Amazon GameLift Service: API Reference
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Welcome

Amazon GameLift provides a range of multiplayer game hosting solutions. As a fully managed service, GameLift helps you do the following:

- Set up EC2 computing resources and use GameLift FleetIQ to deploy your game servers on low-cost, reliable Spot Instances.
- Track game server availability and route players into game sessions to minimize latency.
- Automatically scale your resources to meet player demand and manage costs.
- Optionally add FlexMatch matchmaking.

With GameLift as a managed service, you have the option to deploy your custom game server or use Amazon GameLift Realtime Servers to quickly set up lightweight game servers for your game. Realtime Servers provides an efficient game server framework with core Amazon GameLift infrastructure already built in.

Now in Public Preview

Use GameLift FleetIQ as a standalone feature with EC2 instances and Auto Scaling groups. GameLift FleetIQ provides optimizations that make low-cost Spot Instances viable for game hosting. This extension of GameLift FleetIQ gives you access to these optimizations while managing your EC2 instances and Auto Scaling groups within your own AWS account.

Get Amazon GameLift Tools and Resources

This reference guide describes the low-level service API for Amazon GameLift and provides links to language-specific SDK reference topics. See also Amazon GameLift Tools and Resources.

API Summary

The Amazon GameLift service API includes two key sets of actions:

- **Manage game sessions and player access** - Integrate this functionality into game client services in order to create new game sessions, retrieve information on existing game sessions; reserve a player slot in a game session, request matchmaking, etc.

- **Configure and manage game server resources** - Manage your Amazon GameLift hosting resources, including builds, scripts, fleets, queues, and aliases. Set up matchmakers, configure auto-scaling, retrieve game logs, and get hosting and game metrics.

Task-based list of API actions

This document was last published on April 3, 2020.
Actions

The following actions are supported:

- AcceptMatch (p. 5)
- ClaimGameServer (p. 8)
- CreateAlias (p. 13)
- CreateBuild (p. 17)
- CreateFleet (p. 23)
- CreateGameServerGroup (p. 35)
- CreateGameSession (p. 44)
- CreateGameSessionQueue (p. 50)
- CreateMatchmakingConfiguration (p. 55)
- CreateMatchmakingRuleSet (p. 61)
- CreatePlayerSession (p. 64)
- CreatePlayerSessions (p. 67)
- CreateScript (p. 71)
- CreateVpcPeeringAuthorization (p. 77)
- CreateVpcPeeringConnection (p. 82)
- DeleteAlias (p. 86)
- DeleteBuild (p. 88)
- DeleteFleet (p. 91)
- DeleteGameServerGroup (p. 94)
- DeleteGameSessionQueue (p. 98)
- DeleteMatchmakingConfiguration (p. 100)
- DeleteMatchmakingRuleSet (p. 102)
- DeleteScalingPolicy (p. 104)
- DeleteScript (p. 107)
- DeleteVpcPeeringAuthorization (p. 110)
- DeleteVpcPeeringConnection (p. 112)
- DeregisterGameServer (p. 114)
- DescribeAlias (p. 117)
- DescribeBuild (p. 120)
- DescribeEC2InstanceLimits (p. 123)
- DescribeFleetAttributes (p. 126)
- DescribeFleetCapacity (p. 132)
- DescribeFleetEvents (p. 136)
- DescribeFleetPortSettings (p. 141)
- DescribeFleetUtilization (p. 144)
- DescribeGameServer (p. 149)
- DescribeGameServerGroup (p. 153)
- DescribeGameSessionDetails (p. 157)
- DescribeGameSessionPlacement (p. 161)
- DescribeGameSessionQueues (p. 164)
- DescribeGameSessions (p. 167)
- DescribeInstances (p. 171)
- DescribeMatchmaking (p. 175)
- DescribeMatchmakingConfigurations (p. 178)
- DescribeMatchmakingRuleSets (p. 182)
- DescribePlayerSessions (p. 185)
- DescribeRuntimeConfiguration (p. 189)
- DescribeScalingPolicies (p. 193)
- DescribeScript (p. 198)
- DescribeVpcPeeringAuthorizations (p. 201)
- DescribeVpcPeeringConnections (p. 203)
- GetGameSessionLogUrl (p. 206)
- GetInstanceAccess (p. 209)
- ListAliases (p. 214)
- ListBuilds (p. 217)
- ListFleets (p. 222)
- ListGameServerGroups (p. 226)
- ListGameServers (p. 229)
- ListScripts (p. 232)
- ListTagsForResource (p. 236)
- PutScalingPolicy (p. 239)
- RegisterGameServer (p. 247)
- RequestUploadCredentials (p. 252)
- ResolveAlias (p. 255)
- ResumeGameServerGroup (p. 258)
- SearchGameSessions (p. 262)
- StartFleetActions (p. 271)
- StartGameSessionPlacement (p. 274)
- StartMatchBackfill (p. 280)
- StartMatchmaking (p. 284)
- StopFleetActions (p. 289)
- StopGameSessionPlacement (p. 292)
- StopMatchmaking (p. 295)
- SuspendGameServerGroup (p. 297)
- TagResource (p. 301)
- UntagResource (p. 304)
- UpdateAlias (p. 307)
- UpdateBuild (p. 310)
- UpdateFleetAttributes (p. 314)
- UpdateFleetCapacity (p. 318)
- UpdateFleetPortSettings (p. 322)
- UpdateGameServer (p. 326)
- UpdateGameServerGroup (p. 331)
- UpdateGameSession (p. 336)
- UpdateGameSessionQueue (p. 340)
- UpdateMatchmakingConfiguration (p. 343)
• UpdateRuntimeConfiguration (p. 348)
• UpdateScript (p. 351)
• ValidateMatchmakingRuleSet (p. 356)
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 the ticket. Acceptances are only valid for tickets when they are in this status; all other acceptances result in an error.

To register acceptance, specify the ticket ID, a response, and one or more players. Once all players have registered acceptance, the matchmaking tickets advance to status PLACING, where a new game session is created for the match.

If any player rejects the match, or if acceptances are not received before a specified timeout, the proposed match is dropped. The matchmaking tickets are then handled in one of two ways: For tickets where one or more players rejected the match, the ticket status is returned to SEARCHING to find a new match. For tickets where one or more players failed to respond, the ticket status is set to CANCELLED, and processing is terminated. A new matchmaking request for these players can be submitted as needed.

Learn more

Add FlexMatch to a Game Client

FlexMatch Events Reference

Related operations

- StartMatchmaking (p. 284)
- DescribeMatchmaking (p. 175)
- StopMatchmaking (p. 295)
- AcceptMatch (p. 5)
- StartMatchBackfill (p. 280)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**AcceptanceType (p. 5)**

- Player response to the proposed match.
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 (p. 460).

**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**

A service resource associated with the request could not be found. 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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ClaimGameServer

This operation is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

Locates an available game server and temporarily reserves it to host gameplay and players. This operation is called by a game client or client service (such as a matchmaker) to request hosting resources for a new game session. In response, GameLift FleetIQ searches for an available game server in the specified game server group. It then places the game server in CLAIMED status for 60 seconds. Finally, it returns connection information back to the requester so that players can connect to the game server.

You have two options for claiming a game server:

- Request the best available game server. With this option, you provide a game server group ID only. This request prompts GameLift FleetIQ to search in the specified group for an available game server. GameLift FleetIQ attempts to select only from game servers that are viable for game hosting and also consolidates gameplay on as few instances as possible to optimize automatic scaling.

- Request a specific game server. With this option, you provide a specific game server ID as well as the game server group ID. This type of request bypasses the GameLift FleetIQ placement optimization and may place new game sessions with game servers that are more likely to be interrupted. In addition, this option might fail if the requested game server is unavailable.

To claim a game server, identify a game server group and (optionally) a game server ID. Your game might require that game data be provided to the game server at the start of a game, such as a game map or player information. If so, you can provide it in your claim request.

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 allows the game server to be prompted to update its status to UTILIZED (using UpdateGameServer (p. 326)). 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 instance that the game server is running on is flagged as draining

Learn more

GameLift FleetIQ Guide

Related operations

- RegisterGameServer (p. 247)
- ListGameServers (p. 229)
- ClaimGameServer (p. 8)
- DescribeGameServer (p. 149)
- UpdateGameServer (p. 326)
- DeregisterGameServer (p. 114)
Request Syntax

```json
{
    "GameServerData": "string",
    "GameServerGroupName": "string",
    "GameServerId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**GameServerGroupName** (p. 9)

An identifier for the game server group. When claiming a specific game server, this is the game server group whether the game server is located. When requesting that GameLift FleetIQ locate an available game server, this is the game server group to search in. You can use either the GameServerGroup (p. 389) 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

**GameServerData** (p. 9)

A set of custom game server properties, formatted as a single string value, to be passed to the claimed game server.

Type: String


Pattern: `.\s.*`

Required: No

**GameServerId** (p. 9)

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

Type: String


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

Required: No
Response Syntax

```json
{
    "GameServer": {
        "ClaimStatus": "string",
        "ConnectionInfo": "string",
        "CustomSortKey": "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 (p. 10)**

Object that describes the newly claimed game server resource.

Type: [GameServer (p. 386)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors (p. 460)](#).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.
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

Example

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, 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

```json
{
   "GameServerGroupName": "MegaFrogServers_NA",
   "IdempotencyToken": "12345678"
}
```

CLI command:

```bash
aws fiesta claim-game-server \
   --game-server-group-name MegaFrogServers_NA
```

Sample Response

```json
{
   "GameServer": {
      "ClaimStatus": "CLAIMED",
      "ConnectionInfo": "192.0.2.0.80",
      "CustomSortKey": "",
      "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:
See Also

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

- CreateAlias (p. 13)
- ListAliases (p. 214)
- DescribeAlias (p. 117)
- UpdateAlias (p. 307)
- DeleteAlias (p. 86)
- ResolveAlias (p. 255)

Request Syntax

```json
{
    "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 (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**Name (p. 13)**

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

Type: String

Pattern: .*\S.*

Required: Yes

**RoutingStrategy (p. 13)**

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

Type: RoutingStrategy (p. 437) object

Required: Yes

**Description (p. 13)**

A human-readable description of the alias.

Type: String


Required: No

**Tags (p. 13)**

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. Once the resource is created, you can use TagResource (p. 301), UntagResource (p. 304), and ListTagsForResource (p. 236) 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 (p. 450) objects

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

Required: No

### Response Syntax

```json
{
    "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 (p. 14)**

The newly created alias resource.

Type: Alias (p. 360) object

---

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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
• AWS SDK for JavaScript
• 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. Game server binaries must be combined into a zip file for use with Amazon GameLift.

**Important**

When setting up a new game build for 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 a GameLift Amazon S3 location, and (2) it creates a new build resource.

The `CreateBuild` operation can be used in the following scenarios:

- To create a new game build with build files that are in an S3 location under an AWS account that you control. To use this option, you must first give Amazon GameLift access to the S3 bucket. With permissions in place, call `CreateBuild` and specify a build name, operating system, and the S3 storage location of your game build.
- To directly upload your build files to a GameLift S3 location. To use this option, first call `CreateBuild` and specify a build name and operating system. This action creates a new build resource and also returns an S3 location with temporary access credentials. Use the credentials to manually upload your build files to the specified S3 location. For more information, see Uploading Objects in the Amazon S3 Developer Guide. Build files can be uploaded to the GameLift S3 location once only; that can't be updated.

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

**Related operations**

- `CreateBuild` (p. 17)
- `ListBuilds` (p. 217)
- `DescribeBuild` (p. 120)
- `UpdateBuild` (p. 310)
- `DeleteBuild` (p. 88)

**Request Syntax**

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

API Version 2015-10-01
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

**Name (p. 17)**
A descriptive label that is associated with a build. Build names do not need to be unique. You can use UpdateBuild (p. 310) to change this value later.

Type: String
Required: No

**OperatingSystem (p. 17)**
The 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. If your game build contains multiple executables, they all must run on the same operating system. If an operating system is not specified when creating a build, Amazon GameLift uses the default value (WINDOWS_2012). This value cannot be changed later.

Type: String
Valid Values: WINDOWS_2012 | AMAZON_LINUX | AMAZON_LINUX_2
Required: No

**StorageLocation (p. 17)**
Information indicating where your game build files are stored. Use this parameter only when creating a build with files stored in an S3 bucket that you own. The storage location must specify an S3 bucket name and key. The location must also specify a role ARN that you set up to allow Amazon GameLift to access your S3 bucket. The S3 bucket and your new build must be in the same Region.

Type: S3Location (p. 441) object
Required: No

**Tags (p. 17)**
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 (p. 301), UntagResource (p. 304), and ListTagsForResource (p. 236) 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 (p. 450) objects
Array Members: Minimum number of 0 items. Maximum number of 200 items.
Required: No

**Version (p. 17)**

Version information that is associated with a build or script. Version strings do not need to be unique. You can use UpdateBuild (p. 310) to change this value later.

Type: String


Required: No

---

**Response Syntax**

```
{
  "Build": {
    "BuildArn": "string",
    "BuildId": "string",
    "CreationTime": number,
    "Name": "string",
    "OperatingSystem": "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 (p. 19)**

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

Type: Build (p. 365) object

**StorageLocation (p. 19)**

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

Type: S3Location (p. 441) object

**UploadCredentials (p. 19)**

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 S3 bucket that is owned
by Amazon GameLift. Credentials have a limited life span. To refresh these credentials, call RequestUploadCredentials (p. 252).

Type: AwsCredentials (p. 364) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

InternalServerErrorException

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. Since the request does not specify an operating system, the new build resource defaults to WINDOWS_2012.

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

Sample Request

```json
{
  "Name": "MegaFrogRaceServer.NA",
```
Create a game build resource for manually uploading files to 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 GameLift location in S3. Once you've successfully uploaded your build, the GameLift service validates the build and updates the new build's status.

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

Sample Request

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

Sample Response

```json
{
  "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_2012",
    "SizeOnDisk": 0,
    "Status": "INITIALIZED",
    "Version": "12345.678"
  },
  "StorageLocation": {
    "Bucket": "MegaFrogRaceServer_NA_build_files",
    "Key": "MegaFrogRaceServer_build_123.zip"
  }
}
```
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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateFleet

Creates a new fleet to run your game servers, whether they are custom game builds or Realtime Servers with game-specific script. A fleet is a set of Amazon Elastic Compute Cloud (Amazon EC2) instances, each of which can host multiple game sessions. When creating a fleet, you choose the hardware specifications, set some configuration options, and specify the game server to deploy on the new fleet.

To create a new fleet, provide the following: (1) a fleet name, (2) an EC2 instance type and fleet type (spot or on-demand), (3) the build ID for your game build or script ID if using Realtime Servers, and (4) a runtime configuration, which determines how game servers will run on each instance in the fleet.

If the CreateFleet call is successful, Amazon GameLift performs the following tasks. You can track the process of a fleet by checking the fleet status or by monitoring fleet creation events:

- Creates a fleet resource. Status: NEW.
- Begins writing events to the fleet event log, which can be accessed in the Amazon GameLift console.
- Sets the fleet's target capacity to 1 (desired instances), which triggers Amazon GameLift to start one new EC2 instance.
- Downloads the game build or Realtime script to the new instance and installs it. Statuses: DOWNLOADING, VALIDATING, BUILDING.
- Starts launching server processes on the instance. If the fleet is configured to run multiple server processes per instance, Amazon GameLift staggers each process launch by a few seconds. Status: ACTIVATING.
- Sets the fleet's status to ACTIVE as soon as one server process is ready to host a game session.

Learn more

Setting Up Fleets

Debug Fleet Creation Issues

Related operations

- CreateFleet (p. 23)
- ListFleets (p. 222)
- DeleteFleet (p. 91)
- DescribeFleetAttributes (p. 126)
- UpdateFleetAttributes (p. 314)
- StartFleetActions (p. 271) or StopFleetActions (p. 289)

Request Syntax

```json
{
    "BuildId": "string",
    "CertificateConfiguration": {
        "CertificateType": "string"
    },
    "Description": "string",
    "EC2InboundPermissions": [
        {
            "FromPort": number,
            "IpRange": "string",
            "Protocol": "string",
            "ToPort": number
        }
    ]
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

### EC2InstanceType (p. 23)

The name of an 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. Amazon GameLift supports the following EC2 instance types. See Amazon EC2 Instance Types for detailed descriptions.

**Type:** String

**Valid Values:**
- t2.micro
- t2.small
- t2.medium
- t2.large
- c3.large
- c3.xlarge
- c3.2xlarge
- 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
- 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

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**Amazon GameLift Service API Reference**

**Request Parameters**

<table>
<thead>
<tr>
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<th>r5.8xlarge</th>
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<td>m5.8xlarge</td>
<td>m5.12xlarge</td>
<td>m5.16xlarge</td>
<td>m5.24xlarge</td>
</tr>
</tbody>
</table>

**Required:** Yes

**Name (p. 23)**

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

Type: String


**BuildId (p. 23)**

A unique identifier for a build to be deployed on the new fleet. You can use either the build ID or ARN value. The custom game server build must have been successfully uploaded to Amazon GameLift and be in a READY status. This fleet setting cannot be changed once the fleet is created.

Type: String

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

**CertificateConfiguration (p. 23)**

Indicates whether to generate a TLS/SSL certificate for the new fleet. TLS certificates are used for encrypting traffic between game clients and game servers running on GameLift. If this parameter is not specified, the default value, DISABLED, is used. This fleet setting cannot be changed once the fleet is created. Learn more at Securing Client/Server Communication.

Note: This feature requires the AWS Certificate Manager (ACM) service, which is available in the AWS global partition but not in all other partitions. When working in a partition that does not support this feature, a request for a new fleet with certificate generation results fails with a 4xx unsupported Region error.

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: CertificateConfiguration (p. 367) object

**Description (p. 23)**

A human-readable description of a fleet.

Type: String


**EC2InboundPermissions (p. 23)**

Range of IP addresses and port settings that permit inbound traffic to access game sessions that are running on the fleet. For fleets using a custom game build, this parameter is required before game
sessions running on the fleet can accept connections. For Realtime Servers fleets, Amazon GameLift automatically sets TCP and UDP ranges for use by the Realtime servers. You can specify multiple permission settings or add more by updating the fleet.

Type: Array of IpPermission (p. 414) objects

Array Members: Maximum number of 50 items.

Required: No

FleetType (p. 23)

Indicates whether to use On-Demand instances or Spot instances for this fleet. If empty, the default is ON_DEMAND. Both categories of instances use identical hardware and configurations based on the instance type selected for this fleet. Learn more about On-Demand versus Spot Instances.

Type: String

Valid Values: ON_DEMAND | SPOT

Required: No

InstanceRoleArn (p. 23)

A unique identifier for an AWS IAM role that manages access to your AWS services. With an instance role ARN set, any application that runs on an instance in this fleet can assume the role, including install scripts, server processes, and daemons (background processes). Create a role or look up a role's ARN from the IAM dashboard in the AWS Management Console. Learn more about using on-box credentials for your game servers at Access external resources from a game server.

Type: String

Length Constraints: Minimum length of 1.

Required: No

LogPaths (p. 23)

This parameter is no longer used. Instead, 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. See more information in the Server API Reference.

Type: Array of strings


Required: No

MetricGroups (p. 23)

The name of an Amazon CloudWatch metric group to add this fleet to. A metric group aggregates the metrics for all fleets in the group. Specify an existing metric group name, or provide a new name to create a new metric group. A fleet can only be included 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
NewGameSessionProtectionPolicy (p. 23)

A game session protection policy to apply to all instances in this fleet. If this parameter is not set, instances in this fleet default to no protection. You can change a fleet’s protection policy using UpdateFleetAttributes (p. 314), but this change will only affect sessions created after the policy change. You can also set protection for individual instances using UpdateGameSession (p. 336).

- **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

PeerVpcAwsAccountId (p. 23)

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


Required: No

PeerVpcId (p. 23)

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


Required: No

ResourceCreationLimitPolicy (p. 23)

A policy that limits the number of game sessions an individual player can create over a span of time for this fleet.

Type: ResourceCreationLimitPolicy (p. 436) object

Required: No

RuntimeConfiguration (p. 23)

Instructions for launching server processes on each instance in the fleet. Server processes run either a custom game build executable or a Realtime script. The runtime configuration defines the server executables or launch script file, launch parameters, and the number of processes to run concurrently on each instance. When creating a fleet, the runtime configuration must have at least one server process configuration; otherwise the request fails with an invalid request exception. (This parameter replaces the parameters ServerLaunchPath and ServerLaunchParameters, although requests that contain values for these parameters instead of a runtime configuration will continue to work.) This parameter is required unless the parameters ServerLaunchPath and ServerLaunchParameters are defined. Runtime configuration replaced these parameters, but fleets that use them will continue to work.

Type: RuntimeConfiguration (p. 439) object
**ScriptId (p. 23)**

A unique identifier for a Realtime script to be deployed on the new fleet. You can use either the script ID or ARN value. The Realtime script must have been successfully uploaded to Amazon GameLift. This fleet setting cannot be changed once the fleet is created.

Type: String

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

Required: No

**ServerLaunchParameters (p. 23)**

This parameter is no longer used. Instead, specify server launch parameters in the `RuntimeConfiguration` parameter. (Requests that specify a server launch path and launch parameters instead of a runtime configuration will continue to work.)

Type: String


Required: No

**ServerLaunchPath (p. 23)**

This parameter is no longer used. Instead, specify a server launch path using the `RuntimeConfiguration` parameter. Requests that specify a server launch path and launch parameters instead of a runtime configuration will continue to work.

Type: String


Required: No

**Tags (p. 23)**

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. Once the resource is created, you can use `TagResource` (p. 301), `UntagResource` (p. 304), and `ListTagsForResource` (p. 236) 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 (p. 450) objects

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

Required: No

**Response Syntax**

```
{
   "FleetAttributes": {
      "BuildArn": "string",
      "BuildId": "string",
      "CertificateConfiguration": {
         "CertificateType": "string"
      }
   }
```

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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 (p. 28)**

Properties for the newly created fleet.

Type: FleetAttributes (p. 376) object

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 460).

**ConflictException**

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

A service resource associated with the request could not be found. Clients should not retry such requests.

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 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. Note: this example illustrates the use of TLS certificates, since this feature can only be enabled on fleet creation.

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

**Sample Request**

```json
{
  "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

```json
{
  "FleetAttributes": {
    "BuildArn": "arn:aws:gamelift:us-west-2::build/build-1111aaaa-22bb-33cc-44dd-5555eeeee66ff",
    "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeeee66ff",
    "CertificateConfiguration": {
      "CertificateType": "GENERATED"
    },
    "CreationTime": 1496365885.44,
    "Description": "A minimal sample fleet",
    "FleetArn": "arn:aws:gamelift:us-west-2::fleet/fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "FleetType": "ON_DEMAND",
    "InstanceType": "c4.large",
    "MetricGroups": ["default"],
    "Name": "My_Fleet_1",
    "NewGameSessionProtectionPolicy": "NoProtection",
    "OperatingSystem": "AMAZON_LINUX",
    "ServerLaunchPath": "/local/game/mygame.exe",
    "Status": "NEW"
  }
}
```

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.

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

Sample Request

```json
{
  "Name": "My_Fleet_1",
  "Description": "A minimal sample fleet",
  "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeeee66ff",
  "EC2InstanceType": "c4.large",
  "FleetType": "ON_DEMAND",
  "RuntimeConfiguration": {
    "ServerProcesses": [
      {"LaunchPath": "c:\game\mygame.exe",
       "ConcurrentExecutions": 1}
    ]
  }
}
```

Sample Response

```json
{
  "FleetAttributes": {
    "BuildArn": "arn:aws:gamelift:us-west-2::build/build-1111aaaa-22bb-33cc-44dd-5555eeeee66ff",
    "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeeee66ff",
    "CreationTime": 1496365885.44,
    "Description": "A minimal sample fleet",
    "FleetArn": "arn:aws:gamelift:us-west-2::fleet/fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "FleetType": "ON_DEMAND",
    "InstanceType": "c4.large",
    "MetricGroups": ["default"],
    "Name": "My_Fleet_1",
    "NewGameSessionProtectionPolicy": "NoProtection",
    "OperatingSystem": "AMAZON_LINUX",
    "ServerLaunchPath": "/local/game/mygame.exe",
    "Status": "NEW"
  }
}
```
Create fleet with full configuration

This example creates a new fleet with complete configuration details. In this example, the runtime configuration sets up two different 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, each instance in this fleet is configured to run four processes of the game server concurrently. This example also requests that a VPC peering connection be established between the VPC for this new fleet and another VPC that has been pre-authorized. The game server build in this example is Windows.

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

Sample Request

```json
{
  "Name": "My_Fleet_1",
  "Description": "A fully configured sample fleet",
  "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eee66ff",
  "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"}
  ],
  "FleetType": "ON_DEMAND",
  "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}
    ]
  }
}
```
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 (p. 348) action.

For the purposes of this example, assume that the uploaded Realtime script includes multiple script files, with the `Init()` function located in the script file called “myMainScript.js”. As shown, this file is identified as the launch script in the runtime configuration.

**Note**
When creating a Realtime Servers fleet, we recommend using a minimal version of the Realtime script (see this working code example). This will make it much easier to troubleshoot any fleet creation issues. Once the fleet is active, you can update your Realtime script as needed.

Sample Request

```json
{
    "Name": "My_Realtime_Fleet_1",
    "BuildArn": "arn:aws:gamelift:us-west-2::build/build-1111aaaa-22bb-33cc-44dd-5555eeeee66ff",
    "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeeee66ff",
    "CreationTime": 1496375088.502,
    "CertificateConfiguration": {
        "CertificateType": "GENERATED"
    },
    "Description": "A fully configured sample fleet",
    "FleetArn": "arn:aws:gamelift:us-west-2::fleet/fleet-2222bbbb-33cc-44dd-55ee-6666fffff77aa",
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666fffff77aa",
    "FleetType": "ON_DEMAND",
    "InstanceRoleArn": "arn:aws:iam::444455556666:role/S3AccessForGameLift",
    "MetricGroups": ["EMEAfleets"],
    "Name": "My_Fleet_One",
    "NewGameSessionProtectionPolicy": "FullProtection",
    "OperatingSystem": "WINDOWS_2012",
    "ResourceCreationLimitPolicy": {
        "NewGameSessionsPerCreator": 3,
        "PolicyPeriodInMinutes": 15
    },
    "Status": "NEW"
}
```
"Description": "A complete Realtime sample fleet",
"CertificateConfiguration": {
    "CertificateType": "GENERATED",
},
"EC2InstanceType": "c4.large",
"FleetType": "SPOT",
"RuntimeConfiguration": {
    "ServerProcesses": [
        {
            "LaunchPath": "/local/game/myMainScript.js",
            "Parameters": "+map Winter444",
            "ConcurrentExecutions": 5
        }
    ]
},
"ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
}

Sample Response

{
    "FleetAttributes": {
        "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "CertificateConfiguration": {
            "CertificateType": "GENERATED"
        },
        "CreationTime": 1496375088.502,
        "Description": "A complete Realtime sample fleet",
        "FleetArn": "arn:aws:gamelift:us-west-2::fleet/fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "FleetType": "SPOT",
        "MetricGroups": ["default"],
        "Name": "My_Realtime_Fleet_1",
        "NewGameSessionProtectionPolicy": "NoProtection",
        "OperatingSystem": "AMAZON_LINUX",
        "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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
CreateGameServerGroup

This operation is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

Creates a GameLift FleetIQ game server group to manage a collection of Amazon EC2 instances for game hosting. In addition to creating the game server group, this operation also creates an Auto Scaling group in your AWS account and establishes a link between the two groups. You have full control over configuration of the Auto Scaling group, but GameLift FleetIQ routinely updates certain Auto Scaling group properties in order to optimize the group's instances for low-cost game hosting. You can view the status of your game server groups in the GameLift console. Game server group metrics and events are emitted to Amazon CloudWatch.

