Amazon Route 53 Application Recovery Controller

Recovery Control Configuration

API Reference Guide

Amazon Route 53 Application Recovery Controller: Recovery Control Configuration API Reference Guide

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What is recovery control configuration in Amazon Route 53 Application Recovery Controller?

Welcome to the Recovery Control Configuration API Reference Guide for Amazon Route 53 Application Recovery Controller.

With recovery control configuration in Application Recovery Controller, you can use extremely reliable routing control to enable you to recover applications by rerouting traffic, for example, across Availability Zones or Regions. Routing controls are simple on/off switches hosted on an Application Recovery Controller cluster. You integrate your routing controls with Amazon Route 53 health checks that are configured with DNS records. Then, to implement failover, you turn one routing control on and another one off to reroute traffic from one Availability Zone or AWS Region to another.

When you create routing controls, you add them to a control panel. All routing controls are grouped on control panels. You can use the default control panel that is created for each cluster, or create your own custom control panels. You must create a cluster before you can create a routing control or control panel.

After you create routing controls, you can create safety rules to put safeguards in place when you reroute traffic. Safety rules can help you avoid unintentional consequences, like turning two routing controls off at once and stopping all traffic flow.

> **Important**
> Application Recovery Controller is a global service that supports endpoints in multiple AWS Regions but you must specify the US West (Oregon) Region when you work with readiness and recovery control configuration resources, for example, to create readiness checks or routing controls. In addition, you must specify regional endpoints when you work with API cluster operations to update routing control states to reroute traffic for failover.

For more information about Application Recovery Controller, see the following:

- Learn about the components in recovery control configuration, including clusters, routing controls, and control panels. For more information, see Recovery control components in the Amazon Route 53 Application Recovery Controller Developer Guide.
- You can set up readiness checks with Application Recovery Controller to ensure that your applications are scaled to handle failover traffic and configured so you can easily route around failures. For more information about the related API actions, see Recovery Readiness API Reference Guide for Amazon Route 53 Application Recovery Controller.
- You can work with routing control states to reroute traffic for fail over. For more information about the related API actions, see Routing Control API Reference Guide for Amazon Route 53 Application Recovery Controller.
- For more information about creating resilient applications and preparing for recovery readiness with Application Recovery Controller, see the Amazon Route 53 Application Recovery Controller Developer Guide.

Resources

The Amazon Route 53 Application Recovery Controller REST API includes the following resources.

Topics

- CreateControlPanel, UpdateControlPanel (p. 2)
- CreateRoutingControl, UpdateRoutingControl (p. 11)
- CreateSafetyRule, UpdateSafetyRule (p. 19)
- DescribeCluster, DeleteCluster (p. 33)
- DescribeControlPanel, DeleteControlPanel (p. 40)
- DescribeRoutingControl, DeleteRoutingControl (p. 47)
- DescribeSafetyRule, DeleteSafetyRule (p. 53)
- ListAssociatedRoute53HealthChecks (p. 62)
- ListClusters, CreateCluster (p. 65)
- ListControlPanels (p. 74)
- ListRoutingControls (p. 79)
- ListSafetyRules (p. 84)
- ListTagsForResources, TagResource, UntagResource (p. 93)

CreateControlPanel, UpdateControlPanel

URI

`/controlpanel`

HTTP methods

POST

Operation ID: `CreateControlPanel`

Creates a new control panel. A control panel represents a group of routing controls that can be changed together in a single transaction. You can use a control panel to centrally view the operational status of applications across your organization, and trigger multi-app failovers in a single transaction, for example, to fail over an Availability Zone or AWS Region.

Responses

Status code	Response model	Description
`200`	`CreateControlPanelResponse (p. 5)`	200 response - Success.
`400`	`ValidationException (p. 5)`	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.

Status code	Response model	Description
402	ServiceQuotaExceededException (p. 5)	402 response
403	AccessDeniedException (p. 5)	403 response - AccessDeniedException. You do not have sufficient access to perform this action.
404	ResourceNotFoundException (p. 5)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
409	ConflictException (p. 5)	409 response - ConflictException. You might be using a predefined variable.
429	ThrottlingException (p. 5)	429 response - LimitExceededException or TooManyRequestsException.
500	InternalServerException (p. 5)	500 response - InternalServiceError. Temporary service error. Retry the request.

PUT

Operation ID: `UpdateControlPanel`

Updates a control panel. The only update you can make to a control panel is to change the name of the control panel.

Responses

Status code	Response model	Description
200	UpdateControlPanelResponse (p. 5)	200 response - Success.
400	ValidationException (p. 5)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
403	AccessDeniedException (p. 5)	403 response - AccessDeniedException. You do not have sufficient access to perform this action.
404	ResourceNotFoundException (p. 5)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
409	ConflictException (p. 5)	409 response - ConflictException. You might be using a predefined variable.

