replaces them as needed. Each instance checks regularly for an updated runtime configuration.

A Amazon GameLift instance is limited to 50 processes running concurrently. To calculate the total number of processes in a runtime configuration, add the values of the `ConcurrentExecutions` parameter for each server process. Learn more about Running Multiple Processes on a Fleet.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

GameSessionActivationTimeoutSeconds

The maximum amount of time (in seconds) allowed to launch a new game session and have it report ready to host players. During this time, the game session is in status `ACTIVATING`. If the game session does not become active before the timeout, it is ended and the game session status is changed to `TERMINATED`.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 600.

Required: No

MaxConcurrentGameSessionActivations

The number of game sessions in status `ACTIVATING` to allow on an instance. This setting limits the instance resources that can be used for new game activations at any one time.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 2147483647.

Required: No

ServerProcesses

A collection of server process configurations that identify what server processes to run on each instance in a fleet.

Type: Array of ServerProcess objects

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

S3Location

The location in Amazon S3 where build or script files are stored for access by Amazon GameLift.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

Bucket

An Amazon S3 bucket identifier. Thename of the S3 bucket.

> **Note**
>
> Amazon GameLift doesn't support uploading from Amazon S3 buckets with names that contain a dot (.).

Type: String

Length Constraints: Minimum length of 1.

Required: No

Key

The name of the zip file that contains the build files or script files.

Type: String

Length Constraints: Minimum length of 1.

Required: No

ObjectVersion

The version of the file, if object versioning is turned on for the bucket. Amazon GameLift uses this information when retrieving files from an S3 bucket that you own. Use this parameter to specify a specific version of the file. If not set, the latest version of the file is retrieved.

Type: String

Length Constraints: Minimum length of 1.

Required: No

RoleArn

The Amazon Resource Name (ARN) for an IAM role that allows Amazon GameLift to access the S3 bucket.

Type: String

Length Constraints: Minimum length of 1.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ScalingPolicy

Rule that controls how a fleet is scaled. Scaling policies are uniquely identified by the combination of name and fleet ID.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

ComparisonOperator

Comparison operator to use when measuring a metric against the threshold value.

Type: String

Valid Values: `GreaterThanOrEqualToThreshold | GreaterThanThreshold | LessThanThreshold | LessThanOrEqualToThreshold`

Required: No

EvaluationPeriods

Length of time (in minutes) the metric must be at or beyond the threshold before a scaling event is triggered.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

FleetArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. Format is `arn:aws:gamelift:<region>::fleet/fleet-a1234567-b8c9-0d1e-2fa3-b45c6d7e8912`.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

Required: No

FleetId

A unique identifier for the fleet that is associated with this scaling policy.

Type: String

Pattern: `^fleet-\S+`

Required: No

Location

The fleet location.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^[A-Za-z0-9\-]+`

Required: No

MetricName

Name of the Amazon GameLift-defined metric that is used to trigger a scaling adjustment. For detailed descriptions of fleet metrics, see Monitor Amazon GameLift with Amazon CloudWatch.

- **ActivatingGameSessions** -- Game sessions in the process of being created.
- **ActiveGameSessions** -- Game sessions that are currently running.
- **ActiveInstances** -- Fleet instances that are currently running at least one game session.
- **AvailableGameSessions** -- Additional game sessions that fleet could host simultaneously, given current capacity.
- **AvailablePlayerSessions** -- Empty player slots in currently active game sessions. This includes game sessions that are not currently accepting players. Reserved player slots are not included.
- **CurrentPlayerSessions** -- Player slots in active game sessions that are being used by a player or are reserved for a player.
- **IdleInstances** -- Active instances that are currently hosting zero game sessions.