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

- An Amazon EC2 launch template. The template provides configuration settings for a set of Amazon EC2 instances and includes the game server build that you want to deploy and run on each instance. For more information on creating a launch template, see Launching an Instance from a Launch Template in the Amazon EC2 User Guide.
- An IAM role. The role sets up limited access to your AWS account. This role allows GameLift FleetIQ to create and manage the Auto Scaling group, get instance data, and emit metrics and events to CloudWatch. For more information on setting up an IAM permissions policy with principal access for GameLift, see Specifying a Principal in a Policy in the Amazon S3 Developer Guide.

To create a new game server group, provide a name and specify the IAM role and Amazon EC2 launch template. You also need to provide a list of instance types to 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 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. Keep in mind, however, that some properties are periodically updated by GameLift FleetIQ as it balances the group's instances based on availability and cost.

Learn more

GameLift FleetIQ Guide

Related operations

- CreateGameServerGroup (p. 35)
- ListGameServerGroups (p. 226)
- DescribeGameServerGroup (p. 153)
- UpdateGameServerGroup (p. 331)
- DeleteGameServerGroup (p. 94)
- ResumeGameServerGroup (p. 258)
- SuspendGameServerGroup (p. 297)

Request Syntax

```json
{
    "AutoScalingPolicy": {
        "EstimatedInstanceWarmup": number,
        "TargetTrackingConfiguration": {
```
For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**GameServerGroupName (p. 35)**

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

Type: String


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

Required: Yes

**InstanceDefinitions (p. 35)**

A set of EC2 instance types to use when creating instances in the group. The instance definitions must specify at least two different instance types that are supported by GameLift FleetIQ. For more information on instance types, see EC2 Instance Types in the Amazon EC2 User Guide.

Type: Array of InstanceDefinition (p. 413) objects

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

Required: Yes
LaunchTemplate (p. 35)

The 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 EC2 Auto Scaling User Guide.

Type: LaunchTemplateSpecification (p. 416) object

Required: Yes

MaxSize (p. 35)

The maximum number of instances allowed in the EC2 Auto Scaling group. During automatic scaling events, GameLift FleetIQ and EC2 do not scale up the group above this maximum.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

MinSize (p. 35)

The minimum number of instances allowed in the EC2 Auto Scaling group. During automatic scaling events, GameLift FleetIQ and EC2 do not scale down the group below this minimum. In production, this value should be set to at least 1.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

RoleArn (p. 35)

The Amazon Resource Name (ARN) for an IAM role that allows Amazon GameLift to access your EC2 Auto Scaling groups. The submitted role is validated to ensure that it contains the necessary permissions for game server groups.

Type: String

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

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

Required: Yes

AutoScalingPolicy (p. 35)

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. Once the game server and Auto Scaling groups are created, you can update the scaling policy settings directly using the Auto Scaling Groups console or APIs.

Type: GameServerGroupAutoScalingPolicy (p. 393) object

Required: No

BalancingStrategy (p. 35)

The fallback balancing method to use for the game server group when Spot Instances in a Region become unavailable or are not viable for game hosting. Once triggered, this method remains active until Spot Instances can once again be used. Method options include the following:
• **SPOT_ONLY** - If Spot Instances are unavailable, the game server group provides no hosting capacity. No new instances are started. Existing nonviable Spot Instances are terminated (after current gameplay ends) and are not replaced.

• **SPOT_PREFERRED** - If Spot Instances are unavailable, the game server group continues to provide hosting capacity by using On-Demand Instances. Existing nonviable Spot Instances are terminated (after current gameplay ends) and are replaced with new On-Demand Instances.

Type: String

Valid Values: SPOT_ONLY | SPOT_PREFERRED

Required: No

**GameServerProtectionPolicy** (p. 35)

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. An exception to this is 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** (p. 35)

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. Once the resource is created, you can use TagResource (p. 301), UntagResource (p. 304), and ListTagsForResource (p. 236) to add, remove, and view tags, respectively. The maximum tag limit may be lower than stated. See the AWS General Reference for actual tagging limits.

Type: Array of Tag (p. 450) objects

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

Required: No

**VpcSubnets** (p. 35)

A list of virtual private cloud (VPC) subnets to use with instances in the game server group. By default, all GameLift FleetIQ-supported Availability Zones are used. You can use this parameter to specify VPCs that you've set up.

Type: Array of strings

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

Length Constraints: Fixed length of 15.

Pattern: ^subnet-[0-9a-z]{8}$

Required: No

**Response Syntax**

```json
{

```
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 (p. 38)**

The newly created game server group object, including the new ARN value for the GameLift FleetIQ game server group and the object’s status. The 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 (p. 389) object

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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 to instances of two different types. This game server group is set up to use Spot Instances only. The request also triggers creation of a target-tracking Auto Scaling policy. Based on this policy, the Auto Scaling group will maintain approximately 75% game server utilization. This utilization leaves 25% of capacity idle to support 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",
    "MaxSize": 1,
    "MinSize": 1000,
    "GameServerProtectionPolicy": "NO_PROTECTION",
    "BalancingStrategy": "SPOT_ONLY",
    "LaunchTemplate": {
        "LaunchTemplateId": "12345678",
    },
    "InstanceDefinitions": [
        {"InstanceType": "c5.xlarge"},
        {"InstanceType": "m5.xlarge"}
    ],
    "AutoScalingPolicy": {
        "TargetTrackingConfiguration": {
            "TargetValue": 75
        }
    }
}
```

CLI command:
```
aws fiesta create-game-server-group
    --game-server-group-name MegaFrogServers_NA
    --role-arn arn:aws:iam::123456789012:role/GameLiftGSGRole
    --max-size 100
    --min-size 1
    --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": {
    "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",
  "MaxSize": 1,
  "MinSize": 200,
  "InstanceDefinitions": [
    {
      "InstanceType": "c5.2xlarge",
      "WeightedCapacity": "1"
    },
    {
      "InstanceType": "c5.4xlarge",
      "WeightedCapacity": "2"
    },
    {
      "InstanceType": "c5.24xlarge",
      "WeightedCapacity": "12"
    }
  ]
}
```
"LaunchTemplate": {
  "LaunchTemplateName": "MegaFrogServers"
}
}

CLI command:

```bash
aws fiesta 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 '[["InstanceType":"m5.2xlarge","WeightedCapacity":"1"],
  {"InstanceType":"m5.4xlarge","WeightedCapacity":"2"},
  {"InstanceType":"m5.24xlarge","WeightedCapacity":"12"}]
```

Sample Response

```json
{
  "GameServerGroup": {
    "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
Amazon GameLift Service API Reference
See Also

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

Creates a multiplayer game session for players. This action creates a game session record and assigns an available server process in the specified fleet to host the game session. A fleet must have an ACTIVE status before a game session can be created in it.

To create a game session, specify either fleet ID or alias ID and indicate a maximum number of players to allow in the game session. You can also provide a name and game-specific properties for this game session. If successful, a GameSession (p. 394) object is returned containing the game session properties and other settings you specified.

Idempotency tokens. You can add a token that uniquely identifies game session requests. This is useful for ensuring that game session requests are idempotent. Multiple requests with the same idempotency token are processed only once; subsequent requests return the original result. All response values are the same with the exception of game session status, which may change.

Resource creation limits. If you are creating a game session on a fleet with a resource creation limit policy in force, then you must specify a creator ID. Without this ID, Amazon GameLift has no way to evaluate the policy for this new game session request.

Player acceptance policy. By default, newly created game sessions are open to new players. You can restrict new player access by using UpdateGameSession (p. 336) to change the game session's player session creation policy.

Game session logs. Logs are retained for all active game sessions for 14 days. To access the logs, call GetGameSessionLogUrl (p. 206) to download the log files.

Available in Amazon GameLift Local.

- CreateGameSession (p. 44)
- DescribeGameSessions (p. 167)
- DescribeGameSessionDetails (p. 157)
- SearchGameSessions (p. 262)
- UpdateGameSession (p. 336)
- GetGameSessionLogUrl (p. 206)
- Game session placements
  - StartGameSessionPlacement (p. 274)
  - DescribeGameSessionPlacement (p. 161)
  - StopGameSessionPlacement (p. 292)

Request Syntax

```
{
  "AliasId": "string",
  "CreatorId": "string",
  "FleetId": "string",
  "GameProperties": [
  
  ],
  "GameSessionData": "string",
  "GameSessionId": "string",
  "IdempotencyToken": "string",
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

MaximumPlayerSessionCount (p. 44)

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 (p. 44)

A unique identifier for an 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 (p. 44)

A unique identifier for a player or entity creating the game session. This ID is used to enforce a resource protection policy (if one exists) that limits the number of concurrent active game sessions one player can have.

Type: String


Required: No

FleetId (p. 44)

A unique identifier for a 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 (p. 44)

Set of custom properties for a game session, formatted as key:value pairs. These properties are passed to a game server process in the GameSession (p. 394) object with a request to start a new game session (see Start a Game Session).
Type: Array of `GameProperty (p. 385)` objects

Array Members: Maximum number of 16 items.

Required: No

**GameSessionData (p. 44)**

Set of custom game session properties, formatted as a single string value. This data is passed to a game server process in the `GameSession (p. 394)` object with a request to start a new game session (see `Start a Game Session`).

Type: String


Required: No

**GameSessionId (p. 44)**

*This parameter is no longer preferred. Please 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. (A game session ARN has the following format: `arn:aws:gamelift:<region>::gamesession/<fleet ID>/<custom ID string or idempotency token>`.)

Type: String


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

Required: No

**IdempotencyToken (p. 44)**

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. (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


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

Required: No

**Name (p. 44)**

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

Type: String


Required: No

**Response Syntax**

```json
{
}
```
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 (p. 46)

Object that describes the newly created game session record.

Type: GameSession (p. 394) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

**LimitExceeded Exception**

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

HTTP Status Code: 400

**NotFoundException**

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

**TerminalRoutingStrategyException**

The service is unable to resolve the routing for a particular alias because it has a terminal RoutingStrategy (p. 437) 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
- AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
CreateGameSessionQueue

Establishes a new queue for processing requests to place new game sessions. A queue identifies where new game sessions can be hosted -- by specifying a list of destinations (fleets or aliases) -- and how long requests can wait in the queue before timing out. You can set up a queue to try to place game sessions on fleets in multiple Regions. To add placement requests to a queue, call StartGameSessionPlacement (p. 274) and reference the queue name.

Destination order. When processing a request for a game session, Amazon GameLift tries each destination in order until it finds one with available resources to host the new game session. A queue's default order is determined by how destinations are listed. The default order is overridden when a game session placement request provides player latency information. Player latency information enables Amazon GameLift to prioritize destinations where players report the lowest average latency, as a result placing the new game session where the majority of players will have the best possible gameplay experience.

Player latency policies. For placement requests containing player latency information, use player latency policies to protect individual players from very high latencies. With a latency cap, even when a destination can deliver a low latency for most players, the game is not placed where any individual player is reporting latency higher than a policy's maximum. A queue can have multiple latency policies, which are enforced consecutively starting with the policy with the lowest latency cap. Use multiple policies to gradually relax latency controls; for example, you might set a policy with a low latency cap for the first 60 seconds, a second policy with a higher cap for the next 60 seconds, etc.

To create a new queue, provide a name, timeout value, a list of destinations and, if desired, a set of latency policies. If successful, a new queue object is returned.

Learn more

Design a Game Session Queue

Create a Game Session Queue

Related operations

- CreateGameSessionQueue (p. 50)
- DescribeGameSessionQueues (p. 164)
- UpdateGameSessionQueue (p. 340)
- DeleteGameSessionQueue (p. 98)

Request Syntax

```json
{
  "Destinations": [
    {
      "DestinationArn": "string"
    }
  ],
  "Name": "string",
  "PlayerLatencyPolicies": [
    {
      "MaximumIndividualPlayerLatencyMilliseconds": number,
      "PolicyDurationSeconds": number
    }
  ],
  "Tags": []
}
```
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

**Name (p. 50)**
A descriptive label that is associated with game session queue. Queue names must be unique within each Region.
Type: String
Pattern: [a-zA-Z0-9-]+
Required: Yes

**Destinations (p. 50)**
A list of fleets that can be used to fulfill game session placement requests in the queue. Fleets are identified by either a fleet ARN or a fleet alias ARN. Destinations are listed in default preference order.
Type: Array of GameSessionQueueDestination (p. 407) objects
Required: No

**PlayerLatencyPolicies (p. 50)**
A collection of latency policies to apply when processing game sessions placement requests with player latency information. Multiple policies are evaluated in order of the maximum latency value, starting with the lowest latency values. With just one policy, the policy is enforced at the start of the game session placement for the duration period. With multiple policies, each policy is enforced consecutively for its duration period. For example, a queue might enforce a 60-second policy followed by a 120-second policy, and then no policy for the remainder of the placement. A player latency policy must set a value for MaximumIndividualPlayerLatencyMilliseconds. If none is set, this API request fails.
Type: Array of PlayerLatencyPolicy (p. 432) objects
Required: No

**Tags (p. 50)**
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. Once the resource is created, you can use TagResource (p. 301), UntagResource (p. 304), and ListTagsForResource (p. 236) 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 (p. 450) objects

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

Required: No

**TimeoutInSeconds (p. 50)**

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.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

**Response Syntax**

```json
{
    "GameSessionQueue": {
        "Destinations": [
            {
                "DestinationArn": "string"
            }
        ],
        "GameSessionQueueArn": "string",
        "Name": "string",
        "PlayerLatencyPolicies": [
            {
                "MaximumIndividualPlayerLatencyMilliseconds": number,
                "PolicyDurationSeconds": number
            }
        ],
        "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 (p. 52)**

An object that describes the newly created game session queue.

Type: GameSessionQueue (p. 405) object

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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.

Example

Create and configure a game session queue

This example creates a new game session queue with destinations in two different Regions. It configures the queue so that requests for new game sessions expire after waiting 10 minutes for placement. The request also configures two latency policies. These are enforced consecutively starting with the one with the lowest maximum latency value. In this example, the 100ms latency cap is enforced during the first 60 seconds of a game session placement, followed by the 200ms cap for the rest of the placement duration.

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: 508
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.CreateGameSessionQueue

{
    "Name": "matchmaker-queue",
    "Destinations": [
    { "DestinationArn": "arn:aws:gamelift:us-west-2::fleet/fleet-1a2b3c4d-5e6f-7a8b-9c0d-1e2f3a4b5c6d" },
```
Sample Response

```
{
  "GameSessionQueue": {
    "Name": "matchmaker-queue",
    "TimeoutInSeconds": 600,
    "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"
      }
    ]
  }
}
```

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

API Version 2015-10-01

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CreateMatchmakingConfiguration

Defines a new matchmaking configuration for use with FlexMatch. A matchmaking configuration sets out guidelines for matching players and getting the matches into games. You can set up multiple matchmaking configurations to handle the scenarios needed for your game. Each matchmaking ticket (StartMatchmaking (p. 284) or StartMatchBackfill (p. 280)) specifies a configuration for the match and provides player attributes to support the configuration being used.

To create a matchmaking configuration, at a minimum you must specify the following: configuration name; a rule set that governs how to evaluate players and find acceptable matches; a game session queue to use when placing a new game session for the match; and the maximum time allowed for a matchmaking attempt.

There are two ways to track the progress of matchmaking tickets: (1) polling ticket status with DescribeMatchmaking (p. 175); or (2) receiving notifications with Amazon Simple Notification Service (SNS). To use notifications, you first need to set up an SNS topic to receive the notifications, and provide the topic ARN in the matchmaking configuration. Since notifications promise only "best effort" delivery, we recommend calling DescribeMatchmaking if no notifications are received within 30 seconds.

Learn more

Design a FlexMatch Matchmaker

Setting up Notifications for Matchmaking

Related operations

• CreateMatchmakingConfiguration (p. 55)
• DescribeMatchmakingConfigurations (p. 178)
• UpdateMatchmakingConfiguration (p. 343)
• DeleteMatchmakingConfiguration (p. 100)
• CreateMatchmakingRuleSet (p. 61)
• DescribeMatchmakingRuleSets (p. 182)
• ValidateMatchmakingRuleSet (p. 356)
• DeleteMatchmakingRuleSet (p. 102)

Request Syntax

```json
{
    "AcceptanceRequired": boolean,
    "AcceptanceTimeoutSeconds": number,
    "AdditionalPlayerCount": number,
    "BackfillMode": "string",
    "CustomEventData": "string",
    "Description": "string",
    "GameProperties": [
        {
            "Key": "string",
            "Value": "string"
        }
    ],
    "GameSessionData": "string",
    "GameSessionQueueArns": [ "string" ],
    "Name": "string",
    "NotificationTarget": "string",
    "RequestTimeoutSeconds": number,
}
```

API Version 2015-10-01

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Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

AcceptanceRequired (p. 55)

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.

Type: Boolean

Required: Yes

GameSessionQueueArns (p. 55)

Amazon Resource Name (ARN) that is assigned to a GameLift game session queue resource and uniquely identifies it. ARNs are unique across all Regions. These queues are used when placing game sessions for matches that are created with this matchmaking configuration. Queues can be located in any Region.

Type: Array of strings

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

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

Required: Yes

Name (p. 55)

A unique identifier for a 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 (p. 55)

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

Amazon GameLift Service API Reference
Request Parameters

Required: Yes
**RuleSetName (p. 55)**
A unique identifier for a 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 (p. 55)**
The length of time (in seconds) to wait for players to accept a proposed match. If any player rejects
the match or fails to accept before the timeout, the ticket continues to look for an acceptable match.

Type: Integer

Required: No
**AdditionalPlayerCount (p. 55)**
The number of player slots in a match to keep open for future players. For example, assume that the
configuration's rule set specifies a match for a single 12-person team. If the additional player count
is set to 2, only 10 players are initially selected for the match.

Type: Integer
Valid Range: Minimum value of 0.

Required: No
**BackfillMode (p. 55)**
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 GameLift create a StartMatchBackfill (p. 280) request
whenever a game session has one or more open slots. Learn more about manual and automatic
backfill in Backfill Existing Games with FlexMatch.

Type: String
Valid Values: AUTOMATIC | MANUAL

Required: No
**CustomEventData (p. 55)**
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 (p. 55)**
A human-readable description of the matchmaking configuration.
Type: String
Required: No

**GameProperties (p. 55)**

A set of custom properties for a game session, formatted as key-value pairs. These properties are passed to a game server process in the GameSession (p. 394) object with a request to start a new game session (see Start a Game Session). This information is added to the new GameSession (p. 394) object that is created for a successful match.

Type: Array of GameProperty (p. 385) objects
Array Members: Maximum number of 16 items.
Required: No

**GameSessionData (p. 55)**

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 (p. 394) object with a request to start a new game session (see Start a Game Session). This information is added to the new GameSession (p. 394) object that is created for a successful match.

Type: String
Required: No

**NotificationTarget (p. 55)**

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:_/-]*
Required: No

**Tags (p. 55)**

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. Once the resource is created, you can use TagResource (p. 301), UntagResource (p. 304), and ListTagsForResource (p. 236) 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 (p. 450) objects
Array Members: Minimum number of 0 items. Maximum number of 200 items.
Required: No

**Response Syntax**

```json
{
}
```
"Configuration": {
    "AcceptanceRequired": boolean,
    "AcceptanceTimeoutSeconds": number,
    "AdditionalPlayerCount": number,
    "BackfillMode": "string",
    "ConfigurationArn": "string",
    "CreationTime": number,
    "CustomEventData": "string",
    "Description": "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 (p. 58)

Object that describes the newly created matchmaking configuration.

Type: MatchmakingConfiguration (p. 419) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

LimitExceeded Exception

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

HTTP Status Code: 400
NotFoundException

A service resource associated with the request could not be found. Clients should not retry such requests.

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
- AWS SDK for JavaScript
- 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. A rule set is used by a MatchmakingConfiguration (p. 419).

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 (p. 356) before creating a new rule set.

Learn more
- Build a Rule Set
- Design a Matchmaker
- Matchmaking with FlexMatch

Related operations
- CreateMatchmakingConfiguration (p. 55)
- DescribeMatchmakingConfigurations (p. 178)
- UpdateMatchmakingConfiguration (p. 343)
- DeleteMatchmakingConfiguration (p. 100)
- CreateMatchmakingRuleSet (p. 61)
- DescribeMatchmakingRuleSets (p. 182)
- ValidateMatchmakingRuleSet (p. 356)
- DeleteMatchmakingRuleSet (p. 102)

Request Syntax

```json
{
    "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 (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.
Name (p. 61)

A unique identifier for a 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 (p. 61)

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
Required: Yes

Tags (p. 61)

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. Once the resource is created, you can use TagResource (p. 301), UntagResource (p. 304), and ListTagsForResource (p. 236) 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 (p. 450) objects
Array Members: Minimum number of 0 items. Maximum number of 200 items.
Required: No

Response Syntax

```json
{
  "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 (p. 62)

The newly created matchmaking rule set.
Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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

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

Reserves an open player slot in an active game session. Before a player can be added, a game session must have an ACTIVE status, have a creation policy of ALLOW_ALL, and have an open player slot. To add a group of players to a game session, use CreatePlayerSessions (p. 67). When the player connects to the game server and references a player session ID, the game server contacts the Amazon GameLift service to validate the player reservation and accept the player.

To create a player session, specify a game session ID, player ID, and optionally a string of player data. If successful, a slot is reserved in the game session for the player and a new PlayerSession (p. 433) object is returned. Player sessions cannot be updated.

Available in Amazon GameLift Local.

- CreatePlayerSession (p. 64)
- CreatePlayerSessions (p. 67)
- DescribePlayerSessions (p. 185)
- Game session placements
  - StartGameSessionPlacement (p. 274)
  - DescribeGameSessionPlacement (p. 161)
  - StopGameSessionPlacement (p. 292)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**GameSessionId (p. 64)**

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 (p. 64)**

A unique identifier for a player. Player IDs are developer-defined.
Type: String
Required: Yes

**PlayerData (p. 64)**

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 (p. 65)**

Object that describes the newly created player session record.

Type: PlayerSession (p. 433) object

### Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

TerminalRoutingStrategyException

The service is unable to resolve the routing for a particular alias because it has a terminal RoutingStrategy (p. 437) 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
- AWS SDK for JavaScript
- 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. Before players can be added, a game session must have an ACTIVE status, have a creation policy of ALLOW_ALL, and have an open player slot. To add a single player to a game session, use CreatePlayerSession (p. 64). When a player connects to the game server and references a player session ID, the game server contacts the Amazon GameLift service to validate the player reservation and accept the player.

To create player sessions, specify a game session ID, a list of player IDs, and optionally a set of player data strings. If successful, a slot is reserved in the game session for each player and a set of new PlayerSession (p. 433) objects is returned. Player sessions cannot be updated.

Available in Amazon GameLift Local.

- CreatePlayerSession (p. 64)
- CreatePlayerSessions (p. 67)
- DescribePlayerSessions (p. 185)
- Game session placements
  - StartGameSessionPlacement (p. 274)
  - DescribeGameSessionPlacement (p. 161)
  - StopGameSessionPlacement (p. 292)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**GameSessionId (p. 67)**

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 (p. 67)**

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.


Required: Yes

**PlayerDataMap (p. 67)**

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. Player data strings for player IDs 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

```json
{
  "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 (p. 68)**

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

Type: Array of PlayerSession (p. 433) objects

### Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).
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

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

TerminalRoutingStrategyException

The service is unable to resolve the routing for a particular alias because it has a terminal RoutingStrategy (p. 437) 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
- AWS SDK for JavaScript
- 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 operations

- CreateScript (p. 71)
- ListScripts (p. 232)
- DescribeScript (p. 198)
- UpdateScript (p. 351)
- DeleteScript (p. 107)

Request Syntax

```json
{
  "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 (p. 458).

The request accepts the following data in JSON format.

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

Name (p. 71)

A descriptive label that is associated with a script. Script names do not need to be unique. You can use UpdateScript (p. 351) to change this value later.

Type: String


Required: No

StorageLocation (p. 71)

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 (p. 441) object

Required: No

Tags (p. 71)

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 (p. 301), UntagResource (p. 304), and ListTagsForResource (p. 236) 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 (p. 450) objects

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

Required: No

Version (p. 71)

The version that is associated with a build or script. Version strings do not need to be unique. You can use UpdateScript (p. 351) to change this value later.

Type: String


Required: No

ZipFile (p. 71)

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: --

Type: Base64-encoded binary data object

Length Constraints: Maximum length of 5000000.

Required: No

Response Syntax

```json
{
  "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 (p. 73)

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 (p. 447)** object

**Errors**

For information about the errors that are common to all actions, see **Common Errors (p. 460)**.

**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
**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**

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

CLI syntax:

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

**Sample Response**

```json
{
  "Script": {
    "CreationTime": 1496708916.18,
    "Name": "My_Realtime_Script_1",
    "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
    "SizeOnDisk": 9000,
    "StorageLocation": {
      "Bucket": "prod-gamescale-scripts-us-west-2",
```

**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
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

```json
{
    "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

```json
{
    "Script": {
        "CreationTime": 1496708916.18,
        "Name": "My_Realtime_Script_2",
        "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
See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- 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. Once you've received authorization, call CreateVpcPeeringConnection (p. 82) 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 by a call to DeleteVpcPeeringAuthorization (p. 110). You must create or delete the peering connection while the authorization is valid.

- CreateVpcPeeringAuthorization (p. 77)
- DescribeVpcPeeringAuthorizations (p. 201)
- DeleteVpcPeeringAuthorization (p. 110)
- CreateVpcPeeringConnection (p. 82)
- DescribeVpcPeeringConnections (p. 203)
- DeleteVpcPeeringConnection (p. 112)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

- **GameLiftAwsAccountId (p. 77)**

  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
Required: Yes

PeerVpcId (p. 77)

A unique identifier for a VPC with resources to be accessed by your Amazon GameLift fleet. The VPC must be in the same Region where your fleet is deployed. Look up a VPC ID using the VPC Dashboard in the AWS Management Console. Learn more about VPC peering in VPC Peering with Amazon GameLift Fleets.

Type: String
Required: Yes

Response Syntax

```json
{
    "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 (p. 78)

Details on the requested VPC peering authorization, including expiration.

Type: VpcPeeringAuthorization (p. 453) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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.
Examples

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

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 (account ID is 111122223333). You've already created a VPC (or you're using your account's default VPC) for the web service. The ID for this VPC is vpc-a12bc345.

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

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: 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",
}}
```
Authorize VPC peering between your Amazon GameLift fleet and resources on a different AWS account

As in the previous example, you want your game servers to be able to access a web service. But in this example, the web service is managed through a different account from the one that you use to manage your Amazon GameLift fleet. Your Amazon GameLift account ID is 111122223333, while the web service account ID is 444455556666. A VPC has already been created on account 444455556666 with the web service. The ID for this VPC is vpc-c67ef890.