Status code	Response model	Description
429	ThrottlingException (p. 5)	429 response - LimitExceededException or TooManyRequestsException.
500	InternalServerException (p. 5)	500 response - InternalServiceError. Temporary service error. Retry the request.

OPTIONS

Responses

Status code	Response model	Description
200	None	200 response - Success.

Schemas

Request bodies

POST schema

```
{
  "ClusterArn": "string",
  "ClientToken": "string",
  "ControlPanelName": "string",
  "Tags": [
    {
      "Value": "string",
      "Key": "string"
    }
  ]
}
```

PUT schema

```
{
  "ControlPanelArn": "string",
  "ControlPanelName": "string"
}
```

Response bodies

CreateControlPanelResponse schema

```
{
  "ControlPanel": {
    "ClusterArn": "string",
    "Status": enum,
    "ControlPanelArn": "string",
    "DefaultControlPanel": boolean,
    "RoutingControlCount": integer,
```

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

UpdateControlPanelResponse schema

```
{
  "ControlPanel": {
    "ClusterArn": "string",
    "Status": enum,
    "ControlPanelArn": "string",
    "DefaultControlPanel": boolean,
    "RoutingControlCount": integer,
    "Name": "string"
  }
}
```

ValidationException schema

```
{
  "message": "string"
}
```

ServiceQuotaExceededException schema

```
{
  "message": "string"
}
```

AccessDeniedException schema

```
{
  "message": "string"
}
```

ResourceNotFoundException schema

```
{
  "message": "string"
}
```

ConflictException schema

```
{
  "message": "string"
}
```

ThrottlingException schema

```
{
  "message": "string"
}
```

InternalServerException schema

```
{
  "message": "string"
}
```

Properties

AccessDeniedException

403 response - You do not have sufficient access to perform this action.

message

Type: string
Required: True

ConflictException

409 response - ConflictException. You might be using a predefined variable.

message

Type: string
Required: True

ControlPanel

A control panel represents a group of routing controls that can be changed together in a single transaction.

ClusterArn

The Amazon Resource Name (ARN) of the cluster that includes the control panel.

Type: string
Required: False

Status

The deployment status of control panel. Status can be one of the following: PENDING, DEPLOYED, PENDING_DELETION.

Type: Status (p. 8)
Required: False

ControlPanelArn

The Amazon Resource Name (ARN) of the control panel.

Type: string
Required: False

DefaultControlPanel

A flag that Amazon Route 53 Application Recovery Controller sets to true to designate the default control panel for a cluster. When you create a cluster, Amazon Route 53 Application Recovery Controller creates a control panel, and sets this flag for that control panel. If you create a control panel yourself, this flag is set to false.

Type: boolean
Required: False

RoutingControlCount

The number of routing controls in the control panel.

Type: integer
Required: False
Format: int32

Name

The name of the control panel. You can use any non-white space character in the name.

Type: string
Required: False
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

CreateControlPanelRequest

A request to create a control panel.

ClusterArn

The Amazon Resource Name (ARN) of the cluster for the control panel.

Type: string
Required: True

ClientToken

A unique, case-sensitive string of up to 64 ASCII characters. To make an idempotent API request with an action, specify a client token in the request.

Type: string
Required: False
MaxLength: 64

ControlPanelName

The name of the control panel.

Type: string
Required: True
Pattern: `^\S+$`
MinLength: 1

MaxLength: 64

Tags

The tags associated with the control panel.

Type: Array of type Tag (p. 9)
Required: False

CreateControlPanelResponse

The result of a successful `CreateControlPanel` request.

ControlPanel

Information about a control panel.

Type: ControlPanel (p. 6)
Required: True

InternalServerException

500 response - InternalServiceError. Temporary service error. Retry the request.

message

Type: string
Required: True

ResourceNotFoundException

404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

message

Type: string
Required: True

ServiceQuotaExceededException

402 response - You attempted to create more resources than the service allows based on service quotas.

message

Type: string
Required: True

Status

The deployment status of a resource. Status can be one of the following:

PENDING: Amazon Route 53 Application Recovery Controller is creating the resource.

DEPLOYED: The resource is deployed and ready to use.

PENDING_DELETION: Amazon Route 53 Application Recovery Controller is deleting the resource.

```
PENDING
DEPLOYED
PENDING_DELETION
```

Tag

A tag that you add to a resource.

Value

The value for a tag.

Type: string
Required: True
MaxLength: 256

Key

The key for a tag.