- **PercentAvailableGameSessions** -- Unused percentage of the total number of game sessions that a fleet could host simultaneously, given current capacity. Use this metric for a target-based scaling policy.
- **PercentIdleInstances** -- Percentage of the total number of active instances that are hosting zero game sessions.
- **QueueDepth** -- Pending game session placement requests, in any queue, where the current fleet is the top-priority destination.
- **WaitTime** -- Current wait time for pending game session placement requests, in any queue, where the current fleet is the top-priority destination.

Type: String

Valid Values: `ActivatingGameSessions | ActiveGameSessions | ActiveInstances | AvailableGameSessions | AvailablePlayerSessions | CurrentPlayerSessions | IdleInstances | PercentAvailableGameSessions | PercentIdleInstances | QueueDepth | WaitTime | ConcurrentActivatableGameSessions`

Required: No

Name

A descriptive label that is associated with a fleet's scaling policy. Policy names do not need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

PolicyType

The type of scaling policy to create. For a target-based policy, set the parameter *MetricName* to 'PercentAvailableGameSessions' and specify a *TargetConfiguration*. For a rule-based policy set the following parameters: *MetricName*, *ComparisonOperator*, *Threshold*, *EvaluationPeriods*, *ScalingAdjustmentType*, and *ScalingAdjustment*.

Type: String

Valid Values: `RuleBased | TargetBased`

Required: No

ScalingAdjustment

Amount of adjustment to make, based on the scaling adjustment type.

Type: Integer

Required: No

ScalingAdjustmentType

The type of adjustment to make to a fleet's instance count.

- **ChangeInCapacity** -- add (or subtract) the scaling adjustment value from the current instance count. Positive values scale up while negative values scale down.
- **ExactCapacity** -- set the instance count to the scaling adjustment value.
- **PercentChangeInCapacity** -- increase or reduce the current instance count by the scaling adjustment, read as a percentage. Positive values scale up while negative values scale down.

Type: String

Valid Values: `ChangeInCapacity | ExactCapacity | PercentChangeInCapacity`

Required: No

Status

Current status of the scaling policy. The scaling policy can be in force only when in an `ACTIVE` status. Scaling policies can be suspended for individual fleets. If the policy is suspended for a fleet, the policy status does not change.

- **ACTIVE** -- The scaling policy can be used for auto-scaling a fleet.
- **UPDATE_REQUESTED** -- A request to update the scaling policy has been received.
- **UPDATING** -- A change is being made to the scaling policy.
- **DELETE_REQUESTED** -- A request to delete the scaling policy has been received.
- **DELETING** -- The scaling policy is being deleted.
- **DELETED** -- The scaling policy has been deleted.
- **ERROR** -- An error occurred in creating the policy. It should be removed and recreated.

Type: String

Valid Values: `ACTIVE | UPDATE_REQUESTED | UPDATING | DELETE_REQUESTED | DELETING | DELETED | ERROR`

Required: No

TargetConfiguration

An object that contains settings for a target-based scaling policy.

Type: TargetConfiguration object

Required: No

Threshold

Metric value used to trigger a scaling event.

Type: Double

Required: No

UpdateStatus

The current status of the fleet's scaling policies in a requested fleet location. The status `PENDING_UPDATE` indicates that an update was requested for the fleet but has not yet been completed for the location.

Type: String

Valid Values: `PENDING_UPDATE`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Script

Properties describing a Realtime script.

Related actions

All APIs by task

Contents

> **Note**
>
> In the following list, the required parameters are described first.

CreationTime

A time stamp indicating when this data object was created. Format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

Name

A descriptive label that is associated with a script. Script names don't need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

ScriptArn

The Amazon Resource Name (ARN) that is assigned to a Amazon GameLift script resource and uniquely identifies it. ARNs are unique across all Regions. In a GameLift script ARN, the resource ID matches the *ScriptId* value.

Type: String

Pattern: `^arn:.*:script\/script-\S+`

Required: No

ScriptId

A unique identifier for the Realtime script

Type: String

Pattern: `^script-\S+`

Required: No

SizeOnDisk

The file size of the uploaded Realtime script, expressed in bytes. When files are uploaded from an S3 location, this value remains at "0".