To make this request, sign in using credentials for AWS account 444455556666. If you don't have rights to this account, you need to provide your Amazon GameLift account ID to the owner of AWS account 444455556666 to make the request.

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: 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-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": "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
• AWS SDK for JavaScript
• 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 call CreateVpcPeeringAuthorization (p. 77) 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 VpcPeeringConnection (p. 455) request is created. You can use continuous polling to track the request's status using DescribeVpcPeeringConnections (p. 203), or by monitoring fleet events for success or failure using DescribeFleetEvents (p. 136).

- CreateVpcPeeringAuthorization (p. 77)
- DescribeVpcPeeringAuthorizations (p. 201)
- DeleteVpcPeeringAuthorization (p. 110)
- CreateVpcPeeringConnection (p. 82)
- DescribeVpcPeeringConnections (p. 203)
- DeleteVpcPeeringConnection (p. 112)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**FleetId (p. 82)**

A unique identifier for a 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 (p. 82)
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
Required: Yes

PeerVpcId (p. 82)
A unique identifier for a VPC with resources to be accessed by your Amazon GameLift fleet. The VPC must be in the same Region where your fleet is deployed. Look up a VPC ID using the VPC Dashboard in the AWS Management Console. Learn more about VPC peering in VPC Peering with Amazon GameLift Fleets.
Type: String
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 (p. 460).

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
A service resource associated with the request could not be found. Clients should not retry such requests.
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 AWS 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. To view the resulting new connection record, call DescribeVpcPeeringConnections (p. 203) with the fleet ID.

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: 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 AWS 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). To view resulting new connection record, call DescribeVpcPeeringConnections (p. 203) with the fleet ID.

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

Sample Request

```plaintext
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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteAlias

Deletes an alias. This action 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.

- CreateAlias (p. 13)
- ListAliases (p. 214)
- DescribeAlias (p. 117)
- UpdateAlias (p. 307)
- DeleteAlias (p. 86)
- ResolveAlias (p. 255)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**AliasId (p. 86)**

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\:\aliali\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 (p. 460).

**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

A service resource associated with the request could not be found. Clients should not retry such requests.

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

Deletes a build. This action 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

Related operations

- CreateBuild (p. 17)
- ListBuilds (p. 217)
- DescribeBuild (p. 120)
- UpdateBuild (p. 310)
- DeleteBuild (p. 88)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

Note

In the following list, the required parameters are described first.

BuildId (p. 88)

A unique identifier for a 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 (p. 460).
**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

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

---

**Example**

**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 cannot be undone.

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

**Sample Request**

```json
{
    "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
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DeleteFleet

Deletes everything related to a fleet. Before deleting a fleet, you must set the fleet's desired capacity to zero. See UpdateFleetCapacity (p. 318).

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 (p. 77). You do not need to explicitly delete the VPC peering connection--this is done as part of the delete fleet process.

This action removes the fleet and its resources. Once a fleet is deleted, you can no longer use any of the resource in that fleet.

Learn more

Setting up GameLift Fleets

Related operations

• CreateFleet (p. 23)
• ListFleets (p. 222)
• DeleteFleet (p. 91)
• DescribeFleetAttributes (p. 126)
• UpdateFleetAttributes (p. 314)
• StartFleetActions (p. 271) or StopFleetActions (p. 289)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**FleetId (p. 91)**

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

Type: String

Pattern: ^fleet-\S+|^arn:.*: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 (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

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

Example

Delete a fleet that is no longer in use

This example attempts to delete a fleet that has been scaled down to zero instances. If the fleet capacity is not zero, the request fails with an HTTP 400 error.

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

Sample Request

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

If delete is successful:

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

If delete is not successful:

Status: 400 Bad Request   RequestId: 99764159-4a57-11e7-af99-e5821c0e52da   Time: 177ms
{"__type": "com.amazonaws.gameliftapi.v20151001#InvalidRequestException", "Message": "Unable to terminate fleet-8e5a52a6-3261-4217-9a21-938b247c3db6: Max instance count must be 0."}

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

This operation is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

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 call can affect three types of 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, GameLift FleetIQ can begin deleting resources. If any of the delete operations fail, the game server group is placed in ERROR status.

GameLift FleetIQ emits delete events to Amazon CloudWatch.

Learn more

GameLift FleetIQ Guide

Related operations

- CreateGameServerGroup (p. 35)
- ListGameServerGroups (p. 226)
- DescribeGameServerGroup (p. 153)
- UpdateGameServerGroup (p. 331)
- DeleteGameServerGroup (p. 94)
- ResumeGameServerGroup (p. 258)
- SuspendGameServerGroup (p. 297)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.
In the following list, the required parameters are described first.

**GameServerGroupName (p. 94)**

The unique identifier of the game server group to delete. Use either the GameServerGroup (p. 389) 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 (p. 94)**

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

- **SAFE_DELETE** – Terminates the game server group and EC2 Auto Scaling group only when it has no game servers that are in IN_USE status.
- **FORCE_DELETE** – Terminates the game server group, including all active game servers regardless of their utilization status, and the EC2 Auto Scaling group.
- **RETAIN** – Does a safe delete of the game server group but retains the 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 (p. 95)**

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

Type: GameServerGroup (p. 389) object

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

**UnauthorizedException**

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

HTTP Status Code: 400

**Example**

**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**

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

CLI command:
aws fiesta delete-game-server-group \
  --game-server-group MegaFrogServers_NA \
  --delete-option SAFE_DELETE

Sample Response

```json
{
  "GameServerGroup": {
    "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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DeleteGameSessionQueue

Deletes a game session queue. This action means that any StartGameSessionPlacement requests that reference this queue will fail. To delete a queue, specify the queue name.

**Learn more**

Using Multi-Region Queues

**Related operations**

- CreateGameSessionQueue (p. 50)
- DescribeGameSessionQueues (p. 164)
- UpdateGameSessionQueue (p. 340)
- DeleteGameSessionQueue (p. 98)

**Request Syntax**

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

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**Name (p. 98)**

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 (p. 460).
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

A service resource associated with the request could not be found. Clients should not retry such requests.

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
- AWS SDK for JavaScript
- 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.

Related operations

- CreateMatchmakingConfiguration (p. 55)
- DescribeMatchmakingConfigurations (p. 178)
- UpdateMatchmakingConfiguration (p. 343)
- DeleteMatchmakingConfiguration (p. 100)
- CreateMatchmakingRuleSet (p. 61)
- DescribeMatchmakingRuleSets (p. 182)
- ValidateMatchmakingRuleSet (p. 356)
- DeleteMatchmakingRuleSet (p. 102)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

Name (p. 100)

A unique identifier for a 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 (p. 460).
**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

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
- AWS SDK for JavaScript
- 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

Related operations
- CreateMatchmakingConfiguration (p. 55)
- DescribeMatchmakingConfigurations (p. 178)
- UpdateMatchmakingConfiguration (p. 343)
- DeleteMatchmakingConfiguration (p. 100)
- CreateMatchmakingRuleSet (p. 61)
- DescribeMatchmakingRuleSets (p. 182)
- ValidateMatchmakingRuleSet (p. 356)
- DeleteMatchmakingRuleSet (p. 102)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**Name (p. 102)**

A unique identifier for a 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 (p. 460).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

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

Deletes a fleet scaling policy. This action means that the policy is no longer in force and 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, call StopFleetActions (p. 289). This operation suspends all policies for the fleet.

- DescribeFleetCapacity (p. 132)
- UpdateFleetCapacity (p. 318)
- DescribeEC2InstanceLimits (p. 123)
- Manage scaling policies:
  - PutScalingPolicy (p. 239) (auto-scaling)
  - DescribeScalingPolicies (p. 193) (auto-scaling)
  - DeleteScalingPolicy (p. 104) (auto-scaling)
- Manage fleet actions:
  - StartFleetActions (p. 271)
  - StopFleetActions (p. 289)

Request Syntax

```json
{
  "FleetId": "string",
  "Name": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**FleetId (p. 104)**

A unique identifier for a 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 (p. 104)**

A descriptive label that is associated with a scaling policy. Policy names do not need to be unique.

Type: String

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 (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

UnauthorizedException

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

HTTP Status Code: 400

Example

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

Deletes a Realtime script. This action 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 operations

- CreateScript (p. 71)
- ListScripts (p. 232)
- DescribeScript (p. 198)
- UpdateScript (p. 351)
- DeleteScript (p. 107)

Request Syntax

```json
{
    "ScriptId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**ScriptId (p. 107)**

A unique identifier for a 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 (p. 460).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

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

Example

Delete an existing script

Sample Request

```json
{
   "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
• AWS SDK for JavaScript
• 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, call DeleteVpcPeeringConnection (p. 112).

- CreateVpcPeeringAuthorization (p. 77)
- DescribeVpcPeeringAuthorizations (p. 201)
- DeleteVpcPeeringAuthorization (p. 110)
- CreateVpcPeeringConnection (p. 82)
- DescribeVpcPeeringConnections (p. 203)
- DeleteVpcPeeringConnection (p. 112)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**GameLiftAwsAccountId (p. 110)**

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


Required: Yes

**PeerVpcId (p. 110)**

A unique identifier for a VPC with resources to be accessed by your Amazon GameLift fleet. The VPC must be in the same Region where your fleet is deployed. Look up a VPC ID using the VPC Dashboard in the AWS Management Console. Learn more about VPC peering in VPC Peering with Amazon GameLift Fleets.

Type: String


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 (p. 460).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

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
- AWS SDK for JavaScript
- 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. You can check for an authorization by calling DescribeVpcPeeringAuthorizations (p. 201) or request a new one using CreateVpcPeeringAuthorization (p. 77).

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.

- CreateVpcPeeringAuthorization (p. 77)
- DescribeVpcPeeringAuthorizations (p. 201)
- DeleteVpcPeeringAuthorization (p. 110)
- CreateVpcPeeringConnection (p. 82)
- DescribeVpcPeeringConnections (p. 203)
- DeleteVpcPeeringConnection (p. 112)

Request Syntax

```json
{
   "FleetId": "string",
   "VpcPeeringConnectionId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**FleetId (p. 112)**

A unique identifier for a 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 (p. 112)**

A unique identifier for a VPC peering connection. This value is included in the VpcPeeringConnection (p. 455) object, which can be retrieved by calling DescribeVpcPeeringConnections (p. 203).

Type: String

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 (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

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

This operation is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

Removes the game server resource from the 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

GameLift FleetIQ Guide

Related operations

- RegisterGameServer (p. 247)
- ListGameServers (p. 229)
- ClaimGameServer (p. 8)
- DescribeGameServer (p. 149)
- UpdateGameServer (p. 326)
- DeregisterGameServer (p. 114)

Request Syntax

```json
{
    "GameServerGroupName": "string",
    "GameServerId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**GameServerGroupName (p. 114)**

An identifier for the game server group where the game server to be deregistered is running. Use either the GameServerGroup (p. 389) 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
GameServerId (p. 114)

The identifier for the game server to be deregistered.

Type: String
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 (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

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
- AWS SDK for JavaScript
See Also

- 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.

- CreateAlias (p. 13)
- ListAliases (p. 214)
- DescribeAlias (p. 117)
- UpdateAlias (p. 307)
- DeleteAlias (p. 86)
- ResolveAlias (p. 255)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**AliasId (p. 117)**

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

```json
{
    "Alias": {
        "AliasArn": "string",
        "AliasId": "string",
        "CreationTime": number,
        "Description": "string",
        "LastUpdatedTime": number,
        "Name": "string",
        "RoutingStrategy": {
            "FleetId": "string",
            "Message": "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 (p. 117)**

The requested alias resource.

Type: **Alias** (p. 360) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

**UnauthorizedException**

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

HTTP Status Code: 401

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
• AWS SDK for JavaScript
• 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

Related operations
• CreateBuild (p. 17)
• ListBuilds (p. 217)
• DescribeBuild (p. 120)
• UpdateBuild (p. 310)
• DeleteBuild (p. 88)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

**BuildId (p. 120)**

A unique identifier for a 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

```json
{
   "Build": {
      "BuildArn": "string",
      "BuildId": "string",
      "CreationTime": number,
      "Name": "string",
      "OperatingSystem": "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 (p. 120)

- Set of properties describing the requested build.
  
  Type: Build (p. 365) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

- A service resource associated with the request could not be found. Clients should not retry such requests.

  HTTP Status Code: 400

UnauthorizedException

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

  HTTP Status Code: 400

Example

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",
    "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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeEC2InstanceLimits

Retrieves the following information for the specified EC2 instance type:

- Maximum number of instances allowed per AWS account (service limit).
- Current usage for the AWS account.

To learn more about the capabilities of each instance type, see Amazon EC2 Instance Types. Note that the instance types offered may vary depending on the region.

Learn more
Setting up GameLift Fleets

Related operations
- CreateFleet (p. 23)
- ListFleets (p. 222)
- DeleteFleet (p. 91)
- DescribeFleetAttributes (p. 126)
- UpdateFleetAttributes (p. 314)
- StartFleetActions (p. 271) or StopFleetActions (p. 289)

Request Syntax

```json
{
    "EC2InstanceType": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

EC2InstanceType (p. 123)

Name of an 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. Amazon GameLift supports the following EC2 instance types. See Amazon EC2 Instance Types for detailed descriptions. Leave this parameter blank to retrieve limits for all 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 |
Response Syntax

```json
{
   "EC2InstanceLimits": [
      {
         "CurrentInstances": number,
         "EC2InstanceType": "string",
         "InstanceLimit": 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.

**EC2InstanceLimits (p. 124)**

The maximum number of instances for the specified instance type.

Type: Array of EC2InstanceLimit (p. 371) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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
Example

Request service limits for an EC2 instance type

This example retrieves the maximum allowed instances and current instances in use for a specified EC2 instance type in the current Region. The result indicates that only five of the allowed twenty instances are being used.

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

Sample Request

```json
{
    "EC2InstanceType": "m5.large"
}
```

Sample Response

```json
{
    "EC2InstanceLimits": [
    {
        "EC2InstanceType": "m5.large",
        "CurrentInstances": 5,
        "InstanceLimit": 20
    }
    ]
}
```

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

Retrieves core properties, including configuration, status, and metadata, for a fleet.

To get attributes for one or more fleets, provide a list of fleet IDs or fleet ARNs. To get attributes for all fleets, do not specify 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 (p. 376) object is returned for each fleet requested, unless the fleet identifier is not found.

Note
Some API actions 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 number.

Learn more
Setting up GameLift Fleets

Related operations
• CreateFleet (p. 23)
• ListFleets (p. 222)
• DeleteFleet (p. 91)
• Describe fleets:
  • DescribeFleetAttributes (p. 126)
  • DescribeFleetCapacity (p. 132)
  • DescribeFleetPortSettings (p. 141)
  • DescribeFleetUtilization (p. 144)
  • DescribeRuntimeConfiguration (p. 189)
  • DescribeEC2InstanceLimits (p. 123)
  • DescribeFleetEvents (p. 136)
• UpdateFleetAttributes (p. 314)
• StartFleetActions (p. 271) or StopFleetActions (p. 289)

Request Syntax

```json
{
  "FleetIds": [ "string" ],
  "Limit": number,
  "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

FleetIds (p. 126)

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. If the list of fleet
Response Syntax

identifiers includes fleets that don't currently exist, the request succeeds but no attributes for that fleet are returned.

Type: Array of strings

Array Members: Minimum number of 1 item.

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

Required: No

Limit (p. 126)

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 (p. 126)

Token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this action. 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


Required: No

Response Syntax

```json
{
    "FleetAttributes": [
        {
            "BuildArn": "string",
            "BuildId": "string",
            "CertificateConfiguration": {
                "CertificateType": "string"
            },
            "CreationTime": number,
            "Description": "string",
            "FleetArn": "string",
            "FleetId": "string",
            "FleetType": "string",
            "InstanceRoleArn": "string",
            "InstanceType": "string",
            "LogPaths": [ "string" ],
            "MetricGroups": [ "string" ],
            "Name": "string",
            "NewGameSessionProtectionPolicy": "string",
            "OperatingSystem": "string",
            "ResourceCreationLimitPolicy": {
                "NewGameSessionsPerCreator": number,
                "PolicyPeriodInMinutes": number
            },
            "ScriptArn": "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 (p. 127)

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 (p. 376) objects

NextToken (p. 127)

Token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String


Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

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 fleet attributes for two specified 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",
      "ServerLaunchPath": "C:\game\MegaFrogRace_Server.exe",
      "ServerLaunchParameters": "-gamelift_start_server",
      "NewGameSessionProtectionPolicy": "NoProtection",
      "OperatingSystem": "WINDOWS_2012",
      "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,
    }
  ]
}
```
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

```json
{
  "Limit": 1,
  "NextToken": "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC01NWYxZTZmMS1jYjI5ZGFkNDY2MDQyYzY0NmMwIn0", // eyJhd3NBY2NvdW50SWQiOiJidWlsZC01NWYxZTZmMS1jYjI5ZGFkNDY2MDQyYzY0NmMwIn0
}
```

Sample Response

```json
{
  "FleetAttributes": [
    {
      "FleetId": "fleet-1111aaaa-22bb-33cc-44dd-5555555566ff",
      "FleetArn": "arn:aws:gamelift:us-west-2::fleet/fleet-1111aaaa-22bb-33cc-44dd-5555555566ff",
      "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_2012",
      "MetricGroups": [
        "default"
      ],
      "CertificateConfiguration": {
        "CertificateType": "GENERATED"
      }
    }
  ]
}
```
"NextToken":
"eyJhd3NBY2NvdW50SWQiOnsicyI6IjQwMTY4MDEwMjY5NCJ9LCJmbGVldElkIjp7InMiOiJmbGVldC00ZjcyY2E4ZS1iMmVjLTQ3N2UtODg4ZS1jMDFiZTUxOTc3Y2QifX0="

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

Retrieves the current capacity statistics for one or more fleets. These statistics present a snapshot of the fleet's instances and provide insight on current or imminent scaling activity. To get statistics on game hosting activity in the fleet, see DescribeFleetUtilization (p. 144).

You can request capacity for all fleets or specify a list of one or more fleet identifiers. When requesting multiple fleets, use the pagination parameters to retrieve results as a set of sequential pages. If successful, a FleetCapacity (p. 381) object is returned for each requested fleet ID. When a list of fleet IDs is provided, attribute objects are returned only for fleets that currently exist.

Note
Some API actions 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 GameLift Fleets
GameLift Metrics for Fleets

Related operations
- CreateFleet (p. 23)
- ListFleets (p. 222)
- DeleteFleet (p. 91)
- Describe fleets:
  - DescribeFleetAttributes (p. 126)
  - DescribeFleetCapacity (p. 132)
  - DescribeFleetPortSettings (p. 141)
  - DescribeFleetUtilization (p. 144)
  - DescribeRuntimeConfiguration (p. 189)
  - DescribeEC2InstanceLimits (p. 123)
  - DescribeFleetEvents (p. 136)
  - UpdateFleetAttributes (p. 314)
  - StartFleetActions (p. 271) or StopFleetActions (p. 289)

Request Syntax

```
{
  "FleetIds": [ "string" ],
  "Limit": number,
  "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

Note
In the following list, the required parameters are described first.
FleetIds (p. 132)

A unique identifier for a fleet(s) to retrieve capacity information for. You can use either the fleet ID or ARN value.

Type: Array of strings

Array Members: Minimum number of 1 item.

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

Required: No

Limit (p. 132)

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 (p. 132)

Token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this action. 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


Required: No

Response Syntax

```
{
  "FleetCapacity": [
    {
      "FleetId": "string",
      "InstanceCounts": {
        "ACTIVE": number,
        "DESIRED": number,
        "IDLE": number,
        "MAXIMUM": number,
        "MINIMUM": number,
        "PENDING": number,
        "TERMINATING": number
      },
      "InstanceType": "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 (p. 133)

A collection of objects containing capacity information for each requested fleet ID. Leave this parameter empty to retrieve capacity information for all fleets.

Type: Array of FleetCapacity (p. 381) objects

NextToken (p. 133)

Token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String


Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

UnauthorizedException

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

HTTP Status Code: 400

Example

Request capacity status for a list of fleets

This example retrieves fleet capacity information for two specified fleets. As shown, the second fleet listed is in the middle of a scale down event, as 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",
      "InstanceType": "c5.large",
      "InstanceCounts": {
        "DESIRED": 10,
        "MINIMUM": 1,
        "MAXIMUM": 20,
        "PENDING": 0,
        "ACTIVE": 10,
        "IDLE": 3,
        "TERMINATING": 0
      }
    },
    {
      "FleetId": "fleet-1111aaaaa-22bb-33cc-44dd-5555eeee66ff",
      "InstanceType": "c5.large",
      "InstanceCounts": {
        "DESIRED": 13,
        "MINIMUM": 1,
        "MAXIMUM": 20,
        "PENDING": 0,
        "ACTIVE": 15,
        "IDLE": 2,
        "TERMINATING": 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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeFleetEvents

Retrieves entries from the specified fleet's event log. 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 GameLift Fleets

Related operations

• CreateFleet (p. 23)
• ListFleets (p. 222)
• DeleteFleet (p. 91)
• Describe fleets:
  • DescribeFleetAttributes (p. 126)
  • DescribeFleetCapacity (p. 132)
  • DescribeFleetPortSettings (p. 141)
  • DescribeFleetUtilization (p. 144)
  • DescribeRuntimeConfiguration (p. 189)
  • DescribeEC2InstanceLimits (p. 123)
  • DescribeFleetEvents (p. 136)
• UpdateFleetAttributes (p. 314)
• StartFleetActions (p. 271) or StopFleetActions (p. 289)

Request Syntax

```json
{
  "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 (p. 458).

The request accepts the following data in JSON format.

Note

In the following list, the required parameters are described first.

FleetId (p. 136)

A unique identifier for a fleet to get event logs for. You can use either the fleet ID or ARN value.

Type: String
Response Syntax

```json
{
    "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 (p. 137)**

A collection of objects containing event log entries for the specified fleet.

Type: Array of [Event (p. 373)] objects

**NextToken (p. 137)**

Token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String


Errors

For information about the errors that are common to all actions, see [Common Errors (p. 460)].

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

**UnauthorizedException**

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

HTTP Status Code: 400

Example

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**

```json
{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "StartTime": 1579647600,
    "EndTime": 1579649400,
    "Limit": 5
}
```

**Sample Response**

```json
{
    "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-a98e-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": "3bf217d0-1d44-42f9-99a7-62df27741084",
            "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
        }
    ]
}
```
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
- AWS SDK for JavaScript
- 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 use connections that fall in this range.

To get a fleet's inbound connection permissions, specify the fleet's unique identifier. If successful, a collection of IpPermission (p. 414) objects is returned for the requested fleet ID. If the requested fleet has been deleted, the result set is empty.

Learn more

Setting up GameLift Fleets

Related operations

- CreateFleet (p. 23)
- ListFleets (p. 222)
- DeleteFleet (p. 91)
- Describe fleets:
  - DescribeFleetAttributes (p. 126)
  - DescribeFleetCapacity (p. 132)
  - DescribeFleetPortSettings (p. 141)
  - DescribeFleetUtilization (p. 144)
  - DescribeRuntimeConfiguration (p. 189)
  - DescribeEC2InstanceLimits (p. 123)
  - DescribeFleetEvents (p. 136)
  - UpdateFleetAttributes (p. 314)
  - StartFleetActions (p. 271) or StopFleetActions (p. 289)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**FleetId (p. 141)**

A unique identifier for a fleet to retrieve port settings for. You can use either the fleet ID or ARN value.

Type: String
Response Syntax

```
{
  "InboundPermissions": [
    {
      "FromPort": number,
      "IpRange": "string",
      "Protocol": "string",
      "ToPort": 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.

**InboundPermissions (p. 142)**

The port settings for the requested fleet ID.

Type: Array of **IpPermission (p. 414)** objects

Array Members: Maximum number of 50 items.

Errors

For information about the errors that are common to all actions, see **Common Errors (p. 460)**.

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

**UnauthorizedException**

The client failed authentication. Clients should not retry such requests.
HTTP Status Code: 400

Example

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

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

Sample Response

```json
{
  "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"
    }
  ]
}
```

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

Retrieves utilization statistics for one or more fleets. These statistics provide insight into how available hosting resources are currently being used. To get statistics on available hosting resources, see DescribeFleetCapacity (p. 132).

You can request utilization data for all fleets, or specify a list of one or more fleet IDs. When requesting multiple fleets, use the pagination parameters to retrieve results as a set of sequential pages. If successful, a FleetUtilization (p. 383) object is returned for each requested fleet ID, unless the fleet identifier is not found.