Type: string
Required: True
MinLength: 1
MaxLength: 128

ThrottlingException

429 response - LimitExceededException or TooManyRequestsException.

message

Type: string
Required: True

UpdateControlPanelRequest

Updates an existing control panel.

ControlPanelArn

The Amazon Resource Name (ARN) of the control panel.

Type: string
Required: True

ControlPanelName

The name of the control panel.

Type: string
Required: True
Pattern: `^\S+$`
MinLength: 1

MaxLength: 64

UpdateControlPanelResponse

The result of a successful `UpdateControlPanel` request.

ControlPanel

The control panel to update.

Type: ControlPanel (p. 6)
Required: True

ValidationException

400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you might have used parameters together incorrectly.

message

Type: string
Required: True

See also

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

CreateControlPanel

- 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

UpdateControlPanel

- 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

CreateRoutingControl, UpdateRoutingControl

URI

`/routingcontrol`

HTTP methods

POST

Operation ID: `CreateRoutingControl`

Creates a new routing control.

A routing control has one of two states: ON and OFF. You can map the routing control state to the state of an Amazon Route 53 health check, which can be used to control traffic routing.

Note that a routing control name must be unique within a control panel.

To get or update the routing control state, see the Recovery Cluster (data plane) API actions for Amazon Route 53 Application Recovery Controller.

Responses

Status code	Response model	Description
200	CreateRoutingControlResponse (p. 10)	200 response - Success.
400	ValidationException (p. 13)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
402	ServiceQuotaExceededException (p. 12)	402 response
403	AccessDeniedException (p. 10)	403 response - AccessDeniedException. You do not have sufficient access to perform this action.
404	ResourceNotFoundException (p. 12)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
409	ConflictException (p. 14)	409 response - ConflictException. You might be using a predefined variable.
429	ThrottlingException (p. 14)	429 response - LimitExceededException or TooManyRequestsException.

Status code	Response model	Description
500	InternalServerException (p. 14)	500 response - InternalServiceError. Temporary service error. Retry the request.

PUT

Operation ID: `UpdateRoutingControl`

Updates a routing control. You can only update the name of the routing control. The name must be unique within a control panel. To get or update the routing control state, see the Recovery Cluster (data plane) API actions for Amazon Route 53 Application Recovery Controller.

Responses

Status code	Response model	Description
200	UpdateRoutingControlResponse (p. 100)	200 response - Success.
400	ValidationException (p. 13)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
403	AccessDeniedException (p. 12)	403 response - AccessDeniedException. You do not have sufficient access to perform this action.
404	ResourceNotFoundException (p. 13)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
409	ConflictException (p. 14)	409 response - ConflictException. You might be using a predefined variable.
429	ThrottlingException (p. 14)	429 response - LimitExceededException or TooManyRequestsException.
500	InternalServerException (p. 14)	500 response - InternalServiceError. Temporary service error. Retry the request.

OPTIONS

Responses

Status code	Response model	Description
200	None	200 response - Success.

Schemas

Request bodies

POST schema

```
{
  "ClusterArn": "string",
  "RoutingControlName": "string",
  "ControlPanelArn": "string",
  "ClientToken": "string"
}
```

PUT schema

```
{
  "RoutingControlName": "string",
  "RoutingControlArn": "string"
}
```

Response bodies

CreateRoutingControlResponse schema

```
{
  "RoutingControl": {
    "Status": enum,
    "RoutingControlArn": "string",
    "ControlPanelArn": "string",
    "Name": "string"
  }
}
```

UpdateRoutingControlResponse schema

```
{
  "RoutingControl": {
    "Status": enum,
    "RoutingControlArn": "string",
    "ControlPanelArn": "string",
    "Name": "string"
  }
}
```

ValidationException schema

```
{
  "message": "string"
}
```

ServiceQuotaExceededException schema

```
{
```

```
  "message": "string"
}
```

AccessDeniedException schema

```
{
  "message": "string"
}
```

ResourceNotFoundException schema

```
{
  "message": "string"
}
```

ConflictException schema

```
{
  "message": "string"
}
```

ThrottlingException schema

```
{
  "message": "string"
}
```

InternalServerException schema

```
{
  "message": "string"
}
```

Properties

AccessDeniedException

403 response - You do not have sufficient access to perform this action.

message

Type: string
Required: True

ConflictException

409 response - ConflictException. You might be using a predefined variable.

message

Type: string
Required: True

CreateRoutingControlRequest

A request to create a routing control. If you don't specify `ControlPanelArn`, Amazon Route 53 Application Recovery Controller creates the routing control in `DefaultControlPanel`.

ClusterArn

The Amazon Resource Name (ARN) of the cluster that includes the routing control.

