Amazon Route 53 Application Recovery Controller

Zonal Shift API Reference Guide

API Version 2022-10-30

aws

Amazon Route 53 Application Recovery Controller: Zonal Shift API Reference Guide

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Welcome

Welcome to the Zonal Shift API Reference Guide for Amazon Route 53 Application Recovery Controller (Route 53 ARC).

Starting a zonal shift moves traffic for a load balancer resource away from an Availability Zone to help your application recover quickly, for example, from a developer's bad code deployment or from an AWS infrastructure failure in a single Availability Zone. A quick recovery reduces the impact and time lost from an issue in one zone.

For more information about using zonal shift, see the Amazon Route 53 Application Recovery Controller Developer Guide.

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Actions

The following actions are supported:

- [CancelZonalShift (p. 3)](#)
- [GetManagedResource (p. 6)](#)
- [ListManagedResources (p. 9)](#)
- [ListZonalShifts (p. 11)](#)
- [StartZonalShift (p. 14)](#)
- [UpdateZonalShift (p. 19)](#)

CancelZonalShift

Cancel a zonal shift in Amazon Route 53 Application Recovery Controller that you've started for a resource in your AWS account in an AWS Region.

Request Syntax

```
DELETE /zonalshifts/zonalShiftId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

zonalShiftId (p. 3)

> The internally-generated identifier of a zonal shift.
>
> Length Constraints: Minimum length of 6. Maximum length of 36.
>
> Pattern: ^[A-Za-z0-9-]+$
>
> Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "awayFrom": "string",
    "comment": "string",
    "expiryTime": number,
    "resourceIdentifier": "string",
    "startTime": number,
    "status": "string",
    "zonalShiftId": "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.

awayFrom (p. 3)

> The Availability Zone that traffic is moved away from for a resource when you start a zonal shift. Until the zonal shift expires or you cancel it, traffic for the resource is instead moved to other Availability Zones in the AWS Region.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 20.

comment (p. 3)

A comment that you enter about the zonal shift. Only the latest comment is retained; no comment history is maintained. A new comment overwrites any existing comment string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

expiryTime (p. 3)

The expiry time (expiration time) for the zonal shift. A zonal shift is temporary and must be set to expire when you start the zonal shift. You can initially set a zonal shift to expire in a maximum of three days (72 hours). However, you can update a zonal shift to set a new expiration at any time.

When you start a zonal shift, you specify how long you want it to be active, which Route 53 ARC converts to an expiry time (expiration time). You can cancel a zonal shift when you're ready to restore traffic to the Availability Zone, or just wait for it to expire. Or you can update the zonal shift to specify another length of time to expire in.

Type: Timestamp

resourceIdentifier (p. 3)

The identifier for the resource to include in a zonal shift. The identifier is the Amazon Resource Name (ARN) for the resource.

At this time, you can only start a zonal shift for Network Load Balancers and Application Load Balancers with cross-zone load balancing turned off.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 1024.

startTime (p. 3)

The time (UTC) when the zonal shift starts.

Type: Timestamp

status (p. 3)

A status for a zonal shift.

The Status for a zonal shift can have one of the following values:
- **ACTIVE:** The zonal shift has been started and active.
- **EXPIRED:** The zonal shift has expired (the expiry time was exceeded).
- **CANCELED:** The zonal shift was canceled.

Type: String

Valid Values: ACTIVE | EXPIRED | CANCELED

zonalShiftId (p. 3)

The identifier of a zonal shift.

Type: String

Length Constraints: Minimum length of 6. Maximum length of 36.

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

Errors

For information about the errors that are common to all actions, see Common Errors (p. 31).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

ConflictException

The request could not be processed because of conflict in the current state of the resource.

HTTP Status Code: 409

InternalServerException

There was an internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The input requested a resource that was not found.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

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

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

GetManagedResource

Get information about a resource that's been registered for zonal shifts with Amazon Route 53 Application Recovery Controller in this AWS Region. Resources that are registered for zonal shifts are managed resources in Route 53 ARC.

At this time, you can only start a zonal shift for Network Load Balancers and Application Load Balancers with cross-zone load balancing turned off.

Request Syntax

```
GET /managedresources/resourceIdentifier HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

resourceIdentifier (p. 6)

The identifier for the resource to include in a zonal shift. The identifier is the Amazon Resource Name (ARN) for the resource.