Note
Some API actions 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 GameLift Fleets
GameLift Metrics for Fleets

Related operations

• CreateFleet (p. 23)
• ListFleets (p. 222)
• DeleteFleet (p. 91)
• Describe fleets:
  • DescribeFleetAttributes (p. 126)
  • DescribeFleetCapacity (p. 132)
  • DescribeFleetPortSettings (p. 141)
  • DescribeFleetUtilization (p. 144)
  • DescribeRuntimeConfiguration (p. 189)
  • DescribeEC2InstanceLimits (p. 123)
  • DescribeFleetEvents (p. 136)
  • UpdateFleetAttributes (p. 314)
  • StartFleetActions (p. 271) or StopFleetActions (p. 289)

Request Syntax

```json
{
  "FleetIds": [ "string" ],
  "Limit": number,
  "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

Note
In the following list, the required parameters are described first.
FleetIds (p. 144)

A unique identifier for a fleet(s) 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. If the list of fleet identifiers includes fleets that don't currently exist, the request succeeds but no attributes for that fleet are returned.

Type: Array of strings

Array Members: Minimum number of 1 item.

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

Required: No

Limit (p. 144)

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 (p. 144)

Token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this action. 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


Required: No

Response Syntax

{  "FleetUtilization": [  {  "ActiveGameSessionCount": number,  "ActiveServerProcessCount": number,  "CurrentPlayerSessionCount": number,  "FleetId": "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 (p. 145)**

A collection of objects containing utilization information for each requested fleet ID.

Type: Array of FleetUtilization (p. 383) objects

**NextToken (p. 145)**

Token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String


**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

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 one specified fleet.

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

**Sample Request**

```json
{
    "FleetIds": ["fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"]
}
```
Sample Response

```json
{  "FleetUtilization": [  {   "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",   "ActiveServerProcessCount": 100,   "ActiveGameSessionCount": 62,   "CurrentPlayerSessionCount": 329,   "MaximumPlayerSessionCount": 1000  }  ] }
```

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.

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

Sample Request

```json
{  "Limit": 2,  "NextToken": "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC01NWYxZTZmMS1jY2FlTGFyMyIsImV4aXJldGl2ZSI6ICJjY2FlTGFyMyIsInVzZXJ2ZXIiOnsibW9kZXkiOnsib3JnYW5hbWUiOnsib3JnYW5hbWU6LyI6XCJtZGl0dW5hdGFEZWNyYWQiXX0sib2lkIjoiMjMwIiwibWFwZWF0dGViIjoiMjIwMDAxNDUwMDAiXX1dLCJidWlsZElkIjoiMjIwMDAxNDUxNjZmIiwidmFsdWVzIjpbIlVTRVJFQVRJIl0sInR5cGUiOiJ1c2VyIiwiY2xpZW50IjoiIn0="}
```

Sample Response

```json
{  "FleetUtilization": [  {   "FleetId": "fleet-1111aaaa-22bb-33cc-44dd-5555eeee66ff",   "ActiveServerProcessCount": 100,   "ActiveGameSessionCount": 13,   "CurrentPlayerSessionCount": 98,   "MaximumPlayerSessionCount": 1000  },  {   "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",   "ActiveServerProcessCount": 100,   "ActiveGameSessionCount": 62,   "CurrentPlayerSessionCount": 329,   "MaximumPlayerSessionCount": 1000  }  ],  "NextToken": "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC01NWYxZTZmMS1jY2FlTGFyMyIsImV4aXJldGl2ZSI6ICJjY2FlTGFyMyIsInVzZXJ2ZXIiOnsibW9kZXkiOnsib3JnYW5hbWUiOnsib3JnYW5hbWU6LyI6XCJtZGl0dW5hdGFEZWNyYWQiXX0sib2lkIjoiMjMwIiwibWFwZWF0dGViIjoiMjIwMDAxNDUwMDAiXX1dLCJidWlsZElkIjoiMjIwMDAxNDUxNjZmIiwidmFsdWVzIjpbIlVTRVJFQVRJIl0sInR5cGUiOiJ1c2VyIiwiY2xpZW50IjoiIn0="}
```

See Also

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

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

This operation is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

Retrieves information for a game server resource. Information includes the game server statuses, 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
GameLift FleetIQ Guide

Related operations
• RegisterGameServer (p. 247)
• ListGameServers (p. 229)
• ClaimGameServer (p. 8)
• DescribeGameServer (p. 149)
• UpdateGameServer (p. 326)
• DeregisterGameServer (p. 114)

Request Syntax

```json
{
    "GameServerGroupName": "string",
    "GameServerId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

GameServerGroupName (p. 149)

An identifier for the game server group where the game server is running. Use either the GameServerGroup (p. 389) 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

GameServerId (p. 149)

The identifier for the game server to be retrieved.
Response Syntax

```
{
  "GameServer": {
    "ClaimStatus": "string",
    "ConnectionInfo": "string",
    "CustomSortKey": "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 (p. 150)**

Object that describes the requested game server resource.

Type: GameServer (p. 386) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

UnauthorizedException

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

HTTP Status Code: 400

Example

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

```json
{
  "GameServerGroupName": "MegaFrogServers_NA",
  "GameServerId": "mega-frog-game-12345678"
}
```

CLI command:

```bash
aws fiesta describe-game-server \
  --game-server-group-name MegaFrogServers_NA \
  --game-server-id mega-frog-game-12345678
```

Sample Response

```json
{
  "GameServer": {
    "ClaimStatus": ",",
    "ConnectionInfo": "192.0.2.0.80",
    "CustomSortKey": ",",
    "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:
See Also

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

This operation is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

Retrieves information on a game server group.

To get attributes for a game server group, provide a group name or ARN value. If successful, a GameServerGroup (p. 389) object is returned.

Learn more

GameLift FleetIQ Guide

Related operations

- CreateGameServerGroup (p. 35)
- ListGameServerGroups (p. 226)
- DescribeGameServerGroup (p. 153)
- UpdateGameServerGroup (p. 331)
- DeleteGameServerGroup (p. 94)
- ResumeGameServerGroup (p. 258)
- SuspendGameServerGroup (p. 297)

Request Syntax

```json
{
   "GameServerGroupName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

**GameServerGroupName (p. 153)**

The unique identifier for the game server group being requested. Use either the GameServerGroup (p. 389) 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

```json
{
  "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 (p. 154)

An object that describes the requested game server group resource.

Type: GameServerGroup (p. 389) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400
UnauthorizedException

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

HTTP Status Code: 400

Example

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 fiesta describe-game-server-group \ 
   --game-server-group-name MegaFrogServers_NA
```

Sample Response

```
{
    "GameServerGroup": {
        "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
• AWS SDK for JavaScript
• AWS SDK for PHP V3
• AWS SDK for Python
• AWS SDK for Ruby V3
DescribeGameSessionDetails

Retrieves properties, including the protection policy in force, for one or more game sessions. This action can be used in several ways: (1) provide a GameSessionId or GameSessionArn to request details for a specific game session; (2) provide either a FleetId or an AliasId to request properties for all game sessions running on a fleet.

To get game session record(s), specify just one of the following: game session ID, fleet ID, or alias ID. You can filter this request by game session status. Use the pagination parameters to retrieve results as a set of sequential pages. If successful, a GameSessionDetail (p. 400) object is returned for each session matching the request.

- CreateGameSession (p. 44)
- DescribeGameSessions (p. 167)
- DescribeGameSessionDetails (p. 157)
- SearchGameSessions (p. 262)
- UpdateGameSession (p. 336)
- GetGameSessionLogUrl (p. 206)

Game session placements
- StartGameSessionPlacement (p. 274)
- DescribeGameSessionPlacement (p. 161)
- StopGameSessionPlacement (p. 292)

Request Syntax

```json
{
  "AliasId": "string",
  "FleetId": "string",
  "GameSessionId": "string",
  "Limit": number,
  "NextToken": "string",
  "StatusFilter": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**AliasId (p. 157)**

A unique identifier for an 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/\S+$

Required: No
FleetId (p. 157)
A unique identifier for a 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/\S+\S+
Required: No

GameSessionId (p. 157)
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 (p. 157)
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 (p. 157)
Token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this action. To start at the beginning of the result set, do not specify a value.
Type: String
Required: No

StatusFilter (p. 157)
Game session status to filter results on. Possible game session statuses include ACTIVE, TERMINATED, ACTIVATING and TERMINATING (the last two are transitory).
Type: String
Required: No

Response Syntax
```json
{
    "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",
"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 (p. 158)

A collection of objects containing game session properties and the protection policy currently in force for each session matching the request.

Type: Array of GameSessionDetail (p. 400) objects

NextToken (p. 158)

Token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String


Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

TerminalRoutingStrategyException

The service is unable to resolve the routing for a particular alias because it has a terminal RoutingStrategy (p. 437) 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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeGameSessionPlacement

Retrieves properties and current status of a game session placement request. To get game session placement details, specify the placement ID. If successful, a GameSessionPlacement (p. 401) object is returned.

- CreateGameSession (p. 44)
- DescribeGameSessions (p. 167)
- DescribeGameSessionDetails (p. 157)
- SearchGameSessions (p. 262)
- UpdateGameSession (p. 336)
- GetGameSessionLogUrl (p. 206)
- Game session placements
  - StartGameSessionPlacement (p. 274)
  - DescribeGameSessionPlacement (p. 161)
  - StopGameSessionPlacement (p. 292)

Request Syntax

```json
{
  "PlacementId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**PlacementId (p. 161)**

A unique identifier for a game session placement to retrieve.

Type: String


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

Required: Yes

Response Syntax

```json
{
  "GameSessionPlacement": {
    "DnsName": "string",
    "EndTime": number,
    "GameProperties": [
```
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 (p. 161)**

Object that describes the requested game session placement.

Type: GameSessionPlacement (p. 401) object

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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.
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
- AWS SDK for JavaScript
- 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. If successful, a GameSessionQueue (p. 405) object is returned for each requested queue. When specifying a list of queues, objects are returned only for queues that currently exist in the Region.

Learn more

View Your Queues

Related operations

- CreateGameSessionQueue (p. 50)
- DescribeGameSessionQueues (p. 164)
- UpdateGameSessionQueue (p. 340)
- DeleteGameSessionQueue (p. 98)

Request Syntax

```json
{
   "Limit": number,
   "Names": [ "string" ],
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**Limit (p. 164)**

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

**Names (p. 164)**

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.
Response Syntax

```
{
  "GameSessionQueues": [
    {
      "Destinations": [
        {
          "DestinationArn": "string"
        }
      ],
      "GameSessionQueueArn": "string",
      "Name": "string",
      "PlayerLatencyPolicies": [
        {
          "MaximumIndividualPlayerLatencyMilliseconds": number,
          "PolicyDurationSeconds": number
        }
      ],
      "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 (p. 165)**

A collection of objects that describe the requested game session queues.

Type: Array of GameSessionQueue (p. 405) objects

**NextToken (p. 165)**

A token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**InternalServerError**

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**

A service resource associated with the request could not be found. Clients should not retry such requests.

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

Retrieves a set of one or more game sessions. Request a specific game session or request all game sessions on a fleet. Alternatively, use SearchGameSessions (p. 262) to request a set of active game sessions that are filtered by certain criteria. To retrieve protection policy settings for game sessions, use DescribeGameSessionDetails (p. 157).

To get game sessions, specify one of the following: game session ID, fleet ID, or alias ID. You can filter this request by game session status. Use the pagination parameters to retrieve results as a set of sequential pages. If successful, a GameSession (p. 394) object is returned for each game session matching the request.

Available in Amazon GameLift Local.

- CreateGameSession (p. 44)
- DescribeGameSessions (p. 167)
- DescribeGameSessionDetails (p. 157)
- SearchGameSessions (p. 262)
- UpdateGameSession (p. 336)
- GetGameSessionLogUrl (p. 206)
- Game session placements
  - StartGameSessionPlacement (p. 274)
  - DescribeGameSessionPlacement (p. 161)
  - StopGameSessionPlacement (p. 292)

Request Syntax

```json
{
  "AliasId": "string",
  "FleetId": "string",
  "GameSessionId": "string",
  "Limit": number,
  "NextToken": "string",
  "StatusFilter": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**AliasId** (p. 167)

A unique identifier for an 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 (p. 167)

A unique identifier for a fleet to retrieve all 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 (p. 167)

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 (p. 167)

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 (p. 167)

Token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this action. To start at the beginning of the result set, do not specify a value.

Type: String


Required: No

#### StatusFilter (p. 167)

Game session status to filter results on. Possible game session statuses include ACTIVE, TERMINATED, ACTIVATING, and TERMINATING (the last two are transitory).

Type: String


Required: No

### Response Syntax

```json
{
   "GameSessions": [
```

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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 (p. 168)**

A collection of objects containing game session properties for each session matching the request.

Type: Array of GameSession (p. 394) objects

**NextToken (p. 168)**

Token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String


Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

TerminalRoutingStrategyException

The service is unable to resolve the routing for a particular alias because it has a terminal RoutingStrategy (p. 437) 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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
DescribeInstances

Retrieves information about a fleet's instances, including instance IDs. Use this action to get details on all instances in the fleet or get details on one specific instance.

To get a specific instance, specify fleet ID and instance ID. To get all instances in a fleet, specify a fleet ID only. Use the pagination parameters to retrieve results as a set of sequential pages. If successful, an Instance (p. 408) object is returned for each result.

Learn more

Remotely Access Fleet Instances

Debug Fleet Issues

Related operations

- DescribeInstances (p. 171)
- GetInstanceAccess (p. 209)

Request Syntax

```json
{
    "FleetId": "string",
    "InstanceId": "string",
    "Limit": number,
    "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

Note

In the following list, the required parameters are described first.

FleetId (p. 171)

A unique identifier for a fleet to retrieve instance information for. You can use either the fleet ID or ARN value.

Type: String

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

Required: Yes

InstanceId (p. 171)

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 (p. 171)

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 (p. 171)

Token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this action. To start at the beginning of the result set, do not specify a value.

Type: String


Required: No

Response Syntax

```json
{
  "Instances": [
    {
      "CreationTime": number,
      "DnsName": "string",
      "FleetId": "string",
      "InstanceId": "string",
      "IpAddress": "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 (p. 172)

A collection of objects containing properties for each instance returned.

Type: Array of Instance (p. 408) objects

NextToken (p. 172)

Token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String
Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

UnauthorizedException

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

HTTP Status Code: 400

Example

Get data on a fleet instance

This example requests information on one instance in a fleet. Instances are not returned in any particular order. If you want to get data on all instances in a fleet, omit the Limit parameter.

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

Sample Request

```plaintext
POST / HTTP/1.1
Host: gamelift.us-west-2.amazonaws.com;
Accept-Encoding: identity
Content-Length: 105
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.DescribeInstances

{"FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
"Limit": "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
- AWS SDK for JavaScript
- 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 status and--once a successful match is made--acquire connection information for the resulting new game session.

You can use this operation to track the progress of matchmaking requests (through polling) as an alternative to using event notifications. See more details on tracking matchmaking requests through polling or notifications in StartMatchmaking (p. 284).

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.

Learn more

Add FlexMatch to a Game Client

Set Up FlexMatch Event Notification

Related operations

• StartMatchmaking (p. 284)
• DescribeMatchmaking (p. 175)
• StopMatchmaking (p. 295)
• AcceptMatch (p. 5)
• StartMatchBackfill (p. 280)

Request Syntax

```json
{
   "TicketIds": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

TicketIds (p. 175)

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

```json
{
    "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 (p. 176)**

A collection of existing matchmaking ticket objects matching the request.
Type: Array of MatchmakingTicket (p. 425) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

Retrieves the details of FlexMatch matchmaking configurations. With this operation, you have the following options: (1) retrieve all existing configurations, (2) provide the names of one or more configurations to retrieve, 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

Related operations

- CreateMatchmakingConfiguration (p. 55)
- DescribeMatchmakingConfigurations (p. 178)
- UpdateMatchmakingConfiguration (p. 343)
- DeleteMatchmakingConfiguration (p. 100)
- CreateMatchmakingRuleSet (p. 61)
- DescribeMatchmakingRuleSets (p. 182)
- ValidateMatchmakingRuleSet (p. 356)
- DeleteMatchmakingRuleSet (p. 102)

Request Syntax

```json
{
  "Limit": number,
  "Names": [ "string" ],
  "NextToken": "string",
  "RuleSetName": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**Limit (p. 178)**

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 (p. 178)

A unique identifier for a 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 (p. 178)

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 action. To start at the beginning of the result set, do not specify a value.

Type: String


Required: No

RuleSetName (p. 178)

A unique identifier for a 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",
      "GameProperties": [
        {
          "Key": "string",
          "Value": "string"
        }
      ],
      "GameSessionData": "string",
      "GameSessionQueueArns": [ "string" ],
      "Name": "string",
      "NotificationTarget": "string",
      "RequestTimeoutSeconds": number,
      "RuleSetArn": "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 (p. 179)

A collection of requested matchmaking configurations.

Type: Array of MatchmakingConfiguration (p. 419) objects

NextToken (p. 179)

A token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String


Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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++
See Also

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

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

Related operations

- CreateMatchmakingConfiguration (p. 55)
- DescribeMatchmakingConfigurations (p. 178)
- UpdateMatchmakingConfiguration (p. 343)
- DeleteMatchmakingConfiguration (p. 100)
- CreateMatchmakingRuleSet (p. 61)
- DescribeMatchmakingRuleSets (p. 182)
- ValidateMatchmakingRuleSet (p. 356)
- DeleteMatchmakingRuleSet (p. 102)

Request Syntax

```
{
    "Limit": number,
    "Names": [ "string" ],
    "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**Limit (p. 182)**

The maximum number of results to return. Use this parameter with NextToken to get results as a set of sequential pages.

Type: Integer


Required: No

**Names (p. 182)**

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 (p. 182)**

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 action. To start at the beginning of the result set, do not specify a value.

Type: String


Required: No

**Response Syntax**

```json
{
    "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 (p. 183)**

A collection of requested matchmaking rule set objects.

Type: Array of MatchmakingRuleSet (p. 423) objects

**NextToken (p. 183)**

A token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String


**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 460).
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

A service resource associated with the request could not be found. 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
- AWS SDK for JavaScript
- 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 several ways: (1) provide a PlayerSessionId to request properties for a specific player session; (2) provide a GameSessionId to request properties for all player sessions in the specified game session; (3) provide a PlayerId to request properties for all player sessions of a specified player.

To get game session record(s), specify only one of the following: a player session ID, a game session ID, or a player ID. You can filter this request by player session status. Use the pagination parameters to retrieve results as a set of sequential pages. If successful, a PlayerSession (p. 433) object is returned for each session matching the request.

Available in Amazon GameLift Local.

- CreatePlayerSession (p. 64)
- CreatePlayerSessions (p. 67)
- DescribePlayerSessions (p. 185)
- Game session placements
  - StartGameSessionPlacement (p. 274)
  - DescribeGameSessionPlacement (p. 161)
  - StopGameSessionPlacement (p. 292)

Request Syntax

```json
{
  "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 (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**GameSessionId** (p. 185)

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 (p. 185)**

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 (p. 185)**

Token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this action. 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 (p. 185)**

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 (p. 185)**

A unique identifier for a player session to retrieve.

- **Type:** String
- **Pattern:** ^psess-\S+
- **Required:** No

**PlayerSessionStatusFilter (p. 185)**

Player session status to filter results on.

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

```json
{
    "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 (p. 187)**

Token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String


**PlayerSessions (p. 187)**

A collection of objects containing properties for each player session that matches the request.

Type: Array of PlayerSession (p. 433) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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

A service resource associated with the request could not be found. Clients should not retry such requests.

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
- AWS SDK for JavaScript
- 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 a runtime configuration, specify the fleet's unique identifier. If successful, a RuntimeConfiguration (p. 439) object is returned for the requested fleet. If the requested fleet has been deleted, the result set is empty.

Learn more

Setting up GameLift Fleets

Running Multiple Processes on a Fleet

Related operations

- CreateFleet (p. 23)
- ListFleets (p. 222)
- DeleteFleet (p. 91)
- Describe fleets:
  - DescribeFleetAttributes (p. 126)
  - DescribeFleetCapacity (p. 132)
  - DescribeFleetPortSettings (p. 141)
  - DescribeFleetUtilization (p. 144)
  - DescribeRuntimeConfiguration (p. 189)
  - DescribeEC2InstanceLimits (p. 123)
  - DescribeFleetEvents (p. 136)
  - UpdateFleetAttributes (p. 314)
  - StartFleetActions (p. 271) or StopFleetActions (p. 289)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**FleetId (p. 189)**

A unique identifier for a 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

```json
{
   "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 (p. 190)**

Instructions describing how server processes should be launched and maintained on each instance in the fleet.

Type: RuntimeConfiguration (p. 439) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400
UnauthorizedException

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

HTTP Status Code: 400

Example

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

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

Sample Response

```json
{
    "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
- AWS SDK for JavaScript

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See Also

- 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 (p. 443) objects is returned for the fleet.

A fleet may have all of its scaling policies suspended (StopFleetActions (p. 289)). This action does not affect the status of the scaling policies, which remains ACTIVE. To see whether a fleet's scaling policies are in force or suspended, call DescribeFleetAttributes (p. 126) and check the stopped actions.

- DescribeFleetCapacity (p. 132)
- UpdateFleetCapacity (p. 318)
- DescribeEC2InstanceLimits (p. 123)
- Manage scaling policies:
  - PutScalingPolicy (p. 239) (auto-scaling)
  - DescribeScalingPolicies (p. 193) (auto-scaling)
  - DeleteScalingPolicy (p. 104) (auto-scaling)
- Manage fleet actions:
  - StartFleetActions (p. 271)
  - StopFleetActions (p. 289)

Request Syntax

```json
{
  "FleetId": "string",
  "Limit": number,
  "NextToken": "string",
  "StatusFilter": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

**FleetId (p. 193)**

A unique identifier for a fleet to retrieve scaling policies for. You can use either the fleet ID or ARN value.

Type: String

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

Required: Yes
**Limit (p. 193)**

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 (p. 193)**

Token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this action. To start at the beginning of the result set, do not specify a value.

Type: String


Required: No

**StatusFilter (p. 193)**

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.
- **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

---

**Response Syntax**

```json
{
   "NextToken": "string",
   "ScalingPolicies": [
   {
      "ComparisonOperator": "string",
      "EvaluationPeriods": number,
      "FleetId": "string",
      "MetricName": "string",
      "Name": "string",
      "PolicyType": "string",
      "ScalingAdjustment": number,
      "ScalingAdjustmentType": "string",
      "TargetConfiguration": {
         "TargetValue": number
      },
      "Threshold": number
   }
   ]
}
```

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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 (p. 194)**

Token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String


**ScalingPolicies (p. 194)**

A collection of objects containing the scaling policies matching the request.

Type: Array of `ScalingPolicy (p. 443)` objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

**UnauthorizedException**

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

HTTP Status Code: 400

Example

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

## Sample Request

```plaintext
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
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:**

```bash
$aws gamelift describe-scaling-policies
--fleet-id "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa"
--limit "2"
--status-filter "ACTIVE"
```

## Sample Response

```plaintext
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",
            "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
            "PolicyType": "RuleBased",
            "Threshold": "1.0",
            "ScalingAdjustment": "10",
            "MetricName": "QueueDepth",
            "ScalingAdjustmentType": "PercentChangeInCapacity"
        }
    ],
```

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"NextToken":
"eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7ImMiOiJidWlsZC01NWYxZTZmMS1iYWQ5NjY0MjgwNzRkMzU3IiwiaWQiOiJidWlsZC01NWYxZTZmMS1iYWQ5NjY0MjgwNzRkMzU3Iiwib3JnYW50SWQiOnsic5IjwiaAQ==}\}

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
- AWS SDK for JavaScript
- 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 operations
• CreateScript (p. 71)
• ListScripts (p. 232)
• DescribeScript (p. 198)
• UpdateScript (p. 351)
• DeleteScript (p. 107)

Request Syntax

```json
{
   "ScriptId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

ScriptId (p. 198)

A unique identifier for a 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

```json
{
   "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** *(p. 198)*

A set of properties describing the requested script.

Type: **Script** *(p. 447)* object

Errors

For information about the errors that are common to all actions, see **Common Errors** *(p. 460).*

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

**UnauthorizedException**

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

HTTP Status Code: 400

Example

**View a script record**

**Sample Request**

```json
{
  
}
```
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
- AWS SDK for JavaScript
- 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.

- CreateVpcPeeringAuthorization (p. 77)
- DescribeVpcPeeringAuthorizations (p. 201)
- DeleteVpcPeeringAuthorization (p. 110)
- CreateVpcPeeringConnection (p. 82)
- DescribeVpcPeeringConnections (p. 203)
- DeleteVpcPeeringConnection (p. 112)

Response Syntax

```json
{
    "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 (p. 201)

A collection of objects that describe all valid VPC peering operations for the current AWS account.

Type: Array of VpcPeeringAuthorization (p. 453) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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
- AWS SDK for JavaScript
- 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.

- CreateVpcPeeringAuthorization (p. 77)
- DescribeVpcPeeringAuthorizations (p. 201)
- DeleteVpcPeeringAuthorization (p. 110)
- CreateVpcPeeringConnection (p. 82)
- DescribeVpcPeeringConnections (p. 203)
- DeleteVpcPeeringConnection (p. 112)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

FleetId (p. 203)

A unique identifier for a fleet. You can use either the fleet ID or ARN value.

Type: String

Pattern: ^fleet-\S+

Required: No

Response Syntax

```json
{
   "VpcPeeringConnections": [
   {
      "FleetArn": "string",
      "FleetId": "string",
      "GameLiftVpcId": "string",
      "IpV4CidrBlock": "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.

VpcPeeringConnections (p. 203)

A collection of VPC peering connection records that match the request.

Type: Array of VpcPeeringConnection (p. 455) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

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
• AWS SDK for JavaScript
• 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. 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.

- CreateGameSession (p. 44)
- DescribeGameSessions (p. 167)
- DescribeGameSessionDetails (p. 157)
- SearchGameSessions (p. 262)
- UpdateGameSession (p. 336)
- GetGameSessionLogUrl (p. 206)

Game session placements
- StartGameSessionPlacement (p. 274)
- DescribeGameSessionPlacement (p. 161)
- StopGameSessionPlacement (p. 292)

Request Syntax

```json
{
    "GameSessionId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

GameSessionId (p. 206)

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

```json
{
}
```
"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 (p. 206)

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


Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

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
See Also

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

Requests remote access to a fleet instance. Remote access is useful for debugging, gathering benchmarking data, or observing activity in real time.

To remotely access an instance, you need credentials that match the operating system of the instance. For a Windows instance, Amazon GameLift returns a user name and password as strings for use with a Windows Remote Desktop client. For a Linux instance, Amazon GameLift returns a user name and RSA private key, also as strings, for use with an SSH client. The private key must be saved in the proper format to a .pem file before using. If you're making this request using the AWS CLI, saving the secret can be handled as part of the GetInstanceAccess request, as shown in one of the examples for this action.

To request access to a specific instance, specify the IDs of both the instance and the fleet it belongs to. You can retrieve a fleet's instance IDs by calling DescribeInstances (p. 171). If successful, an InstanceAccess (p. 410) object is returned that contains the instance's IP address and a set of credentials.

Learn more

Remotely Access Fleet Instances

Debug Fleet Issues

Related operations

• DescribeInstances (p. 171)
• GetInstanceAccess (p. 209)

Request Syntax

```json
{
    "FleetId": "string",
    "InstanceId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

Note

In the following list, the required parameters are described first.

**FleetId (p. 209)**

A unique identifier for a fleet that contains the instance you want access to. You can use either the fleet ID or ARN value. The fleet can be in any of the following statuses: ACTIVATING, ACTIVE, or ERROR. Fleets with an ERROR status may be accessible for a short time before they are deleted.

Type: String

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

Required: Yes
InstanceId (p. 209)

A unique identifier for an instance you want to get access to. 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 (p. 210)

The connection information for a fleet instance, including IP address and access credentials.

Type: InstanceAccess (p. 410) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.
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 running Linux.

If you’re calling GetInstanceAccess programmatically, as with the JSON syntax, you need to 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 store the RSA private key as a .pem file in the proper format. See the CLI syntax example, which saves the private key to a file called MyPrivateKey.pem. Once the private key is saved, update the file permissions with the following command:

$ chmod 400 MyPrivateKey.pem

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: 105
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.GetInstanceAccess

{"FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
 "InstanceId": "i-1111111a222b333c"
}
```

CLI syntax:

```
aws gamelift get-instance-access --fleet-id
"fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa" --instance-id "i-1111111a222b333c" --query
'InstanceAccess.Credentials.Secret' --output text > MyPrivateKey.pem
```

Sample Response

```
HTTP/1.1 200 OK
x-amzn-RequestId: b34f8665-EXAMPLE
Content-Type: application/x-amz-json-1.1
Content-Length: 1986
Date: Thu, 06 Apr 2017 00:48:07 GMT
```

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Amazon GameLift Service API Reference
Examples
{"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"
}

Get credentials for a Windows instance
This example requests a set of credentials to remotely connect to a ﬂeet instance running Windows.
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: 105
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.GetInstanceAccess
{"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"

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Sample Response

HTTP/1.1 200 OK
x-amzn-RequestId: b34f8665-EXAMPLE
Content-Type: application/x-amz-json-1.1
Content-Length: 1986
Date: Thu, 06 Apr 2017 00:48:07 GMT

{"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
- AWS SDK for JavaScript
- 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.

- CreateAlias (p. 13)
- ListAliases (p. 214)
- DescribeAlias (p. 117)
- UpdateAlias (p. 307)
- DeleteAlias (p. 86)
- ResolveAlias (p. 255)

**Request Syntax**

```json
{
   "Limit": number,
   "Name": "string",
   "NextToken": "string",
   "RoutingStrategyType": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

**Limit (p. 214)**

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 (p. 214)**

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 (p. 214)

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 action. 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 (p. 214)

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 (p. 437) 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 (p. 215)

A collection of alias resources that match the request parameters.
Type: Array of Alias (p. 360) objects

**NextToken (p. 215)**

A token that indicates where to resume retrieving results on the next call to this action. 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 (p. 460).