Type: Long

Valid Range: Minimum value of 1.

Required: No

StorageLocation

The location of the Amazon S3 bucket where a zipped file containing your Realtime scripts is stored. The storage location must specify the Amazon S3 bucket name, the zip file name (the "key"), and a role ARN that allows Amazon GameLift to access the Amazon S3 storage location. The S3 bucket must be in the same Region where you want to create a new script. By default, Amazon GameLift uploads the latest version of the zip file; if you have S3 object versioning turned on, you can use the `ObjectVersion` parameter to specify an earlier version.

Type: S3Location object

Required: No

Version

Version information associated with a build or script. Version strings don't need to be unique.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ServerProcess

A set of instructions for launching server processes on each instance in a fleet. Server processes run either an executable in a custom game build or a Realtime Servers script. Server process configurations are part of a fleet's runtime configuration.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

ConcurrentExecutions

The number of server processes using this configuration that run concurrently on each instance.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

LaunchPath

The location of a game build executable or Realtime script. Game builds and Realtime scripts are installed on instances at the root:

- Windows (custom game builds only): `C:\game`. Example: "`C:\game\MyGame\server.exe`"
- Linux: `/local/game`. Examples: "`/local/game/MyGame/server.exe`" or "`/local/game/MyRealtimeScript.js`"

> **Note**
>
> Amazon GameLift doesn't support the use of setup scripts that launch the game executable. For custom game builds, this parameter must indicate the executable that calls the server SDK operations `initSDK()` and `ProcessReady()`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[A-Za-z0-9_:.+\/\\\- ]+`

Required: Yes

Parameters

An optional list of parameters to pass to the server executable or Realtime script on launch.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `[A-Za-z0-9_:.+\/\\\- =@{},?'\[\]"]+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

Tag

A label that you can assign to a Amazon GameLift resource.

Learn more

Tagging AWS Resources in the *AWS General Reference*

AWS Tagging Strategies

Related actions

All APIs by task

Contents

> **Note**
> In the following list, the required parameters are described first.

Key

The key for a developer-defined key value pair for tagging an AWS resource.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Required: Yes

Value

The value for a developer-defined key value pair for tagging an AWS resource.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TargetConfiguration

Settings for a target-based scaling policy. A target-based policy tracks a particular fleet metric specifies a target value for the metric. As player usage changes, the policy triggers Amazon GameLift to adjust capacity so that the metric returns to the target value. The target configuration specifies settings as needed for the target based policy, including the target value.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

TargetValue

Desired value to use with a target-based scaling policy. The value must be relevant for whatever metric the scaling policy is using. For example, in a policy using the metric PercentAvailableGameSessions, the target value should be the preferred size of the fleet's buffer (the percent of capacity that should be idle and ready for new game sessions).

Type: Double

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

TargetTrackingConfiguration

This data type is used with the Amazon GameLift FleetIQ and game server groups.

Settings for a target-based scaling policy as part of a GameServerGroupAutoScalingPolicy . These settings are used to create a target-based policy that tracks the Amazon GameLift FleetIQ metric `"PercentUtilizedGameServers"` and specifies a target value for the metric. As player usage changes, the policy triggers to adjust the game server group capacity so that the metric returns to the target value.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

TargetValue

Desired value to use with a game server group target-based scaling policy.

Type: Double

Valid Range: Minimum value of 0.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

VpcPeeringAuthorization

Represents an authorization for a VPC peering connection between the VPC for an Amazon GameLift fleet and another VPC on an account you have access to. This authorization must exist and be valid for the peering connection to be established. Authorizations are valid for 24 hours after they are issued.

Related actions

All APIs by task

Contents

> **Note**
>
> In the following list, the required parameters are described first.