At this time, you can only start a zonal shift for Network Load Balancers and Application Load Balancers with cross-zone load balancing turned off.

Length Constraints: Minimum length of 8. Maximum length of 1024.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "appliedWeights": {
      "string" : number
   },
   "arn": "string",
   "name": "string",
   "zonalShifts": [
      {
         "appliedStatus": "string",
         "awayFrom": "string",
         "comment": "string",
         "expiryTime": number,
         "resourceIdentifier": "string",
         "startTime": number,
         "zonalShiftId": "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.

appliedWeights (p. 6)

A collection of key-value pairs that indicate whether resources are active in Availability Zones or not. The key name is the Availability Zone where the resource is deployed. The value is 1 or 0.

Type: String to float map

Key Length Constraints: Minimum length of 0. Maximum length of 20.

Valid Range: Minimum value of 0.0. Maximum value of 1.0.

arn (p. 6)

The Amazon Resource Name (ARN) for the resource.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 1024.

Pattern: `^arn:.*$`

name (p. 6)

The name of the resource.

Type: String

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

zonalShifts (p. 6)

The zonal shifts that are currently active for a resource.

Type: Array of ZonalShiftInResource (p. 25) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 31).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerException

There was an internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The input requested a resource that was not found.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

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

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

ListManagedResources

Lists all the resources in your AWS account in this AWS Region that are managed for zonal shifts in Amazon Route 53 Application Recovery Controller, and information about them. The information includes their Amazon Resource Names (ARNs), the Availability Zones the resources are deployed in, and the resource name.

Request Syntax

```
GET /managedresources?maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

maxResults (p. 9)

The number of objects that you want to return with this call.

Valid Range: Minimum value of 1. Maximum value of 100.

nextToken (p. 9)

Specifies that you want to receive the next page of results. Valid only if you received a `NextToken` response in the previous request. If you did, it indicates that more output is available. Set this parameter to the value provided by the previous call's `NextToken` response to request the next page of results.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "items": [
        {
            "arn": "string",
            "availabilityZones": [ "string" ],
            "name": "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.

items (p. 9)

    The items in the response list.

    Type: Array of ManagedResourceSummary (p. 24) objects

nextToken (p. 9)

    Specifies that you want to receive the next page of results. Valid only if you received a `NextToken` response in the previous request. If you did, it indicates that more output is available. Set this parameter to the value provided by the previous call's `NextToken` response to request the next page of results.

    Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 31).

AccessDeniedException

    You do not have sufficient access to perform this action.

    HTTP Status Code: 403

InternalServerException

    There was an internal server error.

    HTTP Status Code: 500

ThrottlingException

    The request was denied due to request throttling.

    HTTP Status Code: 429

ValidationException

    The input fails to satisfy the constraints specified by an AWS service.

    HTTP Status Code: 400

See Also

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

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

ListZonalShifts

Lists all the active zonal shifts in Amazon Route 53 Application Recovery Controller in your AWS account in this AWS Region.

Request Syntax

```
GET /zonalshifts?maxResults=maxResults&nextToken=nextToken&status=status HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

maxResults (p. 11)

>   The number of objects that you want to return with this call.
>
>   Valid Range: Minimum value of 1. Maximum value of 100.

nextToken (p. 11)

>   Specifies that you want to receive the next page of results. Valid only if you received a `NextToken` response in the previous request. If you did, it indicates that more output is available. Set this parameter to the value provided by the previous call's `NextToken` response to request the next page of results.

status (p. 11)

>   A status for a zonal shift.
>
>   The `Status` for a zonal shift can have one of the following values:
>   - **ACTIVE**: The zonal shift has been started and active.
>   - **EXPIRED**: The zonal shift has expired (the expiry time was exceeded).
>   - **CANCELED**: The zonal shift was canceled.
>
>   Valid Values: `ACTIVE | EXPIRED | CANCELED`

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
   "items": [
      {
         "awayFrom": "string",
         "comment": "string",
         "expiryTime": number,
         "resourceIdentifier": "string",
         "startTime": number,
         "status": "string",
```

```
            "zonalShiftId": "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.

items (p. 11)

The items in the response list.

Type: Array of ZonalShiftSummary (p. 27) objects

nextToken (p. 11)

Specifies that you want to receive the next page of results. Valid only if you received a `NextToken` response in the previous request. If you did, it indicates that more output is available. Set this parameter to the value provided by the previous call's `NextToken` response to request the next page of results.