**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
- AWS SDK for JavaScript
- 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

Related operations

- CreateBuild (p. 17)
- ListBuilds (p. 217)
- DescribeBuild (p. 120)
- UpdateBuild (p. 310)
- DeleteBuild (p. 88)

Request Syntax

```json
{
    "Limit": number,
    "NextToken": "string",
    "Status": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

**Limit (p. 217)**

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 (p. 217)**

Token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this action. To start at the beginning of the result set, do not specify a value.

Type: String
Length Constraints: Minimum length of 1.
Required: No

**Status (p. 217)**

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",
            "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 (p. 218)**

A collection of build resources that match the request.

Type: Array of Build (p. 365) objects

**NextToken (p. 218)**

Token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String
Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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": "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC00NDRlZjQxZS1hM2I1LTQ2NDYtODJmMy0zYzI4ZTgxNjVjEXAMPLE="
}
```

**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_2012",
     "SizeOnDisk": 8567781,
     "Status": "READY",
     "Version": "12345.678"
  }
]
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

```json
{
    "Limit": 2,
    "Status": "FAILED"
}
```

Sample Response

```json
{
    "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",
            "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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListFleets

Retrieves a collection of fleet resources for this AWS account. You can filter the result set to find only those fleets that are deployed with a specific build or script. Use the pagination parameters to retrieve results in sequential pages.

**Note**
Fleet resources are not listed in a particular order.

**Learn more**
Setting up GameLift Fleets

**Related operations**
- CreateFleet (p. 23)
- ListFleets (p. 222)
- DeleteFleet (p. 91)
- DescribeFleetAttributes (p. 126)
- UpdateFleetAttributes (p. 314)
- StartFleetActions (p. 271) or StopFleetActions (p. 289)

**Request Syntax**

```json
{
   "BuildId": "string",
   "Limit": number,
   "NextToken": "string",
   "ScriptId": "string"
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see [Common Parameters](p. 458).

The request accepts the following data in JSON format.

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

**BuildId (p. 222)**

A unique identifier for a build to return fleets for. Use this parameter to return only fleets using a specified build. Use either the build ID or ARN value. To retrieve all fleets, do not include either a BuildId and ScriptId parameter.

Type: String

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

Required: No

**Limit (p. 222)**

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 (p. 222)

Token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this action. To start at the beginning of the result set, do not specify a value.

Type: String


Required: No

ScriptId (p. 222)

A unique identifier for a Realtime script to return fleets for. Use this parameter to return only fleets using a specified script. Use either the script ID or ARN value. To retrieve all fleets, leave this parameter empty.

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 (p. 223)

Set of fleet IDs matching the list request. You can retrieve additional information about all returned fleets by passing this result set to a call to DescribeFleetAttributes (p. 126), DescribeFleetCapacity (p. 132), or DescribeFleetUtilization (p. 144).

Type: Array of strings

Array Members: Minimum number of 1 item.

Pattern: ^fleet-\S+

NextToken (p. 223)

Token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

**UnauthorizedException**

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

HTTP Status Code: 400

Examples

List all fleets in the Region

This example retrieves the fleet IDs of all existing fleets in the current 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**

```json
{
    "Limit": 2,
    "NextToken": "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC01NWYxZTZmMS1iYjFkYTQwMjEXAMPLE1"
}
```

**Sample Response**

```json
{
    "FleetIds": [
        "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
        "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa"
    ]
}
```
List all fleets in the Region with a specific build or script

This example retrieves the IDs of fleets 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. Since this example does not specify the limit parameter, the results might 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-5555eee66ff"
}
```

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

This operation is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

Retrieves information on all game servers groups that exist in the current AWS account for the selected Region. Use the pagination parameters to retrieve results in a set of sequential pages.

Learn more

GameLift FleetIQ Guide

Related operations

- CreateGameServerGroup (p. 35)
- ListGameServerGroups (p. 226)
- DescribeGameServerGroup (p. 153)
- UpdateGameServerGroup (p. 331)
- DeleteGameServerGroup (p. 94)
- ResumeGameServerGroup (p. 258)
- SuspendGameServerGroup (p. 297)

Request Syntax

```json
{
   "Limit": number,
   "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**Limit (p. 226)**

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 (p. 226)**

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.
Response Syntax

Type: String
Required: No

Response Syntax

```json
{
   "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 (p. 227)

A collection of game server group objects that match the request.

Type: Array of GameServerGroup (p. 389) objects

NextToken (p. 227)

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

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).
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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListGameServers

This operation is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

Retrieves information on all game servers that are currently running in a specified game server group. If there are custom key sort values for your game servers, you can opt to have the returned list sorted based on these values. Use the pagination parameters to retrieve results in a set of sequential pages.

Learn more

GameLift FleetIQ Guide

Related operations

- RegisterGameServer (p. 247)
- ListGameServers (p. 229)
- ClaimGameServer (p. 8)
- DescribeGameServer (p. 149)
- UpdateGameServer (p. 326)
- DeregisterGameServer (p. 114)

Request Syntax

```json
{
   "GameServerGroupName": "string",
   "Limit": number,
   "NextToken": "string",
   "SortOrder": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**GameServerGroupName (p. 229)**

An identifier for the game server group for the game server you want to list. Use either the GameServerGroup (p. 389) 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 (p. 229)

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 (p. 229)

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
Required: No

SortOrder (p. 229)

Indicates how to sort the returned data based on the game servers’ custom key sort value. If this parameter is left empty, the list of game servers is returned in no particular order.

Type: String
Valid Values: ASCENDING | DESCENDING
Required: No

Response Syntax

```json
{
    "GameServers": [
        {
            "ClaimStatus": "string",
            "ConnectionInfo": "string",
            "CustomSortKey": "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 (p. 230)

A collection of game server objects that match the request.

Type: Array of GameServer (p. 386) objects

NextToken (p. 230)

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


Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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
- AWS SDK for JavaScript
- 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 operations

- CreateScript (p. 71)
- ListScripts (p. 232)
- DescribeScript (p. 198)
- UpdateScript (p. 351)
- DeleteScript (p. 107)

Request Syntax

```json
{
    "Limit": number,
    "NextToken": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**Limit (p. 232)**

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 (p. 232)**

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 action. To start at the beginning of the result set, do not specify a value.

Type: String

Length Constraints: Minimum length of 1.

Required: No
Response Syntax

```json
{
    "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 (p. 233)**

A token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String

Length Constraints: Minimum length of 1.

**Scripts (p. 233)**

A set of properties describing the requested script.

Type: Array of *Script (p. 447)* objects

Errors

For information about the errors that are common to all actions, see *Common Errors (p. 460).*

**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

Example

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

```json
{
    "Limit": 2,
    "NextToken": "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC00NDk2ZjQxZGQ5MzNjMzIwMCJ9",
}
```

CLI syntax:

```
aws gamelift list-scripts
    -limit 2
    -next-token "eyJhd3NBY2NvdW50SWQiOnsicyI6IjMwMjc3NjAxNjM5OCJ9LCJidWlsZElkIjp7InMiOiJidWlsZC00NDk2ZjQxZGQ5MzNjMzIwMCJ9"
```

Sample Response

```json
{
    "Scripts": [
        {
            "CreationTime": 1496708916.18,
            "Name": "My_Realtime_Script_2",
            "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555ee66ff",
            "SizeOnDisk": 0,
            "StorageLocation": {
                "Bucket": "my_realtime_script_files",
                "Key": "myRealtimeScript.zip"
            },
            "RoleArn": "arn:aws:iam::111122223333:role/GameLiftAccess",
            "ObjectVersion": null
        },
        {
            "CreationTime": 1495528748.555,
            "Name": "My_Realtime_Script_1",
            "ScriptId": "script-3333cccc-44dd-55ee-66ff-7777aaa88bb",
            "SizeOnDisk": 9000,
            "StorageLocation": {
                "Bucket": "prod-gamescale-scripts-us-west-2",
                "Key": "123456789012/script-1111aaaa-22bb-33cc-44dd-5555ee66ff"
            }
        }
    ],
    "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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
ListTagsForResource

Retrieves all tags that are assigned to a GameLift resource. Resource tags are used to organize AWS resources for a range of purposes. This action handles the permissions necessary to manage tags for the following GameLift resource types:

- Build
- Script
- Fleet
- Alias
- GameSessionQueue
- MatchmakingConfiguration
- MatchmakingRuleSet

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 operations

- TagResource (p. 301)
- UntagResource (p. 304)
- ListTagsForResource (p. 236)

Request Syntax

```json
{
    "ResourceARN": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**ResourceARN (p. 236)***

The Amazon Resource Name (ARN) that is assigned to and uniquely identifies the GameLift resource that you want to retrieve tags for. GameLift resource ARNs are included in the data object for the resource, which can be retrieved by calling a List or Describe action for the resource type.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.
Response Syntax

```json
{
   "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 (p. 237)**

The collection of tags that have been assigned to the specified resource.

Type: Array of Tag (p. 450) 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 (p. 460).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

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
- AWS SDK for JavaScript
- 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.

You can temporarily suspend all scaling policies for a fleet by calling StopFleetActions (p. 289) with the fleet action AUTO_SCALING. To resume scaling policies, call StartFleetActions (p. 271) with the same fleet action. To stop just one scaling policy—or to permanently remove it, you must delete the policy with DeleteScalingPolicy (p. 104).

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 (p. 451) 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.

- DescribeFleetCapacity (p. 132)
- UpdateFleetCapacity (p. 318)
- DescribeEC2InstanceLimits (p. 123)

- Manage scaling policies:
  - PutScalingPolicy (p. 239) (auto-scaling)
  - DescribeScalingPolicies (p. 193) (auto-scaling)
  - DeleteScalingPolicy (p. 104) (auto-scaling)

- Manage fleet actions:
  - StartFleetActions (p. 271)
  - StopFleetActions (p. 289)

**Request Syntax**

```json
{
    "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 (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**FleetId (p. 240)**

A unique identifier for a 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/\S+$

Required: Yes
MetricName (p. 240)

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

Required: Yes

Name (p. 240)

A descriptive label that is associated with a scaling policy. Policy names do not need to be unique. A fleet can have only one scaling policy with the same name.

Type: String


Required: Yes

ComparisonOperator (p. 240)

Comparison operator to use when measuring the metric against the threshold value.

Type: String

Valid Values: GreaterThanOrEqualToThreshold | GreaterThanThreshold | LessThanThreshold | LessThanOrEqualToThreshold

Required: No

EvaluationPeriods (p. 240)

Length of time (in minutes) the metric must be at or beyond the threshold before a scaling event is triggered.
PolicyType (p. 240)

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 (p. 240)

Amount of adjustment to make, based on the scaling adjustment type.

Type: Integer

Required: No

ScalingAdjustmentType (p. 240)

The type of adjustment to make to a fleet's instance count (see FleetCapacity (p. 381)):

- **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 (p. 240)

The settings for a target-based scaling policy.

Type: TargetConfiguration (p. 451) object

Required: No

Threshold (p. 240)

Metric value used to trigger a scaling event.

Type: Double

Required: No

Response Syntax

```json
{
}
```
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 (p. 242)

A descriptive label that is associated with a scaling policy. Policy names do not need to be unique.

Type: String


Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

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). Verify that the new policy has gone into effect by calling DescribeFleetAttributes (p. 126) to
check that auto-scaling actions for the fleet have not been stopped. Call DescribeScalingPolicies (p. 193) to view the newly created policy.

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
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
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++
See Also

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

This operation is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

Creates a new game server resource and notifies 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 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. When a game client or service requests a game server by calling ClaimGameServer (p. 8), this information is returned in the response.

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 in the process of shutting down as part of instance rebalancing or scale-down activity.

Learn more

GameLift FleetIQ Guide

Related operations

- RegisterGameServer (p. 247)
- ListGameServers (p. 229)
- ClaimGameServer (p. 8)
- DescribeGameServer (p. 149)
- UpdateGameServer (p. 326)
- DeregisterGameServer (p. 114)

Request Syntax

```json
{
  "ConnectionInfo": "string",
  "CustomSortKey": "string",
  "GameServerData": "string",
  "GameServerGroupName": "string",
  "GameServerId": "string",
  "InstanceId": "string",
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.
Note
In the following list, the required parameters are described first.

**GameServerGroupName (p. 247)**
An identifier for the game server group where the game server is running. You can use either the GameServerGroup (p. 389) 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

**GameServerId (p. 247)**
A custom string that uniquely identifies the new game server. Game server IDs are developer-defined and must be unique across all game server groups in your AWS account.

Type: String
Pattern: \[a-zA-Z0-9-\.]+
Required: Yes

**InstanceId (p. 247)**
The unique identifier for the instance where the game server is running. This ID is available in the instance metadata.

Type: String
Length Constraints: Fixed length of 19.
Pattern: ^i-\[0-9a-zA-Z\]{17}$
Required: Yes

**ConnectionInfo (p. 247)**
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
Pattern: .\S+.
Required: No

**CustomSortKey (p. 247)**
A game server tag that can be used to request sorted lists of game servers using ListGameServers (p. 229). Custom sort keys are developer-defined based on how you want to organize the retrieved game server information.

Type: String
Length Constraints: Minimum length of 1. Maximum length of 64.
Response Syntax

```json
{
    "GameServer": {
        "ClaimStatus": "string",
        "ConnectionInfo": "string",
        "CustomSortKey": "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 (p. 249)**

Object that describes the newly created game server resource.
Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

Example

Register a game server

This example illustrates how an instance of a game server build notifies GameLift that it is ready to host a game.

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

Sample Request

```json
{
  "GameServerGroupName": "MegaFrogServers_NA",
  "ConnectionInfo": "192.0.2.0.80",
  "GameServerId": "mega-frog-game-12345678",
  "InstanceId": "i-1234567890abcdef0"
}
```
CLI command:

/aws fiesta 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

```json
{
   "GameServer": {
      "ClaimStatus": "",
      "ConnectionInfo": "192.0.2.0.80",
      "CustomSortKey": "",
      "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
- AWS SDK for JavaScript
- 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 CreateBuild (p. 17).

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

Related operations

• CreateBuild (p. 17)
• ListBuilds (p. 217)
• DescribeBuild (p. 120)
• UpdateBuild (p. 310)
• DeleteBuild (p. 88)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

Note

In the following list, the required parameters are described first.

**BuildId (p. 252)**

A unique identifier for a 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",
      ...
   }
}
```
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 (p. 252)

Amazon S3 path and key, identifying where the game build files are stored.

Type: S3Location (p. 441) object

UploadCredentials (p. 252)

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 (p. 364) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

UnauthorizedException

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

HTTP Status Code: 400
Example

Refresh access credentials for uploading a build

This example obtains new, valid access credentials for uploading a build file to a GameLift 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

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

Sample Response

```json
{
  "StorageLocation": {
    "Bucket": "gamelift-builds-us-west-2",
    "Key": "123456789012/build-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
  },
  "UploadCredentials": {
    "AccessKeyId": "AKIAIOSFODNN7EXAMPLE",
    "SecretAccessKey": "wJalrXUtncPwFEMI/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
- AWS SDK for JavaScript
- 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.

- CreateAlias (p. 13)
- ListAliases (p. 214)
- DescribeAlias (p. 117)
- UpdateAlias (p. 307)
- DeleteAlias (p. 86)
- ResolveAlias (p. 255)

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

**AliasId (p. 255)**

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 (p. 255)

The Amazon Resource Name (ARN) associated with the GameLift fleet resource that this alias points to.
Type: String
Pattern: ^arn:.*:fleet\/fleet-\S+

FleetId (p. 255)

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 (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

TerminalRoutingStrategyException

The service is unable to resolve the routing for a particular alias because it has a terminal RoutingStrategy (p. 437) 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
See Also

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

This operation is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

Reinstates activity on a game server group after it has been suspended. A game server group might be suspended by the SuspendGameServerGroup (p. 297) 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.

Learn more
GameLift FleetIQ Guide

Related operations
• CreateGameServerGroup (p. 35)
• ListGameServerGroups (p. 226)
• DescribeGameServerGroup (p. 153)
• UpdateGameServerGroup (p. 331)
• DeleteGameServerGroup (p. 94)
• ResumeGameServerGroup (p. 258)
• SuspendGameServerGroup (p. 297)

Request Syntax

```
{
   "GameServerGroupName": "string",
   "ResumeActions": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

GameServerGroupName (p. 258)

The unique identifier of the game server group on which to resume activity. Use either the GameServerGroup (p. 389) 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 (p. 258)**

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**

```json
{
  "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 (p. 259)**

An object that describes the game server group resource, with the SuspendedActions property updated to reflect the resumed activity.

Type: `GameServerGroup (p. 389)` object

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

UnauthorizedException

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

HTTP Status Code: 400

Example

Restart a game server group activity

This example restores instance rebalancing activities for the game server group.

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

Sample Request

```json
{
   "GameServerGroupName": "MegaFrogServers_NA",
   "ResumeActions": [ "REPLACE_INSTANCE_TYPES" ]
}
```

CLI command:

```bash
aws fiesta resume-game-server-group \
   --game-server-group MegaFrogServers_NA \
   --resume-actions REPLACE_INSTANCE_TYPES
```

Sample Response

```json
{
   "GameServerGroup": {
      "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"
         }
      ]
   }
}
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
- AWS SDK for JavaScript
- 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 in a specified order. You can search or sort by the following game session attributes:

- **gameSessionId** -- A unique identifier for the game session. You can use either a GameSessionId or GameSessionArn value.

- **gameSessionName** -- Name assigned to a game session. This value is set when requesting a new game session with CreateGameSession (p. 44) or updating with UpdateGameSession (p. 336). Game session names do not need to be unique to a game session.

- **gameSessionProperties** -- Custom data defined in a game session’s GameProperty parameter. GameProperty values are stored as key:value pairs; the filter expression must indicate the key and a string to search the data values for. For example, to search for game sessions with custom data containing the key:value pair “gameMode:brawl”, specify the following:

  ```
  gameSessionProperties.gameMode = "brawl"
  ```

  All custom data values are searched as strings.

- **maximumSessions** -- Maximum number of player sessions allowed for a game session. This value is set when requesting a new game session with CreateGameSession (p. 44) or updating with UpdateGameSession (p. 336).

- **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.

To search or sort, specify either a fleet ID or an alias ID, and provide a search filter expression, a sort expression, or both. If successful, a collection of GameSession (p. 394) objects matching the request is returned. Use the pagination parameters to retrieve results as a set of sequential pages.

You can search for game sessions one fleet at a time only. To find game sessions across multiple fleets, you must search each fleet separately and combine the results. This search feature finds only game sessions that are in ACTIVE status. To locate games in statuses other than active, use DescribeGameSessionDetails (p. 157).

- CreateGameSession (p. 44)
- DescribeGameSessions (p. 167)
- DescribeGameSessionDetails (p. 157)
- SearchGameSessions (p. 262)
- UpdateGameSession (p. 336)
- GetGameSessionLogUrl (p. 206)
- Game session placements
  - StartGameSessionPlacement (p. 274)
  - DescribeGameSessionPlacement (p. 161)
  - StopGameSessionPlacement (p. 292)
Request Syntax

```json
{
   "AliasId": "string",
   "FilterExpression": "string",
   "FleetId": "string",
   "Limit": number,
   "NextToken": "string",
   "SortExpression": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

**AliasId (p. 263)**

A unique identifier for an 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 (p. 263)**

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
Required: No

FleetId (p. 263)

A unique identifier for a 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 (p. 263)

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

NextToken (p. 263)

Token that indicates the start of the next sequential page of results. Use the token that is returned with a previous call to this action. To start at the beginning of the result set, do not specify a value.

Type: String
Required: No

SortExpression (p. 263)

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
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",
      "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 (p. 265)**

A collection of objects containing game session properties for each session matching the request.

Type: Array of [GameSession (p. 394)] objects

**NextToken (p. 265)**

Token that indicates where to resume retrieving results on the next call to this action. If no token is returned, these results represent the end of the list.

Type: String


Errors

For information about the errors that are common to all actions, see [Common Errors (p. 460)].
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

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

TerminalRoutingStrategyException

The service is unable to resolve the routing for a particular alias because it has a terminal RoutingStrategy (p. 437) 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

Examples

Search game sessions

This example finds all game sessions with at least two players already connected. We recommend that all game session searches also filter out active game sessions that are not accepting new players.

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

Sample Request

```
{"AliasId": "MAG-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"
],
"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"
}

Search and sort game sessions

This example finds all game sessions that allow 20 or more players and are currently accepting new players. Results are sorted so that the newest game sessions are returned first.

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

Sample Request

```json
{"FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbb44aa",
 "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" --filter-expression "maximumSessions=20 AND hasAvailablePlayerSessions=true" --sort-expression "creationTimeMillis DESC"
```

Sample Response

```json
{
```
Search game sessions by custom game data

This example searches for game sessions based on game map and game mode information, which is stored as custom data in the GameSession object. The game session property GameProperty contains custom data formatted as key:value pairs. In this example, we want to find all game sessions where the game mode is free-for-all (key:value pair "gameMode:Ffa") and set in either of two game maps (key:value pair "gameMap:Suzuka" or "gameMap:Silverstone"). Results are sorted by difficulty levels (key "difficulty", values "Easy", "Normal", "Hard", "Insane"). Note: custom data is evaluated as a string, so the sorted results will be listed by the alphabetic order of the difficulty values.

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

Sample Request

```json
{"FleetId": "fleet-9999ffff-88ee-77dd-66cc-5555bbbe44aa", "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"
    },
    {
      "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"
    }
  ]
}
```

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
See Also

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

Resumes activity on a fleet that was suspended with StopFleetActions (p. 289). Currently, this operation is used to restart a fleet's auto-scaling activity.

To start fleet actions, specify the fleet ID and the type of actions to restart. When auto-scaling fleet actions are restarted, Amazon GameLift once again initiates scaling events as triggered by the fleet's scaling policies. If actions on the fleet were never stopped, this operation will have no effect. You can view a fleet's stopped actions using DescribeFleetAttributes (p. 126).

Learn more

Setting up GameLift Fleets

Related operations

- CreateFleet (p. 23)
- ListFleets (p. 222)
- DeleteFleet (p. 91)
- DescribeFleetAttributes (p. 126)
- UpdateFleetAttributes (p. 314)
- StartFleetActions (p. 271) or StopFleetActions (p. 289)

Request Syntax

```json
{
   "Actions": [ "string" ],
   "FleetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**Actions (p. 271)**

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 (p. 271)**

A unique identifier for a fleet to start actions on. 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 (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

UnauthorizedException

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

HTTP Status Code: 400

Example

Restart a fleet's automatic scaling activity

In this example, we want to resume the use of all scaling policies that have been defined for a specified fleet but were stopped by calling StopFleetActions. 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

```
POST / HTTP/1.1
Host: gamelift.us-west-2.amazonaws.com;
Accept-Encoding: identity
Content-Length: 208
```
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=wJalrXUtFnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY
X-Amz-Date: 20170406T004805Z
X-Amz-Target: GameLift.StartFleetActions

{
    "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
    "Actions": ["AUTO_SCALING"]
}

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
- AWS SDK for JavaScript
- 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 (see CreateGameSessionQueue (p. 50)). 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 (p. 161) 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.

- CreateGameSession (p. 44)
- DescribeGameSessions (p. 167)
- DescribeGameSessionDetails (p. 157)
- SearchGameSessions (p. 262)
- UpdateGameSession (p. 336)
- GetGameSessionLogUrl (p. 206)
- Game session placements
  - StartGameSessionPlacement (p. 274)
  - DescribeGameSessionPlacement (p. 161)
  - StopGameSessionPlacement (p. 292)

Request Syntax

```
{
  "DesiredPlayerSessions": [
    {
    
```

API Version: 2015-10-01
Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

**GameSessionQueueName (p. 274)**

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 (p. 274)**

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 (p. 274)**

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 unless you are resubmitting a canceled or timed-out placement request.

Type: String
Pattern: [a-zA-Z0-9-]+
Required: Yes

**DesiredPlayerSessions (p. 274)**
Set of information on each player to create a player session for.
Type: Array of DesiredPlayerSession (p. 368) objects
Required: No

**GameProperties (p. 274)**
Set of custom properties for a game session, formatted as key:value pairs. These properties are passed to a game server process in the GameSession (p. 394) object with a request to start a new game session (see Start a Game Session).
Type: Array of GameProperty (p. 385) objects
Array Members: Maximum number of 16 items.
Required: No

**GameSessionData (p. 274)**
Set of custom game session properties, formatted as a single string value. This data is passed to a game server process in the GameSession (p. 394) object with a request to start a new game session (see Start a Game Session).
Type: String
Required: No

**GameSessionName (p. 274)**
A descriptive label that is associated with a game session. Session names do not need to be unique.
Type: String
Required: No

**PlayerLatencies (p. 274)**
Set of values, expressed in milliseconds, indicating 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 (p. 431) objects
Required: No

---

**Response Syntax**

```
{
    "GameSessionPlacement": {
        "DnsName": "string",
        "EndTime": number,
        "GameProperties": [ ...
```

---

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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 (p. 276)**

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 (p. 401) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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.
Example

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: \texttt{us-east-1} = 110 and \texttt{us-west-2} = 100.
2. Amazon GameLift reorders the queue's destinations based on lowest average latency, and prioritizes destinations in Region \texttt{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 \texttt{us-west-2}. As a result, Amazon GameLift temporarily drops all \texttt{us-west-2} fleets as valid destinations.
4. Amazon GameLift tries to place the new game session on fleets in Region \texttt{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 \texttt{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.

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

Sample Request

```plaintext
POST / HTTP/1.1
Host: gamelift.us-west-2.amazonaws.com;
Accept-Encoding: identity
Content-Length: 824
```

HTTP Status Code: 400

**NotFoundException**

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

**UnauthorizedException**

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

HTTP Status Code: 400
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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
StartMatchBackfill

Finds new players to fill open slots in an existing game session. This operation can be used to add players to matched games that start with fewer than the maximum number of players or to replace players when they drop out. By backfilling with the same matchmaker used to create the original match, you ensure that new players meet the match criteria and maintain a consistent experience throughout the game session. You can backfill a match anytime after a game session has been created.

To request a match backfill, specify a unique ticket ID, the existing game session's ARN, a matchmaking configuration, and a set of data that describes all current players in the game session. If successful, a match backfill ticket is created and returned with status set to QUEUED. The ticket is placed in the matchmaker's ticket pool and processed. Track the status of the ticket to respond as needed.

The process of finding backfill matches is essentially identical to the initial matchmaking process. The matchmaker searches the pool and groups tickets together to form potential matches, allowing only one backfill ticket per potential match. Once a match is formed, the matchmaker creates player sessions for the new players. All tickets in the match are updated with the game session's connection information, and the GameSession (p. 394) object is updated to include matchmaker data on the new players. For more detail on how match backfill requests are processed, see How Amazon GameLift FlexMatch Works.