CreationTime

Time stamp indicating when this authorization was issued. Format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

ExpirationTime

Time stamp indicating when this authorization expires (24 hours after issuance). Format is a number expressed in Unix time as milliseconds (for example `"1469498468.057"`).

Type: Timestamp

Required: No

GameLiftAwsAccountId

A unique identifier for the AWS account that you use to manage your Amazon GameLift fleet. You can find your Account ID in the AWS Management Console under account settings.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

PeerVpcAwsAccountId

The authorization's peer VPC AWS account ID.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

PeerVpcId

A unique identifier for a VPC with resources to be accessed by your Amazon GameLift fleet. The VPC must be in the same Region as your fleet. To look up a VPC ID, use the VPC Dashboard in the AWS Management Console. Learn more about VPC peering in VPC Peering with Amazon GameLift Fleets.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

VpcPeeringConnection

Represents a peering connection between a VPC on one of your AWS accounts and the VPC for your Amazon GameLift fleets. This record may be for an active peering connection or a pending connection that has not yet been established.

Related actions

All APIs by task

Contents

> **Note**
>
> In the following list, the required parameters are described first.

FleetArn

The Amazon Resource Name (ARN) associated with the GameLift fleet resource for this connection.

Type: String

Pattern: `^arn:.*:fleet\/fleet-\S+`

Required: No

FleetId

A unique identifier for the fleet. This ID determines the ID of the Amazon GameLift VPC for your fleet.

Type: String

Pattern: `^fleet-\S+`

Required: No

GameLiftVpcId

A unique identifier for the VPC that contains the Amazon GameLift fleet for this connection. This VPC is managed by Amazon GameLift and does not appear in your AWS account.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

IpV4CidrBlock

CIDR block of IPv4 addresses assigned to the VPC peering connection for the GameLift VPC. The peered VPC also has an IPv4 CIDR block associated with it; these blocks cannot overlap or the peering connection cannot be created.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

PeerVpcId

A unique identifier for a VPC with resources to be accessed by your Amazon GameLift fleet. The VPC must be in the same Region as your fleet. To look up a VPC ID, use the VPC Dashboard in the AWS Management Console. Learn more about VPC peering in VPC Peering with Amazon GameLift Fleets.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Status

The status information about the connection. Status indicates if a connection is pending, successful, or failed.

Type: VpcPeeringConnectionStatus object

Required: No

VpcPeeringConnectionId

A unique identifier that is automatically assigned to the connection record. This ID is referenced in VPC peering connection events, and is used when deleting a connection.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

VpcPeeringConnectionStatus

Represents status information for a VPC peering connection. Status codes and messages are provided from EC2 (see VpcPeeringConnectionStateReason). Connection status information is also communicated as a fleet event.

Contents

> **Note**
>
> In the following list, the required parameters are described first.

Code

Code indicating the status of a VPC peering connection.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

Message

Additional messaging associated with the connection status.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- AWS SDK for C++
- AWS SDK for Go

- AWS SDK for Java V2
- AWS SDK for Ruby V3

Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see Signing AWS API requests in the *IAM User Guide*.

Action

The action to be performed.

Type: string

Required: Yes

Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: *access_key*/*YYYYMMDD*/*region*/*service*/aws4_request.

For more information, see Create a signed AWS API request in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-Date

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: `20120325T120000Z`.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see Elements of an AWS API request signature in the *IAM User Guide*.

Type: string

Required: Conditional

X-Amz-Security-Token

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS STS, see AWS services that work with IAM in the *IAM User Guide*.

Condition: If you're using temporary security credentials from AWS STS, you must include the security token.

Type: string

Required: Conditional

X-Amz-Signature

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-SignedHeaders

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see Create a signed AWS API request in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

Common Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 400

InternalFailure

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

InvalidAction

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

InvalidClientTokenId

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

NotAuthorized

You do not have permission to perform this action.

HTTP Status Code: 400

OptInRequired

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

RequestExpired

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

ServiceUnavailable

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationError

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400