Type: String

Errors

For information about the errors that are common to all actions, see Common Errors (p. 31).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

InternalServerException

There was an internal server error.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

StartZonalShift

You start a zonal shift to temporarily move load balancer traffic away from an Availability Zone in an AWS Region, to help your application recover immediately, for example, from a developer's bad code deployment or from an AWS infrastructure failure in a single Availability Zone. You can start a zonal shift in Route 53 ARC only for managed resources in your AWS account in an AWS Region. Resources are automatically registered with Route 53 ARC by AWS services.

At this time, you can only start a zonal shift for Network Load Balancers and Application Load Balancers with cross-zone load balancing turned off.

When you start a zonal shift, traffic for the resource is no longer routed to the Availability Zone. The zonal shift is created immediately in Route 53 ARC. However, it can take a short time, typically up to a few minutes, for existing, in-progress connections in the Availability Zone to complete.

For more information, see Zonal shift in the Amazon Route 53 Application Recovery Controller Developer Guide.

Request Syntax

```
POST /zonalshifts HTTP/1.1
Content-type: application/json

{
    "awayFrom": "string",
    "comment": "string",
    "expiresIn": "string",
    "resourceIdentifier": "string"
}
```

URI Request Parameters

The request does not use any URI parameters.

Request Body

The request accepts the following data in JSON format.

awayFrom (p. 14)

> The Availability Zone that traffic is moved away from for a resource when you start a zonal shift. Until the zonal shift expires or you cancel it, traffic for the resource is instead moved to other Availability Zones in the AWS Region.
>
> Type: String
>
> Length Constraints: Minimum length of 0. Maximum length of 20.
>
> Required: Yes

comment (p. 14)

> A comment that you enter about the zonal shift. Only the latest comment is retained; no comment history is maintained. A new comment overwrites any existing comment string.
>
> Type: String
>
> Length Constraints: Minimum length of 0. Maximum length of 128.

Required: Yes

expiresIn (p. 14)

The length of time that you want a zonal shift to be active, which Route 53 ARC converts to an expiry time (expiration time). Zonal shifts are temporary. You can set a zonal shift to be active initially for up to three days (72 hours).

If you want to still keep traffic away from an Availability Zone, you can update the zonal shift and set a new expiration. You can also cancel a zonal shift, before it expires, for example, if you're ready to restore traffic to the Availability Zone.

To set a length of time for a zonal shift to be active, specify a whole number, and then one of the following, with no space:

- **A lowercase letter m:** To specify that the value is in minutes.
- **A lowercase letter h:** To specify that the value is in hours.

For example: 20h means the zonal shift expires in 20 hours. 120m means the zonal shift expires in 120 minutes (2 hours).

Type: String

Length Constraints: Minimum length of 2. Maximum length of 5.

Pattern: `^([1-9][0-9]*)(m|h)$`

Required: Yes

resourceIdentifier (p. 14)

The identifier for the resource to include in a zonal shift. The identifier is the Amazon Resource Name (ARN) for the resource.

At this time, you can only start a zonal shift for Network Load Balancers and Application Load Balancers with cross-zone load balancing turned off.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 1024.

Required: Yes

Response Syntax

```
HTTP/1.1 201
Content-type: application/json

{
    "awayFrom": "string",
    "comment": "string",
    "expiryTime": number,
    "resourceIdentifier": "string",
    "startTime": number,
    "status": "string",
    "zonalShiftId": "string"
}
```

Response Elements

If the action is successful, the service sends back an HTTP 201 response.

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

awayFrom (p. 15)

> The Availability Zone that traffic is moved away from for a resource when you start a zonal shift. Until the zonal shift expires or you cancel it, traffic for the resource is instead moved to other Availability Zones in the AWS Region.
>
> Type: String
>
> Length Constraints: Minimum length of 0. Maximum length of 20.

comment (p. 15)

> A comment that you enter about the zonal shift. Only the latest comment is retained; no comment history is maintained. A new comment overwrites any existing comment string.
>
> Type: String
>
> Length Constraints: Minimum length of 0. Maximum length of 128.

expiryTime (p. 15)