Learn more

Backfill Existing Games with FlexMatch

How GameLift FlexMatch Works

Related operations

• StartMatchmaking (p. 284)
• DescribeMatchmaking (p. 175)
• StopMatchmaking (p. 295)
• AcceptMatch (p. 5)
• StartMatchBackfill (p. 280)

Request Syntax

```json
{
  "ConfigurationName": "string",
  "GameSessionArn": "string",
  "Players": [
    {
      "LatencyInMs": {
        "string" : number
      },
      "PlayerAttributes": {
        "string" : {
          "N" : number,
          "S": "string",
          "SDM": {
            "string" : number
          },
          "SL": [ "string" ]
        }
      },
      "PlayerId": "string",
      "Team": "string"
    }]
}
```

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Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

**ConfigurationName (p. 280)**

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 (p. 394) 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

**GameSessionArn (p. 280)**

Amazon Resource Name (ARN) that is assigned to a game session and uniquely identifies it. This is the same as the game session ID.

Type: String

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

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

Required: Yes

**Players (p. 280)**

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.

- PlayerID, PlayerAttributes, Team
- This information is maintained in the GameSession (p. 394) 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.
- 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 (p. 429) objects

Required: Yes

**TicketId (p. 280)**

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
                        },
                        "SD": [ "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 (p. 282)**

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 (p. 425) object

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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**

A service resource associated with the request could not be found. 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
- AWS SDK for JavaScript
- 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, and starts a new game for the matched players. Each matchmaking request specifies the type of match to build (team configuration, rules for an acceptable match, etc.). The request also specifies the players to find a match for and where to host the new game session for optimal performance. A matchmaking request might start with a single player or a group of players who want to play together. FlexMatch finds additional players as needed to fill the match. Match type, rules, and the queue used to place a new game session are defined in a `MatchmakingConfiguration`.

To start matchmaking, provide a unique ticket ID, specify a matchmaking configuration, and include the players to be matched. You must also include a set of player attributes relevant for the matchmaking configuration. If successful, a matchmaking ticket is returned with status set to `QUEUED`. Track the status of the ticket to respond as needed and acquire game session connection information for successfully completed matches.

Tracking ticket status -- A couple of options are available for tracking the status of matchmaking requests:

- Polling -- Call `DescribeMatchmaking`. This operation returns the full ticket object, including current status and (for completed tickets) game session connection info. We recommend polling no more than once every 10 seconds.
- Notifications -- Get event notifications for changes in ticket status using Amazon Simple Notification Service (SNS). Notifications are easy to set up (see CreateMatchmakingConfiguration (p. 55)) and typically deliver match status changes faster and more efficiently than polling. We recommend that you use polling to back up to notifications (since delivery is not guaranteed) and call `DescribeMatchmaking` only when notifications are not received within 30 seconds.

Processing a matchmaking request -- FlexMatch handles a matchmaking request as follows:

1. Your client code submits a `StartMatchmaking` request for one or more players and tracks the status of the request ticket.
2. FlexMatch uses this ticket and others in process to build an acceptable match. When a potential match is identified, all tickets in the proposed match are advanced to the next status.
3. If the match requires player acceptance (set in the matchmaking configuration), the tickets move into status `REQUIRES_ACCEPTANCE`. This status triggers your client code to solicit acceptance from all players in every ticket involved in the match, and then call `AcceptMatch` (p. 5) for each player. If any player rejects or fails to accept the match before a specified timeout, the proposed match is dropped (see `AcceptMatch` for more details).
4. Once a match is proposed and accepted, the matchmaking tickets move into status `PLACING`. FlexMatch locates resources for a new game session using the game session queue (set in the matchmaking configuration) and creates the game session based on the match data.
5. When the match is successfully placed, the matchmaking tickets move into `COMPLETED` status. Connection information (including game session endpoint and player session) is added to the matchmaking tickets. Matched players can use the connection information to join the game.

Learn more

- Add FlexMatch to a Game Client
- Set Up FlexMatch Event Notification
- FlexMatch Integration Roadmap
- How GameLift FlexMatch Works
Related operations

- StartMatchmaking (p. 284)
- DescribeMatchmaking (p. 175)
- StopMatchmaking (p. 295)
- AcceptMatch (p. 5)
- StartMatchBackfill (p. 280)

Request Syntax

```json
{
  "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 (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

ConfigurationName (p. 285)

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 (p. 285)

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.

Type: Array of Player (p. 429) objects

Required: Yes

TicketId (p. 285)

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"
      }
    ]
  }
}
```

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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 (p. 286)**

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 (p. 425) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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**

A service resource associated with the request could not be found. 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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
StopFleetActions

Suspends activity on a fleet. Currently, this operation is used to stop a fleet's auto-scaling activity. It is used to temporarily stop triggering scaling events. The policies can be retained and auto-scaling activity can be restarted using StartFleetActions (p. 271). You can view a fleet's stopped actions using DescribeFleetAttributes (p. 126).

To stop fleet actions, specify the fleet ID and the type of actions to suspend. When auto-scaling fleet actions are stopped, Amazon GameLift no longer initiates scaling events except in response to manual changes using UpdateFleetCapacity (p. 318).

Learn more

Setting up GameLift Fleets

Related operations

• CreateFleet (p. 23)
• ListFleets (p. 222)
• DeleteFleet (p. 91)
• DescribeFleetAttributes (p. 126)
• UpdateFleetAttributes (p. 314)
• StartFleetActions (p. 271) or StopFleetActions (p. 289)

Request Syntax

```json
{
  "Actions": [ "string" ],
  "FleetId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

Note

In the following list, the required parameters are described first.

Actions (p. 289)

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 (p. 289)

A unique identifier for a 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

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 (p. 460).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

**UnauthorizedException**

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

HTTP Status Code: 400

Example

Stop a fleet's automatic scaling activity

In this example, we want to suspend all scaling policies that have been defined for a specified fleet. 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

```
POST / HTTP/1.1
Host: gamelift.us-west-2.amazonaws.com;
Accept-Encoding: identity
Content-Length: 208
```
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/gamelist/aws4_request, SignedHeaders=content-type;host;x-amz-date;x-amz-target,
Signature=wJalrXUtFENI/K7MDENG/bPzfRxieYXEIAAMZExampleKey
X-Amz-Date: 20170406T004805Z
X-Amz-Target: GameLift.StopFleetActions

{
  "FleetId": "fleet-2222bbbb-33cc-44dd-55ee-6666ffff77aa",
  "Actions": ["AUTO_SCALING"]
}

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
- AWS SDK for JavaScript
- 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.

- CreateGameSession (p. 44)
- DescribeGameSessions (p. 167)
- DescribeGameSessionDetails (p. 157)
- SearchGameSessions (p. 262)
- UpdateGameSession (p. 336)
- GetGameSessionLogUrl (p. 206)
- Game session placements
  - StartGameSessionPlacement (p. 274)
  - DescribeGameSessionPlacement (p. 161)
  - StopGameSessionPlacement (p. 292)

Request Syntax

```json
{
  "PlacementId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**PlacementId (p. 292)**

A unique identifier for a game session placement to cancel.

Type: String


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

Required: Yes

Response Syntax

```json
{
  "GameSessionPlacement": {
    "DnsName": "string",
    "EndTime": number,
    "GameProperties": [
      {
      }
    ]
  }
}
```
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 (p. 292)**

Object that describes the canceled game session placement, with CANCELLED status and an end time stamp.

Type: GameSessionPlacement (p. 401) object

**Errors**

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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

A service resource associated with the request could not be found. Clients should not retry such requests.

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
- AWS SDK for JavaScript
- 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 action 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

Related operations

- StartMatchmaking (p. 284)
- DescribeMatchmaking (p. 175)
- StopMatchmaking (p. 295)
- AcceptMatch (p. 5)
- StartMatchBackfill (p. 280)

Request Syntax

```
{
   "TicketId": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

**TicketId (p. 295)**

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 (p. 460).

**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**

A service resource associated with the request could not be found. 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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
SuspendGameServerGroup

This operation is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

Temporarily stops activity on a game server group without terminating instances or the game server group. You can restart activity by calling ResumeGameServerGroup (p. 258). 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 rebalances 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.

**Learn more**

GameLift FleetIQ Guide

**Related operations**

- CreateGameServerGroup (p. 35)
- ListGameServerGroups (p. 226)
- DescribeGameServerGroup (p. 153)
- UpdateGameServerGroup (p. 331)
- DeleteGameServerGroup (p. 94)
- ResumeGameServerGroup (p. 258)
- SuspendGameServerGroup (p. 297)

**Request Syntax**

```json
{
   "GameServerGroupName": "string",
   "SuspendActions": [ "string" ]
}
```

**Request Parameters**

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**GameServerGroupName (p. 297)**

The unique identifier of the game server group to stop activity on. Use either the GameServerGroup (p. 389) 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 (p. 297)

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

```json
{
   "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 (p. 298)**

An object that describes the game server group resource, with the SuspendActions property updated to reflect the suspended activity.

Type: GameServerGroup (p. 389) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).
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

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

UnauthorizedException

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

HTTP Status Code: 400

Example

Suspend a game server group activity

This example suspends instance rebalancing activities for the game server group.

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

Sample Request

```json
{
   "GameServerGroupName": "MegaFrogServers_NA",
   "SuspendActions": [ "REPLACE_INSTANCE_TYPES" ]
}
```

CLI command:

```
aws fiesta suspend-game-server-group \
   --game-server-group MegaFrogServers_NA \
   --suspend-actions REPLACE_INSTANCE_TYPES
```

Sample Response

```json
{
   "GameServerGroup": {
       "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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
TagResource

Assigns a tag to a GameLift resource. AWS resource tags provide an additional management tool set. You can use tags to organize resources, create IAM permissions policies to manage access to groups of resources, customize AWS cost breakdowns, etc. This action handles the permissions necessary to manage tags for the following GameLift resource types:

- Build
- Script
- Fleet
- Alias
- GameSessionQueue
- MatchmakingConfiguration
- MatchmakingRuleSet

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 specified resource.

Learn more

Tagging AWS Resources in the AWS General Reference

AWS Tagging Strategies

Related operations

- TagResource (p. 301)
- UntagResource (p. 304)
- ListTagsForResource (p. 236)

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 (p. 458).

The request accepts the following data in JSON format.

Note
In the following list, the required parameters are described first.
ResourceARN (p. 301)

The Amazon Resource Name (ARN) that is assigned to and uniquely identifies the GameLift resource that you want to assign tags to. GameLift resource ARNs are included in the data object for the resource, which can be retrieved by calling a List or Describe action for the resource type.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1011.

Required: Yes

Tags (p. 301)

A list of one or more tags to assign to the specified 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 actual tagging limits.

Type: Array of Tag (p. 450) 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 (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

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

Removes a tag that is assigned to a GameLift resource. Resource tags are used to organize AWS resources for a range of purposes. This action handles the permissions necessary to manage tags for the following GameLift resource types:

- Build
- Script
- Fleet
- Alias
- GameSessionQueue
- MatchmakingConfiguration
- MatchmakingRuleSet

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 be removed. This action succeeds even if the list includes tags that are not currently assigned to the specified resource.

Learn more

Tagging AWS Resources in the AWS General Reference

AWS Tagging Strategies

Related operations

- TagResource (p. 301)
- UntagResource (p. 304)
- ListTagsForResource (p. 236)

Request Syntax

```json
{
    "ResourceARN": "string",
    "TagKeys": [ "string" ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

Note

In the following list, the required parameters are described first.

ResourceARN (p. 304)

The Amazon Resource Name (ARN) that is assigned to and uniquely identifies the GameLift resource that you want to remove tags from. GameLift resource ARNs are included in the data object for the resource, which can be retrieved by calling a List or Describe action for the resource type.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 1011.
Required: Yes

TagKeys (p. 304)
A list of one or more tag keys to remove from the specified GameLift resource. An AWS resource can have only one tag with a specific tag key, so specifying the tag key identifies which tag to remove.
Type: Array of strings
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 (p. 460).

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
A service resource associated with the request could not be found. Clients should not retry such requests.
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
See Also

- AWS SDK for .NET
- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for JavaScript
- 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.

- CreateAlias (p. 13)
- ListAliases (p. 214)
- DescribeAlias (p. 117)
- UpdateAlias (p. 307)
- DeleteAlias (p. 86)
- ResolveAlias (p. 255)

Request Syntax

```json
{
   "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 (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**AliasId (p. 307)**

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 (p. 307)**

A human-readable description of the alias.

Type: String


Required: No
Name (p. 307)
A descriptive label that is associated with an alias. Alias names do not need to be unique.
Type: String
Pattern: .\S.*
Required: No
RoutingStrategy (p. 307)
The routing configuration, including routing type and fleet target, for the alias.
Type: RoutingStrategy (p. 437) 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 (p. 308)
The updated alias resource.
Type: Alias (p. 360) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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**

A service resource associated with the request could not be found. Clients should not retry such requests.

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
- AWS SDK for JavaScript
- 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

Related operations

- CreateBuild (p. 17)
- ListBuilds (p. 217)
- DescribeBuild (p. 120)
- UpdateBuild (p. 310)
- DeleteBuild (p. 88)

Request Syntax

```
{
  "BuildId": "string",
  "Name": "string",
  "Version": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**BuildId (p. 310)**

A unique identifier for a 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 (p. 310)**

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

Type: String


Required: No
Version (p. 310)

Version information that is associated with a build or script. Version strings do not need to be unique.

Type: String


Required: No

Response Syntax

```json
{
    "Build": {
        "BuildArn": "string",
        "BuildId": "string",
        "CreationTime": number,
        "Name": "string",
        "OperatingSystem": "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 (p. 311)

The updated build resource.

Type: Build (p. 365) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.
HTTP Status Code: 400

UnauthorizedException

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

HTTP Status Code: 400

Example

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

```json
{
    "BuildId": "build-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
    "Name": "My_Game_Server_Build_Foo",
    "Version": "12345.f00"
}
```

Sample Response

```json
{
    "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",
        "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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
• AWS SDK for Ruby V3
UpdateFleetAttributes

Updates fleet properties, including name and description, for a fleet. To update metadata, specify the fleet ID and the property values that you want to change. If successful, the fleet ID for the updated fleet is returned.

Learn more
Setting up GameLift Fleets

Related operations
- CreateFleet (p. 23)
- ListFleets (p. 222)
- DeleteFleet (p. 91)
- DescribeFleetAttributes (p. 126)
- Update fleets:
  - UpdateFleetAttributes (p. 314)
  - UpdateFleetCapacity (p. 318)
  - UpdateFleetPortSettings (p. 322)
  - UpdateRuntimeConfiguration (p. 348)
- StartFleetActions (p. 271) or StopFleetActions (p. 289)

Request Syntax

```
{
  "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 (p. 458).

The request accepts the following data in JSON format.

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

**FleetId (p. 314)**

A unique identifier for a fleet to update attribute metadata for. You can use either the fleet ID or ARN value.

Type: String

Pattern: ^fleet-\S+|^arn:.*:fleet\/%fed-\S+
Required: Yes

**Description (p. 314)**

Human-readable description of a fleet.

Type: String


Required: No

**MetricGroups (p. 314)**

Names of metric groups to include this fleet in. Amazon CloudWatch uses a fleet metric group is to aggregate metrics from multiple fleets. Use an existing metric group name to add this fleet to the group. Or use a new name to create a new metric group. A fleet can only be included 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 (p. 314)**

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

Type: String


Required: No

**NewGameSessionProtectionPolicy (p. 314)**

Game session protection policy to apply to all new instances created in this fleet. Instances that already exist are not affected. You can set protection for individual instances using UpdateGameSession (p. 336).

- **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 (p. 314)**

Policy that limits the number of game sessions an individual player can create over a span of time.

Type: ResourceCreationLimitPolicy (p. 436) object

Required: No

### Response Syntax

```json
{
}
```
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.

FleetId (p. 315)

A unique identifier for a fleet that was updated. Use either the fleet ID or ARN value.

Type: String

Pattern: ^fleet-\S+

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

LimitExceeded Exception

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

HTTP Status Code: 400

NotFoundException

A service resource associated with the request could not be found. Clients should not retry such requests.

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

Updates capacity settings for a fleet. Use this action to specify the number of EC2 instances (hosts) that you want this fleet to contain. Before calling this action, you may want to call DescribeEC2InstanceLimits (p. 123) to get the maximum capacity based on the fleet's EC2 instance type.

Specify minimum and maximum number of instances. Amazon GameLift will not change fleet capacity to values fall outside of this range. This is particularly important when using auto-scaling (see PutScalingPolicy (p. 239)) to allow capacity to adjust based on player demand while imposing limits on automatic adjustments.

To update fleet capacity, specify the fleet ID and the number of instances you want the fleet to host. If successful, Amazon GameLift starts or terminates instances so that the fleet's active instance count matches the desired instance count. You can view a fleet's current capacity information by calling DescribeFleetCapacity (p. 132). If the desired instance count is higher than the instance type's limit, the "Limit Exceeded" exception occurs.

Learn more

Setting up GameLift Fleets

Related operations

- CreateFleet (p. 23)
- ListFleets (p. 222)
- DeleteFleet (p. 91)
- DescribeFleetAttributes (p. 126)
- Update fleets:
  - UpdateFleetAttributes (p. 314)
  - UpdateFleetCapacity (p. 318)
  - UpdateFleetPortSettings (p. 322)
  - UpdateRuntimeConfiguration (p. 348)
  - StartFleetActions (p. 271) or StopFleetActions (p. 289)

Request Syntax

```json
{
  "DesiredInstances": number,
  "FleetId": "string",
  "MaxSize": number,
  "MinSize": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.
**FleetId (p. 318)**

A unique identifier for a fleet to update capacity for. You can use either the fleet ID or ARN value.

Type: String

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

Required: Yes

**DesiredInstances (p. 318)**

Number of EC2 instances you want this fleet to host.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

**MaxSize (p. 318)**

The maximum value allowed for the fleet's instance count. Default if not set is 1.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

**MinSize (p. 318)**

The minimum value allowed for the fleet's instance count. Default if not set is 0.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### Response Syntax

```
{
  "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.

**FleetId (p. 319)**

A unique identifier for a fleet that was updated.

Type: String

Pattern: ^fleet-\S+
Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

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
See Also

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

Updates port settings for a fleet. To update settings, specify the fleet ID to be updated and list the permissions you want to update. 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.

Learn more

Setting up GameLift Fleets

Related operations

• CreateFleet (p. 23)
• ListFleets (p. 222)
• DeleteFleet (p. 91)
• DescribeFleetAttributes (p. 126)
• Update fleets:
  • UpdateFleetAttributes (p. 314)
  • UpdateFleetCapacity (p. 318)
  • UpdateFleetPortSettings (p. 322)
  • UpdateRuntimeConfiguration (p. 348)
• StartFleetActions (p. 271) or StopFleetActions (p. 289)

Request Syntax

{  
  "FleetId": "string",
  "InboundPermissionAuthorizations": [
    
      
    
  ],
  "InboundPermissionRevocations": [
    
      
    
  ]
}

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.
Note
In the following list, the required parameters are described first.

FleetId (p. 322)
A unique identifier for a 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 (p. 322)
A collection of port settings to be added to the fleet resource.
Type: Array of IpPermission (p. 414) objects
Array Members: Maximum number of 50 items.
Required: No

InboundPermissionRevocations (p. 322)
A collection of port settings to be removed from the fleet resource.
Type: Array of IpPermission (p. 414) objects
Array Members: Maximum number of 50 items.
Required: No

Response Syntax

```
{
   "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.

FleetId (p. 323)
A unique identifier for a fleet that was updated.
Type: String
Pattern: ^fleet-\S+

Errors
For information about the errors that are common to all actions, see Common Errors (p. 460).
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

A service resource associated with the request could not be found. Clients should not retry such requests.

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

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UpdateGameServer

This operation is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

Updates information about a registered game server. This operation is called by a game server process that is running on an instance in a game server group. There are three reasons to update game server information:

- To change the utilization status of the game server
- To report game server health status
- To change game server metadata

A registered game server should regularly report health and should update utilization status when it is supporting gameplay. These tasks enable GameLift FleetIQ to accurately track game server availability. You can make all three types of updates in the same request:

- To update the game server's utilization status, identify the game server and game server group and specify the current utilization status. Use this status to identify when game servers are currently hosting games and when they are available to be claimed.
- 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 and custom sort key values.

Once a game server is successfully updated, the relevant statuses and timestamps are updated.

Learn more

GameLift FleetIQ Guide

Related operations

- RegisterGameServer (p. 247)
- ListGameServers (p. 229)
- ClaimGameServer (p. 8)
- DescribeGameServer (p. 149)
- UpdateGameServer (p. 326)
- DeregisterGameServer (p. 114)

Request Syntax

```json
{
    "CustomSortKey": "string",
    "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 (p. 458).

The request accepts the following data in JSON format.

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

GameServerGroupName (p. 326)

An identifier for the game server group where the game server is running. Use either the GameServerGroup (p. 389) 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

GameServerId (p. 326)

The identifier for the game server to be updated.

Type: String


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

Required: Yes

CustomSortKey (p. 326)

A game server tag that can be used to request sorted lists of game servers using ListGameServers (p. 229). Custom sort keys are developer-defined based on how you want to organize the retrieved game server information.

Type: String

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

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

Required: No

GameServerData (p. 326)

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 using DescribeGameServer (p. 149) or ClaimGameServer (p. 8).

Type: String


Pattern: .\S.*
HealthCheck (p. 326)

Indicates health status of the game server. An update that explicitly includes this parameter updates the game server’s LastHealthCheckTime timestamp.

Type: String

Valid Values: HEALTHY

Required: No

UtilizationStatus (p. 326)

Indicates whether the game server is available or is currently hosting gameplay.

Type: String

Valid Values: AVAILABLE | UTILIZED

Required: No

Response Syntax

```
{"GameServer": {
  "ClaimStatus": "string",
  "ConnectionInfo": "string",
  "CustomSortKey": "string",
  "GameServerData": "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 (p. 328)

Object that describes the newly updated game server resource.

Type: GameServer (p. 386) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).
### Example

#### Report that a game server is now hosting gameplay

This example changes the utilization status of a game server and also reports the results of a health check. Before this call, the game server’s utilization status is AVAILABLE and the claim status is CLAIMED.

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

**Sample Request**

```json
{
  "GameServerGroupName": "MegaFrogServers_NA",
  "HealthCheck": "HEALTHY",
  "UtilizationStatus": "UTILIZED"
}
```

CLI command:

```
aws fiesta update-game-server \
  --game-server-group-name MegaFrogServers_NA \
  --health-check HEALTHY \
  --utilization-status UTILIZED
```

**Sample Response**

```json
{
  "GameServer": {
    "ClaimStatus": "",
    "ConnectionInfo": "192.0.2.0.80",
    "CustomSortKey": "Level",
    "HealthCheck": "HEALTHY",
    "HealthCheckMetadata": {},
    "HealthCheckStatus": "HEALTHY",
    "HealthCheckTimestamp": "2023-04-09T12:34:56Z",
    "HealthCheckType": "NETWORK",
    "IpAddress": "192.0.2.0.80",
    "Port": 80,
    "Rate": 1,
    "Status": "UTILIZED",
    "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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateGameServerGroup

This operation is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

Updates GameLift FleetIQ-specific properties for a game server group. These properties include instance rebalancing and game server protection. Many Auto Scaling group properties are updated directly. These include Auto Scaling policies, minimum/maximum/desired instance counts, and launch template.

To update the game server group, specify the game server group ID and provide the updated values.

Updated properties are validated to ensure that GameLift FleetIQ can continue to perform its core instance rebalancing activity. When you change Auto Scaling group properties directly and the changes cause errors with GameLift FleetIQ activities, an alert is sent.

Learn more

GameLift FleetIQ Guide

Related operations

- CreateGameServerGroup (p. 35)
- ListGameServerGroups (p. 226)
- DescribeGameServerGroup (p. 153)
- UpdateGameServerGroup (p. 331)
- DeleteGameServerGroup (p. 94)
- ResumeGameServerGroup (p. 258)
- SuspendGameServerGroup (p. 297)

Request Syntax

```json
{
    "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 (p. 458).

The request accepts the following data in JSON format.

**Note**
In the following list, the required parameters are described first.
GameServerGroupName (p. 331)

The unique identifier of the game server group to update. Use either the GameServerGroup (p. 389) 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 (p. 331)

The fallback balancing method to use for the game server group when Spot Instances in a Region become unavailable or are not viable for game hosting. Once triggered, this method remains active until Spot Instances can again be used. Method options include the following:

• SPOT_ONLY - If Spot Instances are unavailable, the game server group provides no hosting capacity. No new instances are started, and the existing nonviable Spot Instances are terminated (after current gameplay ends) and are not replaced.

• SPOT_PREFERRED - If Spot Instances are unavailable, the game server group continues to provide hosting capacity by using On-Demand Instances. Existing nonviable Spot Instances are terminated (after current gameplay ends) and are replaced with new On-Demand Instances.

Type: String

Valid Values: SPOT_ONLY | SPOT_PREFERRED

Required: No

GameServerProtectionPolicy (p. 331)

A flag that indicates whether instances in the game server group are protected from early termination. Unprotected instances that have active game servers running may 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. An exception to this is 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 (p. 331)

An updated list of EC2 instance types to use when creating instances in the group. The instance definition must specify instance types that are supported by GameLift FleetIQ and must include at least two instance types. 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.

Type: Array of InstanceDefinition (p. 413) objects

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

Required: No

RoleArn (p. 331)

The Amazon Resource Name (ARN) for an IAM role that allows Amazon GameLift to access your EC2 Auto Scaling groups. The submitted role is validated to ensure that it contains the necessary permissions for game server groups.
Type: String
Length Constraints: Minimum length of 1. Maximum length of 256.
Pattern: ^arn:.*:role\/[\w+=,.@-]+
Required: No

Response Syntax

```json
{
   "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 (p. 333)**

An object that describes the game server group resource with updated properties.

Type: GameServerGroup (p. 389) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

HTTP Status Code: 400

**UnauthorizedException**

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

HTTP Status Code: 400

### Example

**Update a game server group instance definitions**

This example changes the balancing strategy for the game server group and provides a new set of instance definitions. Previously, the game server group used c4.large and c5.large instance types. This request removes the old instance definitions and replaces them. Since the 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",
  "BalancingStrategy": "SPOT_ONLY"
}
```

CLI command:
```
aws fiesta update-game-server-group \
  --game-server-group MegaFrogServers_NA \
  --balancing-strategy SPOT_ONLY \n  --instance-definitions '[["InstanceType": "c4.xlarge"], {"InstanceType": "c5.xlarge"}]'
```

#### Sample Response

```
{
  "GameServerGroup": {
    "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"
      },
    
```
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
- AWS SDK for JavaScript
- AWS SDK for PHP V3
- AWS SDK for Python
- AWS SDK for Ruby V3
UpdateGameSession

Updates game session properties. This includes the session name, maximum player count, protection policy, which controls whether or not an active game session can be terminated during a scale-down event, and the player session creation policy, which controls whether or not new players can join the session. To update a game session, specify the game session ID and the values you want to change. If successful, an updated GameSession (p. 394) object is returned.

- CreateGameSession (p. 44)
- DescribeGameSessions (p. 167)
- DescribeGameSessionDetails (p. 157)
- SearchGameSessions (p. 262)
- UpdateGameSession (p. 336)
- GetGameSessionLogUrl (p. 206)
- Game session placements
  - StartGameSessionPlacement (p. 274)
  - DescribeGameSessionPlacement (p. 161)
  - StopGameSessionPlacement (p. 292)

Request Syntax

```
{
  "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 (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

GameSessionId (p. 336)

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

MaximumPlayerSessionCount (p. 336)

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 (p. 336)
A descriptive label that is associated with a game session. Session names do not need to be unique.
Type: String
Required: No

PlayerSessionCreationPolicy (p. 336)
Policy determining whether or not the game session accepts new players.
Type: String
Valid Values: ACCEPT_ALL | DENY_ALL
Required: No

ProtectionPolicy (p. 336)
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

```json
{
    "GameSession": {
        "CreationTime": number,
        "CreatorId": "string",
        "CurrentPlayerSessionCount": number,
        "DnsName": "string",
        "FleetArn": "string",
        "FleetId": "string",
        "GameProperties": [
            {
                "Key": "string",
                "Value": "string"
            }
        ],
        "GameSessionData": "string",
        "GameSessionId": "string",
        "IpAddress": "string",
        "MatchmakerData": "string",
        "MaximumPlayerSessionCount": number,
        "Name": "string",
        "PlayerSessionCreationPolicy": "string",
        "Port": 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 (p. 337)

The updated game session metadata.

Type: GameSession (p. 394) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

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

Updates settings for a game session queue, which determines how new game session requests in the queue are processed. 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

Related operations

• CreateGameSessionQueue (p. 50)
• DescribeGameSessionQueues (p. 164)
• UpdateGameSessionQueue (p. 340)
• DeleteGameSessionQueue (p. 98)

Request Syntax

```json
{
    "Destinations": [
        {
            "DestinationArn": "string"
        }
    ],
    "Name": "string",
    "PlayerLatencyPolicies": [
        {
            "MaximumIndividualPlayerLatencyMilliseconds": number,
            "PolicyDurationSeconds": number
        }
    ],
    "TimeoutInSeconds": number
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

Note

In the following list, the required parameters are described first.

Name (p. 340)

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
Destinations (p. 340)

A list of fleets that can be used to fulfill game session placement requests in the queue. Fleets are identified by either a fleet ARN or a fleet alias ARN. Destinations are listed in default preference order. When updating this list, provide a complete list of destinations.

Type: Array of GameSessionQueueDestination (p. 407) objects

Required: No

PlayerLatencyPolicies (p. 340)

A collection of latency policies to apply when processing game sessions placement requests with player latency information. Multiple policies are evaluated in order of the maximum latency value, starting with the lowest latency values. With just one policy, the policy is enforced at the start of the game session placement for the duration period. With multiple policies, each policy is enforced consecutively for its duration period. For example, a queue might enforce a 60-second policy followed by a 120-second policy, and then no policy for the remainder of the placement. When updating policies, provide a complete collection of policies.

Type: Array of PlayerLatencyPolicy (p. 432) objects

Required: No

TimeoutInSeconds (p. 340)

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.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

Response Syntax

```
{
    "GameSessionQueue": {
        "Destinations": [
            {
                "DestinationArn": "string"
            },

            "GameSessionQueueArn": "string",
            "Name": "string",
            "PlayerLatencyPolicies": [
                {
                    "MaximumIndividualPlayerLatencyMilliseconds": number,
                    "PolicyDurationSeconds": number
                },

                "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 (p. 341)**

An object that describes the newly updated game session queue.

Type: GameSessionQueue (p. 405) object

## Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

**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**

A service resource associated with the request could not be found. Clients should not retry such requests.

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
- AWS SDK for JavaScript
- 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

Related operations

- CreateMatchmakingConfiguration (p. 55)
- DescribeMatchmakingConfigurations (p. 178)
- UpdateMatchmakingConfiguration (p. 343)
- DeleteMatchmakingConfiguration (p. 100)
- CreateMatchmakingRuleSet (p. 61)
- DescribeMatchmakingRuleSets (p. 182)
- ValidateMatchmakingRuleSet (p. 356)
- DeleteMatchmakingRuleSet (p. 102)

Request Syntax

```json
{
   "AcceptanceRequired": boolean,
   "AcceptanceTimeoutSeconds": number,
   "AdditionalPlayerCount": number,
   "BackfillMode": "string",
   "CustomEventData": "string",
   "Description": "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 (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.
Request Parameters

Name (p. 343)
A unique identifier for a 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 (p. 343)
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.
Type: Boolean
Required: No

AcceptanceTimeoutSeconds (p. 343)
The length of time (in seconds) to wait for players to accept a proposed match. If any player rejects the match or fails to accept before the timeout, the ticket continues to look for an acceptable match.
Type: Integer
Required: No

AdditionalPlayerCount (p. 343)
The number of player slots in a match to keep open for future players. For example, assume that the configuration's rule set specifies a match for a single 12-person team. If the additional player count is set to 2, only 10 players are initially selected for the match.
Type: Integer
Valid Range: Minimum value of 0.
Required: No

BackfillMode (p. 343)
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 StartMatchBackfill (p. 280) request whenever a game session has one or more open slots. Learn more about manual and automatic backfill in Backfill Existing Games with FlexMatch.
Type: String
Valid Values: AUTOMATIC | MANUAL
Required: No

CustomEventData (p. 343)
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 (p. 343)**

A descriptive label that is associated with matchmaking configuration.

Type: String


Required: No

**GameProperties (p. 343)**

A set of custom properties for a game session, formatted as key-value pairs. These properties are passed to a game server process in the GameSession (p. 394) object with a request to start a new game session (see Start a Game Session). This information is added to the new GameSession (p. 394) object that is created for a successful match.

Type: Array of GameProperty (p. 385) objects

Array Members: Maximum number of 16 items.

Required: No

**GameSessionData (p. 343)**

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 (p. 394) object with a request to start a new game session (see Start a Game Session). This information is added to the new GameSession (p. 394) object that is created for a successful match.

Type: String


Required: No

**GameSessionQueueArns (p. 343)**

Amazon Resource Name (ARN) that is assigned to a GameLift game session queue resource and uniquely identifies it. ARNs are unique across all Regions. These queues are used when placing game sessions for matches that are created with this matchmaking configuration. Queues can be located in any Region.

Type: Array of strings

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

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

Required: No

**NotificationTarget (p. 343)**

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:_./-]*
Required: No

**RequestTimeoutSeconds (p. 343)**

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


Required: No

**RuleSetName (p. 343)**

A unique identifier for a 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",
    "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 (p. 346)

The updated matchmaking configuration.

Type: MatchmakingConfiguration (p. 419) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

A service resource associated with the request could not be found. 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
- AWS SDK for JavaScript
- 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 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 an ACTIVE status.

To update runtime configuration, specify the fleet ID and provide a RuntimeConfiguration object with an updated set of server process configurations.

Each instance in a Amazon GameLift fleet checks regularly for an updated runtime configuration and changes how it launches server processes to comply with the latest version. Existing server processes are not affected by the update; runtime configuration changes are applied gradually as existing processes shut down and new processes are launched during Amazon GameLift's normal process recycling activity.

Learn more
Setting up GameLift Fleets

Related operations
• CreateFleet (p. 23)
• ListFleets (p. 222)
• DeleteFleet (p. 91)
• DescribeFleetAttributes (p. 126)
• Update fleets:
  • UpdateFleetAttributes (p. 314)
  • UpdateFleetCapacity (p. 318)
  • UpdateFleetPortSettings (p. 322)
  • UpdateRuntimeConfiguration (p. 348)
• StartFleetActions (p. 271) or StopFleetActions (p. 289)

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 (p. 458).

The request accepts the following data in JSON format.
Note
In the following list, the required parameters are described first.

FleetId (p. 348)
A unique identifier for a 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 (p. 348)
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 and includes the following configuration settings: the server executable or launch script file, launch parameters, and the number of processes to run concurrently on each instance. A CreateFleet request must include a runtime configuration with at least one server process configuration.
Type: RuntimeConfiguration (p. 439) object
Required: Yes

Response Syntax

```json
{
  "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 (p. 349)
The runtime configuration currently in force. If the update was successful, this object matches the one in the request.
Type: RuntimeConfiguration (p. 439) object

Errors
For information about the errors that are common to all actions, see Common Errors (p. 460).
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

A service resource associated with the request could not be found. Clients should not retry such requests.

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
- AWS SDK for JavaScript
- 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 operations

- CreateScript (p. 71)
- ListScripts (p. 232)
- DescribeScript (p. 198)
- UpdateScript (p. 351)
- DeleteScript (p. 107)

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 (p. 458).

The request accepts the following data in JSON format.

**Note**

In the following list, the required parameters are described first.

**ScriptId (p. 351)**

A unique identifier for a 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 (p. 351)**

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

Type: String


Required: No

**StorageLocation (p. 351)**

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 (p. 441) object

Required: No

**Version (p. 351)**

The version that is associated with a build or script. Version strings do not need to be unique.

Type: String


Required: No

**ZipFile (p. 351)**

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**

```json
{
  "Script": {
    "CreationTime": number,
    "Name": "string",
  
```

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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 (p. 352)

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 (p. 447) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 460).

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

A service resource associated with the request could not be found. Clients should not retry such requests.

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

```json
{
    "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
    "Version": "1.0.2",
    "ZipFile": <zip file data>
}
```

CLI syntax:

```bash
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

```json
{
    "Script": {
        "CreationTime": 1496708916.18,
        "Name": "My_Realtime_Script_1",
        "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

```json
{
    "Script": {
        "CreationTime": 1496708916.18,
        "Name": "My_Realtime_Script",
        "ScriptId": "script-1111aaaa-22bb-33cc-44dd-5555eeee66ff",
        "SizeOnDisk": 10000,
        "StorageLocation": {
            "Bucket": "my_realtime_script_files",
            "Key": "123456789012/script-1111aaaa-22bb-33cc-44dd-5555eeee66ff"
        },
        "Version": "1.0.2"
    }
}
```

CLI syntax:

```bash
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",
        "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
- AWS SDK for JavaScript
- 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

Related operations
- CreateMatchmakingConfiguration (p. 55)
- DescribeMatchmakingConfigurations (p. 178)
- UpdateMatchmakingConfiguration (p. 343)
- DeleteMatchmakingConfiguration (p. 100)
- CreateMatchmakingRuleSet (p. 61)
- DescribeMatchmakingRuleSets (p. 182)
- ValidateMatchmakingRuleSet (p. 356)
- DeleteMatchmakingRuleSet (p. 102)

Request Syntax