> The expiry time (expiration time) for the zonal shift. A zonal shift is temporary and must be set to expire when you start the zonal shift. You can initially set a zonal shift to expire in a maximum of three days (72 hours). However, you can update a zonal shift to set a new expiration at any time.
>
> When you start a zonal shift, you specify how long you want it to be active, which Route 53 ARC converts to an expiry time (expiration time). You can cancel a zonal shift when you're ready to restore traffic to the Availability Zone, or just wait for it to expire. Or you can update the zonal shift to specify another length of time to expire in.
>
> Type: Timestamp

resourceIdentifier (p. 15)

> The identifier for the resource to include in a zonal shift. The identifier is the Amazon Resource Name (ARN) for the resource.
>
> At this time, you can only start a zonal shift for Network Load Balancers and Application Load Balancers with cross-zone load balancing turned off.
>
> Type: String
>
> Length Constraints: Minimum length of 8. Maximum length of 1024.

startTime (p. 15)

> The time (UTC) when the zonal shift starts.
>
> Type: Timestamp

status (p. 15)

> A status for a zonal shift.
>
> The Status for a zonal shift can have one of the following values:
> - **ACTIVE:** The zonal shift has been started and active.
> - **EXPIRED:** The zonal shift has expired (the expiry time was exceeded).
> - **CANCELED:** The zonal shift was canceled.
>
> Type: String
>
> Valid Values: ACTIVE | EXPIRED | CANCELED

zonalShiftId (p. 15)

The identifier of a zonal shift.

Type: String

Length Constraints: Minimum length of 6. Maximum length of 36.

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

Errors

For information about the errors that are common to all actions, see Common Errors (p. 31).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

ConflictException

The request could not be processed because of conflict in the current state of the resource.

HTTP Status Code: 409

InternalServerException

There was an internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The input requested a resource that was not found.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

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

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

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateZonalShift

Update an active zonal shift in Amazon Route 53 Application Recovery Controller in your AWS account. You can update a zonal shift to set a new expiration, or edit or replace the comment for the zonal shift.