```
{
  "RuleSetBody": "string"
}
```

Request Parameters

For information about the parameters that are common to all actions, see Common Parameters (p. 458).

The request accepts the following data in JSON format.

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

**RuleSetBody (p. 356)**
A collection of matchmaking rules to validate, formatted as a JSON string.
Type: String
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 (p. 356)

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 (p. 460).

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
- AWS SDK for JavaScript
- 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 (p. 360)
- AttributeValue (p. 362)
- AwsCredentials (p. 364)
- Build (p. 365)
- CertificateConfiguration (p. 367)
- DesiredPlayerSession (p. 368)
- EC2InstanceCounts (p. 369)
- EC2InstanceLimit (p. 371)
- Event (p. 373)
- FleetAttributes (p. 376)
- FleetCapacity (p. 381)
- FleetUtilization (p. 383)
- GameProperty (p. 385)
- GameServer (p. 386)
- GameServerGroup (p. 389)
- GameServerGroupAutoScalingPolicy (p. 393)
- GameSession (p. 394)
- GameSessionConnectionInfo (p. 398)
- GameSessionDetail (p. 400)
- GameSessionPlacement (p. 401)
- GameSessionQueue (p. 405)
- GameSessionQueueDestination (p. 407)
- Instance (p. 408)
- InstanceAccess (p. 410)
- InstanceCredentials (p. 412)
- InstanceDefinition (p. 413)
- IpPermission (p. 414)
- LaunchTemplateSpecification (p. 416)
- MatchedPlayerSession (p. 418)
- MatchmakingConfiguration (p. 419)
- MatchmakingRuleSet (p. 423)
- MatchmakingTicket (p. 425)
- PlacedPlayerSession (p. 428)
- Player (p. 429)
- PlayerLatency (p. 431)
• PlayerLatencyPolicy (p. 432)
• PlayerSession (p. 433)
• ResourceCreationLimitPolicy (p. 436)
• RoutingStrategy (p. 437)
• RuntimeConfiguration (p. 439)
• S3Location (p. 441)
• ScalingPolicy (p. 443)
• Script (p. 447)
• ServerProcess (p. 449)
• Tag (p. 450)
• TargetConfiguration (p. 451)
• TargetTrackingConfiguration (p. 452)
• VpcPeeringAuthorization (p. 453)
• VpcPeeringConnection (p. 455)
• VpcPeeringConnectionStatus (p. 457)
Alias

Properties that describe an alias resource.

- CreateAlias (p. 13)
- ListAliases (p. 214)
- DescribeAlias (p. 117)
- UpdateAlias (p. 307)
- DeleteAlias (p. 86)
- ResolveAlias (p. 255)

Contents

Note

In the following list, the required parameters are described first.

AliasArn

Amazon Resource Name (ARN) that is assigned to a GameLift alias resource and uniquely identifies it. ARNs are unique across all Regions. 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 an 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
Pattern: .\S\.*
Required: No

RoutingStrategy
The routing configuration, including routing type and fleet target, for the alias.
Type: RoutingStrategy (p. 437) 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
- AWS SDK for Ruby V3
AttributeValue

Values for use in Player (p. 429) 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
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 1024.
Required: No

SL
For a list of up to 10 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
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
- AWS SDK for Ruby V3
AwsCredentials

Temporary access credentials used for uploading game build files to Amazon GameLift. They are valid for a limited time. If they expire before you upload your game build, get a new set by calling RequestUploadCredentials (p. 252).

Contents

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

AccessKeyId
Temporary key allowing access to the Amazon GameLift S3 account.
Type: String
Length Constraints: Minimum length of 1.
Required: No

SecretAccessKey
Temporary secret key allowing access to the Amazon GameLift S3 account.
Type: String
Length Constraints: Minimum length of 1.
Required: No

SessionToken
Token used to associate a specific build ID with the files uploaded using these 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
- AWS SDK for Ruby V3
Build

Properties describing a custom game build.

**Related operations**

- CreateBuild (p. 17)
- ListBuilds (p. 217)
- DescribeBuild (p. 120)
- UpdateBuild (p. 310)
- DeleteBuild (p. 88)

**Contents**

*Note*

In the following list, the required parameters are described first.

**BuildArn**

Amazon Resource Name (ARN) that is assigned to a GameLift build resource and uniquely identifies it. ARNs are unique across all Regions. 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 a build.

Type: String

Pattern: `^build-\S+$`

Required: No

**CreationTime**

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 build. Build names do not need to be unique. It can be set using CreateBuild (p. 17) or UpdateBuild (p. 310).

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
Required: No

SizeOnDisk
File size of the uploaded game build, expressed in bytes. When the build status is INITIALIZED, 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 that is associated with a build or script. Version strings do not need to be unique. This value can be set using CreateBuild (p. 17) or UpdateBuild (p. 310).
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
- AWS SDK for Ruby V3
CertificateConfiguration

Information about the use of a TLS/SSL certificate for a fleet. TLS certificate generation is enabled at the fleet level, with one certificate generated for the fleet. When this feature is enabled, the certificate can be retrieved using the GameLift Server SDK call GetInstanceCertificate. All instances in a fleet share the same certificate.

Contents

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

CertificateType

Indicates whether a TLS/SSL certificate was generated for a 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
- AWS SDK for Ruby V3
DesiredPlayerSession

Player information for use when creating player sessions using a game session placement request with StartGameSessionPlacement (p. 274).

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


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
- AWS SDK for Ruby V3
EC2InstanceCounts

Current status of fleet capacity. The number of active instances should match or be in the process of matching the number of desired instances. Pending and terminating counts are non-zero only if fleet capacity is adjusting to an UpdateFleetCapacity (p. 318) request, or if access to resources is temporarily affected.

- CreateFleet (p. 23)
- ListFleets (p. 222)
- DeleteFleet (p. 91)
- DescribeFleetAttributes (p. 126)
- UpdateFleetAttributes (p. 314)
- StartFleetActions (p. 271) or StopFleetActions (p. 289)

Contents

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

ACTIVE

Actual number of active instances in the fleet.
Type: Integer
Valid Range: Minimum value of 0.
Required: No

DESIRED

Ideal number of active instances in the fleet.
Type: Integer
Valid Range: Minimum value of 0.
Required: No

IDLE

Number of active instances in the fleet that are not currently hosting a game session.
Type: Integer
Valid Range: Minimum value of 0.
Required: No

MAXIMUM

The maximum value allowed for the fleet's instance count.
Type: Integer
Valid Range: Minimum value of 0.
Required: No
MINIMUM

The minimum value allowed for the fleet's instance count.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

PENDING

Number of instances in the fleet that are starting but not yet active.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

TERMINATING

Number of instances in the fleet 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
- AWS SDK for Ruby V3
EC2InstanceLimit

The maximum number of instances allowed based on the Amazon Elastic Compute Cloud (Amazon EC2) instance type. Instance limits can be retrieved by calling DescribeEC2InstanceLimits (p. 123).

Contents

Note

In the following list, the required parameters are described first.

CurrentInstances

Number of instances of the specified type that are currently in use by this AWS account.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

EC2InstanceType

Name of an 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. Amazon GameLift supports the following EC2 instance types. See Amazon EC2 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 | 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 | 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

Required: No

InstanceLimit

Number of instances allowed.

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
• 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 creation events (ordered by fleet creation activity):**

- **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_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 Amazon 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 Amazon 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_STATE_VALIDATING** -- Fleet status changed from DOWNLOADING to VALIDATING.
- **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_STATE_BUILDING** -- Fleet status changed from VALIDATING to BUILDING.
- **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_STATE_ACTIVATING** -- Fleet status changed from BUILDING to ACTIVATING.
- **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. Learn more at Debug Fleet Creation Issues.
- **FLEET_STATE_ACTIVE** -- The fleet's status changed from ACTIVATING to ACTIVE. The fleet is now ready to host game sessions.

**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 (see DescribeVpcPeeringConnections (p. 203)) 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.

**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

**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


Required: No

**ResourceId**

A unique identifier for an event resource, such as a fleet ID.

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
- AWS SDK for Ruby V3
FleetAttributes

General properties describing a fleet.

- CreateFleet (p. 23)
- ListFleets (p. 222)
- DeleteFleet (p. 91)
- DescribeFleetAttributes (p. 126)
- UpdateFleetAttributes (p. 314)
- StartFleetActions (p. 271) or StopFleetActions (p. 289)

Contents

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

BuildArn

The Amazon Resource Name (ARN) associated with the 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 a build.

Type: String

Pattern: ^build-\S+

Required: No

CertificateConfiguration

Indicates whether a TLS/SSL certificate was generated for the fleet.

Type: CertificateConfiguration (p. 367) object

Required: No

CreationTime

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

Human-readable description of the fleet.

Type: String

Required: No

**FleetArn**

The Amazon Resource Name (ARN) that is assigned to a GameLift fleet resource and uniquely identifies it. ARNs are unique across all Regions. 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 a fleet.

Type: String

Pattern: `^fleet-\S+$`

Required: No

**FleetType**

Indicates whether the fleet uses on-demand or spot instances. A spot instance in use may be interrupted with a two-minute notification.

Type: String

Valid Values: ON_DEMAND | SPOT

Required: No

**InstanceRoleArn**

A unique identifier for an AWS IAM role that manages access to your AWS services. With an instance role ARN set, any application that runs on an instance in this fleet can assume the role, including install scripts, server processes, and daemons (background processes). Create a role or look up a role's ARN from the IAM dashboard in the AWS Management Console. Learn more about using on-box credentials for your game servers at Access external resources from a game server.

Type: String

Length Constraints: Minimum length of 1.

Required: No

**InstanceType**

EC2 instance type indicating the computing resources of each instance in the fleet, including CPU, memory, storage, and networking capacity. See Amazon EC2 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 | r3.large | r3.xlarge | r3.2xlarge | r3.4xlarge | r3.8xlarge | r4.large | r4.xlarge | r4.2xlarge
## LogPaths

Location of default log files. When a server process is shut down, Amazon GameLift captures and stores any log files in this location. These logs are in addition to game session logs; see more on game session logs in the Amazon GameLift Developer Guide. If no default log path for a fleet is specified, Amazon GameLift automatically uploads logs that are stored on each instance at `C:\game\logs` (for Windows) or `/local/game/logs` (for Linux). Use the Amazon GameLift console to access stored logs.

Type: Array of strings


Required: No

## MetricGroups

Names of metric groups that this fleet is included in. In Amazon CloudWatch, you can view metrics for an individual fleet or aggregated metrics for fleets that are in a fleet 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


Required: No

## NewGameSessionProtectionPolicy

The type of game session protection to set for all new instances 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

Operating system of the fleet's computing resources. A fleet's operating system depends on the OS specified for the build that is deployed on this fleet.
Type: String

Valid Values: WINDOWS_2012 | AMAZON_LINUX | AMAZON_LINUX_2

Required: No

**ResourceCreationLimitPolicy**

Fleet policy to limit the number of game sessions an individual player can create over a span of time.

Type: `ResourceCreationLimitPolicy (p. 436)` 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 a Realtime script.

Type: String

Pattern: ^script-\S+$

Required: No

**ServerLaunchParameters**

Game server launch parameters specified for fleets created before 2016-08-04 (or AWS SDK v. 0.12.16). Server launch parameters for fleets created after this date are specified in the fleet's `RuntimeConfiguration (p. 439)`.

Type: String


Required: No

**ServerLaunchPath**

Path to a game server executable in the fleet's build, specified for fleets created before 2016-08-04 (or AWS SDK v. 0.12.16). Server launch paths for fleets created after this date are specified in the fleet's `RuntimeConfiguration (p. 439)`.

Type: String


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

Required: No

**StoppedActions**

List of fleet actions that have been suspended using StopFleetActions (p. 289). This includes auto-scaling.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: AUTO_SCALING

Required: No

**TerminationTime**

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
- AWS SDK for Ruby V3
FleetCapacity

Information about the fleet's capacity. Fleet capacity is measured in EC2 instances. By default, new fleets have a capacity of one instance, but can be updated as needed. The maximum number of instances for a fleet is determined by the fleet's instance type.

- CreateFleet (p. 23)
- ListFleets (p. 222)
- DeleteFleet (p. 91)
- DescribeFleetAttributes (p. 126)
- UpdateFleetAttributes (p. 314)
- StartFleetActions (p. 271) or StopFleetActions (p. 289)

Contents

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

FleetId
A unique identifier for a fleet.
Type: String
Pattern: ^fleet-\S+
Required: No

InstanceCounts
Current status of fleet capacity.
Type: EC2InstanceCounts (p. 369) object
Required: No

InstanceType
Name of an 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. Amazon GameLift supports the following EC2 instance types. See Amazon EC2 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 | 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 |
            | 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 |
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
- AWS SDK for Ruby V3
FleetUtilization

Current status of fleet utilization, including the number of game and player sessions being hosted.

- CreateFleet (p. 23)
- ListFleets (p. 222)
- DeleteFleet (p. 91)
- DescribeFleetAttributes (p. 126)
- UpdateFleetAttributes (p. 314)
- StartFleetActions (p. 271) or StopFleetActions (p. 289)

Contents

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

**ActiveGameSessionCount**
Number of active game sessions currently being hosted on all instances in the fleet.
Type: Integer
Valid Range: Minimum value of 0.
Required: No

**ActiveServerProcessCount**
Number of server processes in an **ACTIVE** status currently running across all instances in the fleet
Type: Integer
Valid Range: Minimum value of 0.
Required: No

**CurrentPlayerSessionCount**
Number of active player sessions currently being hosted on all instances in the fleet.
Type: Integer
Valid Range: Minimum value of 0.
Required: No

**FleetId**
A unique identifier for a fleet.
Type: String
Pattern: ^fleet-\S+
Required: No

**MaximumPlayerSessionCount**
The maximum number of players allowed across all game sessions currently being hosted on all instances in the fleet.
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
- AWS SDK for Ruby V3
GameProperty

Set of key-value pairs that contain information about a game session. When included in a game session request, these properties communicate details to be used when setting up the new game session. For example, a game property might specify a game mode, level, or map. Game properties are passed to the game server process when initiating a new game session. For more information, see the Amazon GameLift Developer Guide.

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
- AWS SDK for Ruby V3
GameServer

This data type is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

Properties describing a game server resource.

A game server resource is created by a successful call to RegisterGameServer (p. 247) and deleted by calling DeregisterGameServer (p. 114).

Contents

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

ClaimStatus

Indicates when an available game server has been reserved but has not yet started hosting a game. Once it is claimed, game server remains in CLAIMED status for a maximum of one minute. During this time, game clients must connect to the game server and start the game, which triggers 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


Pattern: .*\S.*

Required: No

CustomSortKey

A game server tag that can be used to request sorted lists of game servers when calling ListGameServers (p. 229). Custom sort keys are developer-defined. This property can be updated using UpdateGameServer (p. 326).

Type: String

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

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

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 in response to requests ListGameServers (p. 229) or ClaimGameServer (p. 8). This property can be updated using UpdateGameServer (p. 326).

Type: String

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**

The name identifier for the game server group where the game server is located.

Type: String


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


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

Required: No

**InstanceId**

The unique identifier for the instance where the game server is located.

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 with a **ClaimGameServer** (p. 8) request. The format is a number expressed in Unix time as milliseconds (for example "1469498468.057"). This value is used to calculate when the game server's claim status.

Type: Timestamp

Required: No
LastHealthCheckTime

Timestamp that indicates the last time the game server was updated with health status using an `UpdateGameServer` request. 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 resource was created with a `RegisterGameServer` request. 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.
- IN_USE - 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
- AWS SDK for Ruby V3
GameServerGroup

This data type is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

Properties that describe a game server group resource. A game server group manages certain properties of a corresponding EC2 Auto Scaling group.

A game server group is created by a successful call to CreateGameServerGroup (p. 35) and deleted by calling DeleteGameServerGroup (p. 94). Game server group activity can be temporarily suspended and resumed by calling SuspendGameServerGroup (p. 297) and ResumeGameServerGroup (p. 258), respectively.

Contents

Note

In the following list, the required parameters are described first.

AutoScalingGroupArn

A generated unique ID for the 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: 

Required: No

BalancingStrategy

The fallback balancing method to use for the game server group when Spot Instances in a Region become unavailable or are not viable for game hosting. Once triggered, this method remains active until Spot Instances can once again be used. Method options include the following:

- **SPOT_ONLY** - If Spot Instances are unavailable, the game server group provides no hosting capacity. No new instances are started. Existing nonviable Spot Instances are terminated (after current gameplay ends) and are not replaced.
- **SPOT_PREFERRED** - If Spot Instances are unavailable, the game server group continues to provide hosting capacity by using On-Demand Instances. Existing nonviable Spot Instances are terminated (after current gameplay ends) and are replaced with new On-Demand Instances.

Type: String

Valid Values: SPOT_ONLY | SPOT_PREFERRED

Required: No

CreationTime

A timestamp that indicates 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
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 DeleteGameServerGroup (p. 94)). An exception to this is 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 EC2 instance types that GameLift FleetIQ can use when rebalancing and automatically
scaling instances in the group.

Type: Array of InstanceDefinition (p. 413) 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
EC2 Auto Scaling groups. The submitted role is validated to ensure that it contains the necessary
permissions for game server 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** - GameLift FleetIQ has validated the `CreateGameServerGroup()` request.
- **ACTIVATING** - 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** - GameLift FleetIQ has received a valid `DeleteGameServerGroup()` request and is processing it. 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


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
- AWS SDK for Ruby V3
GameServerGroupAutoScalingPolicy

This data type is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

Configuration settings for intelligent automatic scaling that uses target tracking. An Auto Scaling policy can be specified when a new game server group is created with CreateGameServerGroup (p. 35). This policy is passed to the corresponding Auto Scaling group. The Auto Scaling group takes action based on this policy, as well as (and potentially in conflict with) other scaling policies that are separately applied to 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 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 (p. 452) object

Required: Yes

EstimatedInstanceWarmup

Length of time, in seconds, it takes for a new instance to start new game server processes and register with 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
- 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.

Once the session ends, the game session object is retained for 30 days. This means you can reuse idempotency token values after this time. Game session logs are retained for 14 days.

- CreateGameSession (p. 44)
- DescribeGameSessions (p. 167)
- DescribeGameSessionDetails (p. 157)
- SearchGameSessions (p. 262)
- UpdateGameSession (p. 336)
- GetGameSessionLogUrl (p. 206)
- Game session placements
  - StartGameSessionPlacement (p. 274)
  - DescribeGameSessionPlacement (p. 161)
  - StopGameSessionPlacement (p. 292)

Contents

**Note**

In the following list, the required parameters are described first.

**CreationTime**

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


Required: No

**CurrentPlayerSessionCount**

Number of players currently in the game session.

Type: Integer

Valid Range: Minimum value of 0.

Required: No
**DnsName**

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\:/\:S+$`

Required: No

**FleetId**

A unique identifier for a fleet that the game session is running on.

Type: String

Pattern: `^\:S+$`

Required: No

**GameProperties**

Set of custom properties for a game session, formatted as key:value pairs. These properties are passed to a game server process in the GameSession (p. 394) object with a request to start a new game session (see Start a Game Session). You can search for active game sessions based on this custom data with SearchGameSessions (p. 262).

Type: Array of GameProperty (p. 385) objects

Array Members: Maximum number of 16 items.

Required: No

**GameSessionData**

Set of custom game session properties, formatted as a single string value. This data is passed to a game server process in the GameSession (p. 394) object with a request to start a new game session (see Start a Game Session).

Type: String


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
Required: No

**IpAddress**
IP address of the instance that is running the game session. When connecting to a Amazon GameLift game server, a client needs to reference an IP address (or DNS name) and port number.

Type: String
Required: No

**MatchmakerData**
Information about the matchmaking process that was used to create the game session. It is in JSON syntax, formatted as a string. In addition the matchmaking configuration used, it contains data on all players assigned to the match, including player attributes and team assignments. For more details on matchmaker data, see Match Data. Matchmaker data is useful when requesting match backfills, and is updated whenever new players are added during a successful backfill (see StartMatchBackfill (p. 280)).

Type: String
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
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**
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**

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
- AWS SDK for Ruby V3
GameSessionConnectionInfo

Connection information for the new game session that is created with matchmaking. (with StartMatchmaking (p. 284)). Once a match is set, the FlexMatch engine places the match and 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 MatchmakingTicket (p. 425), which can be retrieved by calling DescribeMatchmaking (p. 175).

Contents

**Note**

In the following list, the required parameters are described first.

**DnsName**

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**

Amazon Resource Name (ARN) that is assigned to a game session and uniquely identifies it.

Type: String

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

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

Required: No

**IpAddress**

IP address of the instance that is running the game session. When connecting to a Amazon GameLift game server, a client needs to reference an IP address (or DNS name) and port number.

Type: String

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 (p. 418) objects

Required: No

**Port**

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
- 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 (p. 394) 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
- AWS SDK for Ruby V3
GameSessionPlacement

Object that describes a StartGameSessionPlacement (p. 274) request. This object includes the full details of the original request plus the current status and start/end time stamps.

Game session placement-related operations include:

- StartGameSessionPlacement (p. 274)
- DescribeGameSessionPlacement (p. 161)
- StopGameSessionPlacement (p. 292)

Contents

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

DnsName

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

Set of custom properties for a game session, formatted as key:value pairs. These properties are passed to a game server process in the GameSession (p. 394) object with a request to start a new game session (see Start a Game Session).

Type: Array of GameProperty (p. 385) objects
Array Members: Maximum number of 16 items.
Required: No

GameSessionArn

Identifier for the game session created by this placement request. This value is set once the new game session is placed (placement status is FULFILLED). This identifier is unique across all Regions. You can use this value as a GameSessionId value as needed.

Type: String
**GameSessionData**

Set of custom game session properties, formatted as a single string value. This data is passed to a game server process in the GameSession (p. 394) object with a request to start a new game session (see Start a Game Session).

Type: String


**GameSessionId**

A unique identifier for the game session. This value is set once the new game session is placed (placement status is FULFILLED).

Type: String


**GameSessionName**

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

Type: String


**GameSessionQueueName**

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

Type: String


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

**GameSessionRegion**

Name of the Region where the game session created by this placement request is running. This value is set once the new game session is placed (placement status is FULFILLED).

Type: String


**IpAddress**

IP address of the instance that is running the game session. When connecting to a Amazon GameLift game server, a client needs to reference an IP address (or DNS name) and port number. This value is set once the new game session is placed (placement status is FULFILLED).

Type: String
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


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 once a new game session is successfully placed (placement status is FULFILLED). This information includes the player ID (as provided in the placement request) and the corresponding player session ID. Retrieve full player sessions by calling [DescribePlayerSessions](#) (p. 185) with the player session ID.

Type: Array of [PlacedPlayerSession](#) (p. 428) objects

Required: No

**PlacementId**

A unique identifier for a game session placement.

Type: String


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

Required: No

**PlayerLatencies**

Set of values, expressed in milliseconds, indicating the amount of latency that a player experiences when connected to AWS Regions.

Type: Array of [PlayerLatency](#) (p. 431) objects

Required: No

**Port**

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 is set once the new game session is placed (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 currently in the queue waiting to be processed.
- **FULFILLED** -- A new game session and player sessions (if requested) have been successfully created. Values for `GameSessionArn` and `GameSessionRegion` are available.
- **CANCELLED** -- The placement request was canceled with a call to `StopGameSessionPlacement` (p. 292).
- **TIMED_OUT** -- A new game session was not successfully created before the time limit expired. You can resubmit the placement request as needed.
- **FAILED** -- 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
- AWS SDK for Ruby V3
GameSessionQueue

Configuration of a queue that is used to process game session placement requests. The queue configuration identifies several game features:

- The destinations where a new game session can potentially be hosted. Amazon GameLift tries these destinations in an order based on either the queue's default order or player latency information, if provided in a placement request. With latency information, Amazon GameLift can place game sessions where the majority of players are reporting the lowest possible latency.
- The length of time that placement requests can wait in the queue before timing out.
- A set of optional latency policies that protect individual players from high latencies, preventing game sessions from being placed where any individual player is reporting latency higher than a policy's maximum.

- CreateGameSessionQueue (p. 50)
- DescribeGameSessionQueues (p. 164)
- UpdateGameSessionQueue (p. 340)
- DeleteGameSessionQueue (p. 98)

Contents

Note

In the following list, the required parameters are described first.

Destinations

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

Type: Array of GameSessionQueueDestination (p. 407) objects

Required: No

GameSessionQueueArn

Amazon Resource Name (ARN) that is assigned to a GameLift game session queue resource and uniquely identifies it. ARNs are unique across all Regions. In a 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

Pattern: [a-zA-Z0-9-]+
Required: No

PlayerLatencyPolicies

A collection of latency policies to apply when processing game sessions placement requests with player latency information. Multiple policies are evaluated in order of the maximum latency value, starting with the lowest latency values. With just one policy, the policy is enforced at the start of the game session placement for the duration period. With multiple policies, each policy is enforced consecutively for its duration period. For example, a queue might enforce a 60-second policy followed by a 120-second policy, and then no policy for the remainder of the placement.

Type: Array of PlayerLatencyPolicy (p. 432) objects
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.

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
- AWS SDK for Ruby V3
GameSessionQueueDestination

Fleet designated in a game session queue. Requests for new game sessions in the queue are fulfilled by starting a new game session on any destination that is configured for a queue.

- CreateGameSessionQueue (p. 50)
- DescribeGameSessionQueues (p. 164)
- UpdateGameSessionQueue (p. 340)
- DeleteGameSessionQueue (p. 98)

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
- AWS SDK for Ruby V3
Instance

Properties that describe an instance of a virtual computing resource that hosts one or more game servers. A fleet may contain zero or more instances.

Contents

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

**CreationTime**

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**

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

**FleetId**

A unique identifier for a fleet that the instance is in.

Type: String

Pattern: `^fleet-\S+$`

Required: No

**InstanceId**

A unique identifier for an instance.

Type: String

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

Required: No

**IpAddress**

IP address that is assigned to the instance.

Type: String

Required: No
OperatingSystem

Operating system that is running on this instance.

Type: String

Valid Values: WINDOWS_2012 | AMAZON_LINUX | AMAZON_LINUX_2

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 | 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 | 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

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
- AWS SDK for Ruby V3
InstanceAccess

Information required to remotely connect to a fleet instance. Access is requested by calling GetInstanceAccess (p. 209).

Contents

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

Credentials

Credentials required to access the instance.
Type: InstanceCredentials (p. 412) object
Required: No

FleetId

A unique identifier for a fleet containing the instance being accessed.
Type: String
Pattern: ^fleet-\S+
Required: No

InstanceId

A unique identifier for an instance being accessed.
Type: String
Pattern: [a-zA-Z0-9\.-]+
Required: No

IpAddress

IP address that is assigned to the instance.
Type: String
Required: No

OperatingSystem

Operating system that is running on the instance.
Type: String
Valid Values: WINDOWS_2012 | AMAZON_LINUX | AMAZON_LINUX_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++
See Also

- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
InstanceCredentials

Set of credentials required to remotely access a fleet instance. Access credentials are requested by calling
GetInstanceAccess (p. 209) and returned in an InstanceAccess (p. 410) object.

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 is a private key (which must be saved as a .pem file) for use with SSH.

Type: String
Length Constraints: Minimum length of 1.
Required: No

UserName

User login string.

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
- AWS SDK for Ruby V3
InstanceDefinition

This data type is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

An allowed instance type for your game server group. 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 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 | 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 | m4.large | m4.xlarge | m4.2xlarge | m4.10xlarge | m5.large | m5.xlarge | m5.2xlarge | m5.4xlarge | m5.8xlarge | m5.12xlarge | m5.16xlarge | m5.24xlarge

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 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 EC2 Auto Scaling User Guide. Default value is "1".

Type: String


Pattern: ^[1-9][0-9]{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
- 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 Amazon GameLift hosting resource. New game sessions that are started on the fleet are assigned an IP address/port number combination, which must fall into the fleet's allowed ranges. For fleets created with a custom game server, the ranges reflect the server's game session assignments. For Realtime Servers fleets, Amazon GameLift automatically opens two port ranges, one for TCP messaging and one for UDP for use by the Realtime servers.

**Contents**

**Note**

In the following list, the required parameters are described first.

**FromPort**

A starting value for a range of allowed port numbers.

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 higher than FromPort.

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:
See Also

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java
- AWS SDK for Ruby V3
LaunchTemplateSpecification

This data type is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

An EC2 launch template that contains configuration settings and game server code to be deployed to all instances in a game server group.

Contents

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

LaunchTemplateName

A unique identifier for an existing EC2 launch template.

Type: String

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

Pattern: [ -퟿-�𐀀-􏿿]+

Required: No

LaunchTemplateName

A readable identifier for an existing EC2 launch template.

Type: String


Pattern: [a-zA-Z0-9\(\)\._/-]+

Required: No

Version

The version of the 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


Pattern: [ -퟿-�𐀀-􏿿]+

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
• 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


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
- 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.

- Type: Boolean
- Required: No

**AcceptanceTimeoutSeconds**
The length of time (in seconds) to wait for players to accept a proposed match. If any player rejects the match or fails to accept before the timeout, the ticket continues to look for an acceptable match.

- Type: Integer
- Required: No

**AdditionalPlayerCount**
The number of player slots in a match to keep open for future players. For example, assume that the configuration's rule set specifies a match for a single 12-person team. If the additional player count is set to 2, only 10 players are initially selected for the match.

- 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 StartMatchBackfill (p. 280) requests whenever a game session has one or more open slots. Learn more about manual and automatic backfill in Backfill Existing Games with FlexMatch.

- Type: String
- Valid Values: AUTOMATIC | MANUAL
- Required: No

**ConfigurationArn**
Amazon Resource Name (ARN) that is assigned to a GameLift matchmaking configuration resource and uniquely identifies it. ARNs are unique across all Regions. In a GameLift configuration ARN, the resource ID matches the Name value.
Type: String

Pattern: ^arn:.*:matchmakingconfiguration\/[a-zA-Z0-9-\./]*

Required: No

**CreationTime**

The time stamp indicating when this data object was created. The 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


Required: No

**GameProperties**

A set of custom properties for a game session, formatted as key-value pairs. These properties are passed to a game server process in the GameSession (p. 394) object with a request to start a new game session (see Start a Game Session). This information is added to the new GameSession (p. 394) object that is created for a successful match.

Type: Array of GameProperty (p. 385) 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 (p. 394) object with a request to start a new game session (see Start a Game Session). This information is added to the new GameSession (p. 394) object that is created for a successful match.

Type: String


Required: No

**GameSessionQueueArns**

Amazon Resource Name (ARN) that is assigned to a GameLift game session queue resource and uniquely identifies it. ARNs are unique across all Regions. GameLift uses the listed queues when
placing game sessions for matches that are created with this matchmaking configuration. Queues can be located in any Region.

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 a 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-:_/-]*
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
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 a 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
- 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. Rule sets are used in MatchmakingConfiguration (p. 419) objects.

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


Required: Yes

CreationTime

The time stamp indicating when this data object was created. The format is a number expressed in Unix time as milliseconds (for example “1469498468.057”).

Type: Timestamp

Required: No

RuleSetArn

Amazon Resource Name (ARN) that is assigned to a GameLift matchmaking rule set resource and uniquely identifies it. ARNs are unique across all Regions. 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 a 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
- 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 with StartMatchmaking (p. 284). Tickets can be retrieved by calling DescribeMatchmaking (p. 175) with the ticket ID.

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 MatchmakingConfiguration (p. 419) 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 this matchmaking request stopped being processed due to success, failure, 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**

Identifier and connection information of the game session created for the match. This information is added to the ticket only after the matchmaking request has been successfully completed.
Type: GameSessionConnectionInfo (p. 398) 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` (p. 429) 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 (see `AcceptMatch` (p. 5)). 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 call to `StopMatchmaking` (p. 295) 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
- AWS SDK for Ruby V3
PlacedPlayerSession

Information about a player session that was created as part of a StartGameSessionPlacement (p. 274) request. This object contains only the player ID and player session ID. To retrieve full details on a player session, call DescribePlayerSessions (p. 185) with the player session ID.

- CreatePlayerSession (p. 64)
- CreatePlayerSessions (p. 67)
- DescribePlayerSessions (p. 185)
- Game session placements
  - StartGameSessionPlacement (p. 274)
  - DescribeGameSessionPlacement (p. 161)
  - StopGameSessionPlacement (p. 292)

## 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


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
- 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**

Set of values, expressed in milliseconds, indicating 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"}).

Type: String to `AttributeValue` (p. 362) object map

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

Required: No

**PlayerId**

A unique identifier for a player

Type: String


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


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
- AWS SDK for Ruby V3
PlayerLatency

Regional latency information for a player, used when requesting a new game session with StartGameSessionPlacement (p. 274). 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
Required: No

RegionIdentifier

Name of the Region that is associated with the latency value.

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
- AWS SDK for Ruby V3
PlayerLatencyPolicy

Queue setting that determines the highest latency allowed for individual players when placing a game session. When a latency policy is in force, a game session cannot be placed with any fleet in a Region where a player reports latency higher than the cap. Latency policies are only enforced when the placement request contains player latency information.

- CreateGameSessionQueue (p. 50)
- DescribeGameSessionQueues (p. 164)
- UpdateGameSessionQueue (p. 340)
- DeleteGameSessionQueue (p. 98)

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
- AWS SDK for Ruby V3
PlayerSession

Properties describing a player session. Player session objects are created either by creating a player session for a specific game session, or as part of a game session placement. A player session represents either a player reservation for a game session (status RESERVED) or actual player activity in a game session (status 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.

When a player disconnects, the player session status changes to COMPLETED. Once the session ends, the player session object is retained for 30 days and then removed.

- CreatePlayerSession (p. 64)
- CreatePlayerSessions (p. 67)
- DescribePlayerSessions (p. 185)
- Game session placements
  - StartGameSessionPlacement (p. 274)
  - DescribeGameSessionPlacement (p. 161)
  - StopGameSessionPlacement (p. 292)

Contents

**Note**

In the following list, the required parameters are described first.

**CreationTime**

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**

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 a 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
Required: No

**IpAddress**
IP address of the instance that is running the game session. When connecting to a Amazon GameLift game server, a client needs to reference an IP address (or DNS name) and port number.
Type: String
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
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**

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
- AWS SDK for Ruby V3
ResourceCreationLimitPolicy

A policy that limits the number of game sessions a player can create on the same fleet. This optional policy gives game owners control over how players can consume available game server resources. A resource creation policy makes the following statement: "An individual player can create a maximum number of new game sessions within a specified time period".

The policy is evaluated when a player tries to create a new game session. For example: Assume you have a policy of 10 new game sessions and a time period of 60 minutes. On receiving a CreateGameSession request, Amazon GameLift checks that the player (identified by CreatorId) has created fewer than 10 game sessions in the past 60 minutes.

Contents

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

NewGameSessionsPerCreator
The maximum number of game sessions that an individual can create during the policy 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
- AWS SDK for Ruby V3
RoutingStrategy

The routing configuration for a fleet alias.

- CreateAlias (p. 13)
- ListAliases (p. 214)
- DescribeAlias (p. 117)
- UpdateAlias (p. 307)
- DeleteAlias (p. 86)
- ResolveAlias (p. 255)

Contents

Note

In the following list, the required parameters are described first.

FleetId

The unique identifier for a 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 RoutingStrategy (p. 437) 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
• AWS SDK for Ruby V3
RuntimeConfiguration

A collection of server process configurations that describe what processes to run on each instance in a fleet. Server processes run either a custom game build executable or a Realtime Servers script. Each instance in the fleet starts the specified server processes and continues to start new processes as existing processes end. Each instance regularly checks for an updated runtime configuration.

The runtime configuration enables the instances in a fleet to run multiple processes simultaneously. Learn more about Running Multiple Processes on a Fleet.

A Amazon GameLift instance is limited to 50 processes running simultaneously. To calculate the total number of processes in a runtime configuration, add the values of the ConcurrentExecutions parameter for each ServerProcess (p. 449) object.

- CreateFleet (p. 23)
- ListFleets (p. 222)
- DeleteFleet (p. 91)
- DescribeFleetAttributes (p. 126)
- UpdateFleetAttributes (p. 314)
- StartFleetActions (p. 271) or StopFleetActions (p. 289)

Contents

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

GameSessionActivationTimeoutSeconds

The maximum amount of time (in seconds) that a game session can remain in status ACTIVATING. If the game session is not active before the timeout, activation is terminated and the game session status is changed to TERMINATED.

Type: Integer


Required: No

MaxConcurrentGameSessionActivations

The maximum number of game sessions with status ACTIVATING to allow on an instance simultaneously. This setting limits the amount of instance resources that can be used for new game activations at any one time.

Type: Integer


Required: No

ServerProcesses

A collection of server process configurations that describe which server processes to run on each instance in a fleet.

Type: Array of ServerProcess (p. 449) 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
- AWS SDK for Ruby V3
S3Location

The location in S3 where build or script files are stored for access by Amazon GameLift. This location is specified in CreateBuild (p. 17), CreateScript (p. 71), and UpdateScript (p. 351) requests.

Contents

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

Bucket
An S3 bucket identifier. This is the name of the S3 bucket.

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
See Also

- AWS SDK for Java
- 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.

- DescribeFleetCapacity (p. 132)
- UpdateFleetCapacity (p. 318)
- DescribeEC2InstanceLimits (p. 123)
- Manage scaling policies:
  - PutScalingPolicy (p. 239) (auto-scaling)
  - DescribeScalingPolicies (p. 193) (auto-scaling)
  - DeleteScalingPolicy (p. 104) (auto-scaling)
- Manage fleet actions:
  - StartFleetActions (p. 271)
  - StopFleetActions (p. 289)

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

**FleetId**

A unique identifier for a fleet that is associated with this scaling policy.

Type: String

Pattern: ^fleet-\S+

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

Required: No

**Name**

A descriptive label that is associated with a scaling policy. Policy names do not need to be unique.

Type: String


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 (see FleetCapacity (p. 381)):

- **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 (see StopFleetActions (p. 289); if suspended for a fleet, the policy status does not change. View a fleet's stopped actions by calling DescribeFleetCapacity (p. 132).

- **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

The settings for a target-based scaling policy.

Type: TargetConfiguration (p. 451) object

Required: No

Threshold

Metric value used to trigger a scaling event.

Type: Double

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
• AWS SDK for Ruby V3
Script

Properties describing a Realtime script.

Related operations

- CreateScript (p. 71)
- ListScripts (p. 232)
- DescribeScript (p. 198)
- UpdateScript (p. 351)
- DeleteScript (p. 107)

Contents

Note

In the following list, the required parameters are described first.

CreationTime

A time stamp indicating when this data object was created. The 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 do not need to be unique.

Type: String


Required: No

ScriptArn

Amazon Resource Name (ARN) that is assigned to a 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 a 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".
StorageLocation

The location in S3 where build or script files are stored for access by Amazon GameLift. This location is specified in CreateBuild (p. 17), CreateScript (p. 71), and UpdateScript (p. 351) requests.

Type: S3Location (p. 441) object

Required: No

Version

The version that is associated with a build or script. Version strings do not 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
- AWS SDK for Ruby V3
ServerProcess

A set of instructions for launching server processes on each instance in a fleet. Server processes run either a custom game build executable or a Realtime Servers script. Each instruction set identifies the location of the custom game build executable or Realtime launch script, optional launch parameters, and the number of server processes with this configuration to maintain concurrently on the instance. Server process configurations make up a fleet's RuntimeConfiguration (p. 439).

Contents

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

ConcurrentExecutions

The number of server processes that use this configuration to run concurrently on an instance.

Type: Integer

Valid Range: Minimum value of 1.

Required: Yes

LaunchPath

The location of the server executable in a custom game build or the name of the Realtime script file that contains the Init() function. Game builds and Realtime scripts are installed on instances at the root:
- Windows (for 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"

Type: String


Required: Yes

Parameters

An optional list of parameters to pass to the server executable or Realtime script on launch.

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
- AWS SDK for Ruby V3
Tag

A label that can be assigned to a GameLift resource.

Learn more

Tagging AWS Resources in the AWS General Reference

AWS Tagging Strategies

Related operations

• TagResource (p. 301)
• UntagResource (p. 304)
• ListTagsForResource (p. 236)

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


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
• AWS SDK for Ruby V3
TargetConfiguration

Settings for a target-based scaling policy (see ScalingPolicy (p. 443). 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.

- DescribeFleetCapacity (p. 132)
- UpdateFleetCapacity (p. 318)
- DescribeEC2InstanceLimits (p. 123)
- Manage scaling policies:
  - PutScalingPolicy (p. 239) (auto-scaling)
  - DescribeScalingPolicies (p. 193) (auto-scaling)
  - DeleteScalingPolicy (p. 104) (auto-scaling)
- Manage fleet actions:
  - StartFleetActions (p. 271)
  - StopFleetActions (p. 289)

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
- AWS SDK for Ruby V3
TargetTrackingConfiguration

This data type is part of Amazon GameLift FleetIQ with game server groups, which is in preview release and is subject to change.

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 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
- 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.

- CreateVpcPeeringAuthorization (p. 77)
- DescribeVpcPeeringAuthorizations (p. 201)
- DeleteVpcPeeringAuthorization (p. 110)
- CreateVpcPeeringConnection (p. 82)
- DescribeVpcPeeringConnections (p. 203)
- DeleteVpcPeeringConnection (p. 112)

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
- Required: No

**PeerVpcAwsAccountId**

- Type: String
- 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 where your fleet is deployed. Look up a VPC ID using the VPC Dashboard.
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
- 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.

- CreateVpcPeeringAuthorization (p. 77)
- DescribeVpcPeeringAuthorizations (p. 201)
- DeleteVpcPeeringAuthorization (p. 110)
- CreateVpcPeeringConnection (p. 82)
- DescribeVpcPeeringConnections (p. 203)
- DeleteVpcPeeringConnection (p. 112)

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 a 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 where your fleet is deployed. Look up a VPC ID using the VPC Dashboard in the AWS Management Console. Learn more about VPC peering in VPC Peering with Amazon GameLift Fleets.

Type: String


Required: No

**Status**

The status information about the connection. Status indicates if a connection is pending, successful, or failed.

Type: `VpcPeeringConnectionStatus` (p. 457) 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 with `DeleteVpcPeeringConnection` (p. 112).

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
- AWS SDK for Ruby V3
VpcPeeringConnectionStatus

Represents status information for a VPC peering connection. Status is associated with a VpcPeeringConnection (p. 455) object. Status codes and messages are provided from EC2 (see VpcPeeringConnectionStateReason). Connection status information is also communicated as a fleet Event (p. 373).

Contents

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

Code

Code indicating the status of a VPC peering connection.

Type: String


Required: No

Message

Additional messaging associated with the connection status.

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
- 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 Signature Version 4 Signing Process in the Amazon Web Services General Reference.

**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 Task 2: Create a String to Sign for Signature Version 4 in the Amazon Web Services General Reference.

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 Handling Dates in Signature Version 4 in the Amazon Web Services General Reference.

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 Security Token Service, go to AWS Services That Work with IAM in the IAM User Guide.

Condition: If you're using temporary security credentials from the AWS Security Token Service, 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 Task 1: Create a Canonical Request For Signature Version 4 in the Amazon Web Services General Reference.

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

**InvalidParameterCombination**
Parameters that must not be used together were used together.
HTTP Status Code: 400

**InvalidParameterValue**
An invalid or out-of-range value was supplied for the input parameter.
HTTP Status Code: 400

**InvalidQueryParameter**
The AWS query string is malformed or does not adhere to AWS standards.
HTTP Status Code: 400

**MalformedQueryString**
The query string contains a syntax error.
HTTP Status Code: 404

**MissingAction**
The request is missing an action or a required parameter.
HTTP Status Code: 400
**MissingAuthenticationToken**

The request must contain either a valid (registered) AWS access key ID or X.509 certificate.

HTTP Status Code: 403

**MissingParameter**

A required parameter for the specified action is not supplied.

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