Request Syntax

```
PATCH /zonalshifts/zonalShiftId HTTP/1.1
Content-type: application/json

{
    "comment": "string",
    "expiresIn": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

zonalShiftId (p. 19)

> The identifier of a zonal shift.
>
> Length Constraints: Minimum length of 6. Maximum length of 36.
>
> Pattern: ^[A-Za-z0-9-]+$
>
> Required: Yes

Request Body

The request accepts the following data in JSON format.

comment (p. 19)

> A comment that you enter about the zonal shift. Only the latest comment is retained; no comment history is maintained. A new comment overwrites any existing comment string.
>
> Type: String
>
> Length Constraints: Minimum length of 0. Maximum length of 128.
>
> Required: No

expiresIn (p. 19)

> The length of time that you want a zonal shift to be active, which Route 53 ARC converts to an expiry time (expiration time). Zonal shifts are temporary. You can set a zonal shift to be active initially for up to three days (72 hours).
>
> If you want to still keep traffic away from an Availability Zone, you can update the zonal shift and set a new expiration. You can also cancel a zonal shift, before it expires, for example, if you're ready to restore traffic to the Availability Zone.
>
> To set a length of time for a zonal shift to be active, specify a whole number, and then one of the following, with no space:

- **A lowercase letter m:** To specify that the value is in minutes.
- **A lowercase letter h:** To specify that the value is in hours.

For example: 20h means the zonal shift expires in 20 hours. 120m means the zonal shift expires in 120 minutes (2 hours).

Type: String

Length Constraints: Minimum length of 2. Maximum length of 5.

Pattern: `^([1-9][0-9]*)(m|h)$`

Required: No

Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
    "awayFrom": "string",
    "comment": "string",
    "expiryTime": number,
    "resourceIdentifier": "string",
    "startTime": number,
    "status": "string",
    "zonalShiftId": "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.

awayFrom (p. 20)

The Availability Zone that traffic is moved away from for a resource when you start a zonal shift. Until the zonal shift expires or you cancel it, traffic for the resource is instead moved to other Availability Zones in the AWS Region.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 20.

comment (p. 20)

A comment that you enter about the zonal shift. Only the latest comment is retained; no comment history is maintained. A new comment overwrites any existing comment string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

expiryTime (p. 20)

The expiry time (expiration time) for the zonal shift. A zonal shift is temporary and must be set to expire when you start the zonal shift. You can initially set a zonal shift to expire in a maximum of three days (72 hours). However, you can update a zonal shift to set a new expiration at any time.

When you start a zonal shift, you specify how long you want it to be active, which Route 53 ARC converts to an expiry time (expiration time). You can cancel a zonal shift when you're ready to restore traffic to the Availability Zone, or just wait for it to expire. Or you can update the zonal shift to specify another length of time to expire in.

Type: Timestamp

resourceIdentifier (p. 20)

The identifier for the resource to include in a zonal shift. The identifier is the Amazon Resource Name (ARN) for the resource.

At this time, you can only start a zonal shift for Network Load Balancers and Application Load Balancers with cross-zone load balancing turned off.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 1024.

startTime (p. 20)

The time (UTC) when the zonal shift starts.

Type: Timestamp

status (p. 20)

A status for a zonal shift.

The `Status` for a zonal shift can have one of the following values:
- **ACTIVE:** The zonal shift has been started and active.
- **EXPIRED:** The zonal shift has expired (the expiry time was exceeded).
- **CANCELED:** The zonal shift was canceled.

Type: String

Valid Values: `ACTIVE | EXPIRED | CANCELED`

zonalShiftId (p. 20)

The identifier of a zonal shift.

Type: String

Length Constraints: Minimum length of 6. Maximum length of 36.

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

Errors

For information about the errors that are common to all actions, see Common Errors (p. 31).

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

ConflictException

The request could not be processed because of conflict in the current state of the resource.

HTTP Status Code: 409

InternalServerException

There was an internal server error.

HTTP Status Code: 500

ResourceNotFoundException

The input requested a resource that was not found.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400

See Also

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

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

Data Types

The Zonal Shift 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:

- [ManagedResourceSummary (p. 24)](#)
- [ZonalShiftInResource (p. 25)](#)
- [ZonalShiftSummary (p. 27)](#)

ManagedResourceSummary

A complex structure for a managed resource in an AWS account.

A managed resource is a Network Load Balancer or Application Load Balancer that has been registered with Route 53 ARC by Elastic Load Balancing. You can start a zonal shift in Route 53 ARC for a managed resource to temporarily move traffic for the resource away from an Availability Zone in an AWS Region.

> **Note**
> At this time, you can only start a zonal shift for Network Load Balancers and Application Load Balancers with cross-zone load balancing turned off.

Contents

availabilityZones

The Availability Zones that a resource is deployed in.

Type: Array of strings

Length Constraints: Minimum length of 0. Maximum length of 20.

Required: Yes

arn

The Amazon Resource Name (ARN) for the managed resource.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 1024.

Pattern: `^arn:.*$`

Required: No

name

The name of the managed resource.

Type: String

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

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ZonalShiftInResource

A complex structure that lists the zonal shifts for a managed resource and their statuses for the resource.

Contents

appliedStatus

An `appliedStatus` for a zonal shift for a resource can have one of two values: APPLIED or NOT_APPLIED.

Type: String

Valid Values: `APPLIED | NOT_APPLIED`

Required: Yes

awayFrom

The Availability Zone that traffic is moved away from for a resource when you start a zonal shift. Until the zonal shift expires or you cancel it, traffic for the resource is instead moved to other Availability Zones in the AWS Region.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 20.

Required: Yes

comment

A comment that you enter about the zonal shift. Only the latest comment is retained; no comment history is maintained. That is, a new comment overwrites any existing comment string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Required: Yes

expiryTime

The expiry time (expiration time) for the zonal shift. A zonal shift is temporary and must be set to expire when you start the zonal shift. You can initially set a zonal shift to expire in a maximum of three days (72 hours). However, you can update a zonal shift to set a new expiration at any time.

When you start a zonal shift, you specify how long you want it to be active, which Route 53 ARC converts to an expiry time (expiration time). You can cancel a zonal shift when you're ready to restore traffic to the Availability Zone, or just wait for it to expire. Or you can update the zonal shift to specify another length of time to expire in.

Type: Timestamp

Required: Yes

resourceIdentifier

The identifier for the resource to include in a zonal shift. The identifier is the Amazon Resource Name (ARN) for the resource.

At this time, you can only start a zonal shift for Network Load Balancers and Application Load Balancers with cross-zone load balancing turned off.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 1024.

Required: Yes

startTime

The time (UTC) when the zonal shift starts.

Type: Timestamp

Required: Yes

zonalShiftId

The identifier of a zonal shift.

Type: String

Length Constraints: Minimum length of 6. Maximum length of 36.

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

Required: Yes

See Also

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

- AWS SDK for C++
- AWS SDK for Go
- AWS SDK for Java V2
- AWS SDK for Ruby V3

ZonalShiftSummary

You start a zonal shift to temporarily move load balancer traffic away from an Availability Zone in an AWS Region. A zonal shift helps your application recover immediately, for example, from a developer's bad code deployment or from an AWS infrastructure failure in a single Availability Zone. You can start a zonal shift in Route 53 ARC only for managed resources in your AWS account in an AWS Region. Supported AWS resources are automatically registered with Route 53 ARC.

Zonal shifts are temporary. A zonal shift can be active for up to three days (72 hours).

When you start a zonal shift, you specify how long you want it to be active, which Amazon Route 53 Application Recovery Controller converts to an expiry time (expiration time). You can cancel a zonal shift, for example, if you're ready to restore traffic to the Availability Zone. Or you update a zonal shift to set a new expiration at any time.

Contents

awayFrom

The Availability Zone that traffic is moved away from for a resource when you start a zonal shift. Until the zonal shift expires or you cancel it, traffic for the resource is instead moved to other Availability Zones in the AWS Region.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 20.

Required: Yes

comment

A comment that you enter about the zonal shift. Only the latest comment is retained; no comment history is maintained. That is, a new comment overwrites any existing comment string.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Required: Yes

expiryTime

The expiry time (expiration time) for the zonal shift. A zonal shift is temporary and must be set to expire when you start the zonal shift. You can initially set a zonal shift to expire in a maximum of three days (72 hours). However, you can update a zonal shift to set a new expiration at any time.

When you start a zonal shift, you specify how long you want it to be active, which Route 53 ARC converts to an expiry time (expiration time). You can cancel a zonal shift when you're ready to restore traffic to the Availability Zone, or just wait for it to expire. Or you can update the zonal shift to specify another length of time to expire in.

Type: Timestamp

Required: Yes

resourceIdentifier

The identifier for the resource to include in a zonal shift. The identifier is the Amazon Resource Name (ARN) for the resource.

At this time, you can only start a zonal shift for Network Load Balancers and Application Load Balancers with cross-zone load balancing turned off.

Type: String

Length Constraints: Minimum length of 8. Maximum length of 1024.

Required: Yes

startTime

The time (UTC) when the zonal shift starts.

Type: Timestamp

Required: Yes

status

A status for a zonal shift.

The `Status` for a zonal shift can have one of the following values:
- **ACTIVE:** The zonal shift has been started and active.
- **EXPIRED:** The zonal shift has expired (the expiry time was exceeded).
- **CANCELED:** The zonal shift was canceled.

Type: String

Valid Values: `ACTIVE | EXPIRED | CANCELED`

Required: Yes

zonalShiftId

The identifier of a zonal shift.

Type: String

Length Constraints: Minimum length of 6. Maximum length of 36.

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

Required: Yes

See Also

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

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see [Signing AWS API requests](#) in the *IAM User Guide*.

Action

The action to be performed.

Type: string

Required: Yes

Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: *access_key*/*YYYYMMDD*/*region*/*service*/aws4_request.

For more information, see [Create a signed AWS API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-Date

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: `20120325T120000Z`.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see [Elements of an AWS API request signature](#) in the *IAM User Guide*.

Type: string

Required: Conditional

X-Amz-Security-Token

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS STS, see AWS services that work with IAM in the *IAM User Guide*.

Condition: If you're using temporary security credentials from AWS STS, you must include the security token.

Type: string

Required: Conditional

X-Amz-Signature

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-SignedHeaders

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see Create a signed AWS API request in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

Common Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 403

ExpiredTokenException

The security token included in the request is expired

HTTP Status Code: 403

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 403

InternalFailure

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

MalformedHttpRequestException

Problems with the request at the HTTP level, e.g. we can't decompress the body according to the decompression algorithm specified by the content-encoding.

HTTP Status Code: 400

NotAuthorized

You do not have permission to perform this action.

HTTP Status Code: 401

OptInRequired

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

RequestAbortedException

Convenient exception that can be used when a request is aborted before a reply is sent back (e.g. client closed connection).

HTTP Status Code: 400

RequestEntityTooLargeException

Problems with the request at the HTTP level. The request entity is too large.

HTTP Status Code: 413

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

RequestTimeoutException

Problems with the request at the HTTP level. Reading the Request timed out.

HTTP Status Code: 408

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

UnrecognizedClientException

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

UnknownOperationException

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 404

ValidationError

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400