Type: string
Required: True

RoutingControlName

The name of the routing control.

Type: string
Required: True
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

ControlPanelArn

The Amazon Resource Name (ARN) of the control panel that includes the routing control.

Type: string
Required: False

ClientToken

A unique, case-sensitive string of up to 64 ASCII characters. To make an idempotent API request with an action, specify a client token in the request.

Type: string
Required: False
MaxLength: 64

CreateRoutingControlResponse

The result of a successful `CreateRoutingControl` request.

RoutingControl

The routing control that is created.

Type: RoutingControl (p. 16)
Required: False

InternalServerException

500 response - InternalServiceError. Temporary service error. Retry the request.

message

Type: string
Required: True

ResourceNotFoundException

404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

message

Type: string
Required: True

RoutingControl

A routing control has one of two states: ON and OFF. You can map the routing control state to the state of an Amazon Route 53 health check, which can be used to control traffic routing.

Status

The deployment status of a routing control. Status can be one of the following: PENDING, DEPLOYED, PENDING_DELETION.

Type: Status (p. 17)
Required: False

RoutingControlArn

The Amazon Resource Name (ARN) of the routing control.

Type: string
Required: False

ControlPanelArn

The Amazon Resource Name (ARN) of the control panel that includes the routing control.

Type: string
Required: False

Name

The name of the routing control.

Type: string
Required: False
Pattern: `^\S+$`
MinLength: 1

MaxLength: 64

ServiceQuotaExceededException

402 response - You attempted to create more resources than the service allows based on service quotas.

message

Type: string
Required: True

Status

The deployment status of a resource. Status can be one of the following:

PENDING: Amazon Route 53 Application Recovery Controller is creating the resource.

DEPLOYED: The resource is deployed and ready to use.

PENDING_DELETION: Amazon Route 53 Application Recovery Controller is deleting the resource.

```
PENDING
DEPLOYED
PENDING_DELETION
```

ThrottlingException

429 response - LimitExceededException or TooManyRequestsException.

message

Type: string
Required: True

UpdateRoutingControlRequest

A request to update a routing control.

RoutingControlName

The name of the routing control. The name must be unique within a control panel.

Type: string
Required: True
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

RoutingControlArn

The Amazon Resource Name (ARN) of the routing control.

Type: string
Required: True

UpdateRoutingControlResponse

The result of a successful `UpdateRoutingControl` request.

RoutingControl

The routing control that was updated.

Type: RoutingControl (p. 16)
Required: True

ValidationException

400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you might have used parameters together incorrectly.

message

Type: string
Required: True

See also

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

CreateRoutingControl

- 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

UpdateRoutingControl

- 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

CreateSafetyRule, UpdateSafetyRule

URI

`/safetyrule`

HTTP methods

POST

Operation ID: `CreateSafetyRule`

Creates a safety rule in a control panel. Safety rules let you add safeguards around changing routing control states, and for enabling and disabling routing controls, to help prevent unexpected outcomes.

There are two types of safety rules: assertion rules and gating rules.

Assertion rule: An assertion rule enforces that, when you change a routing control state, that a certain criteria is met. For example, the criteria might be that at least one routing control state is `On` after the transaction so that traffic continues to flow to at least one cell for the application. This ensures that you avoid a fail-open scenario.

Gating rule: A gating rule lets you configure a gating routing control as an overall "on/off" switch for a group of routing controls. Or, you can configure more complex gating scenarios, for example by configuring multiple gating routing controls.

Note that the name of a safety rule must be unique within a control panel.

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

Responses

Status code	Response model	Description
`200`	`CreateSafetyRuleResponse (p. 21)`	200 response - Success.
`400`	`ValidationException (p. 22)`	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
`500`	`InternalServerException (p. 18)`	500 response - InternalServiceError. Temporary service error. Retry the request.

PUT

Operation ID: `UpdateSafetyRule`

Update a safety rule (an assertion rule or gating rule). You can only update the name and the waiting period for a safety rule. To make other updates, delete the safety rule and create a new one.

Responses

Status code	Response model	Description
200	UpdateSafetyRuleResponse (p. 22)	200 response - Success.
400	ValidationException (p. 22)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
404	ResourceNotFoundException (p. 22)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
500	InternalServerException (p. 18)	500 response - InternalServiceError. Temporary service error. Retry the request.

OPTIONS

Responses

Status code	Response model	Description
200	None	200 response - Success.

Schemas

Request bodies

POST schema

```
{
  "AssertionRule": {
    "ControlPanelArn": "string",
    "AssertedControls": [
      "string"
    ],
    "RuleConfig": {
      "Type": enum,
      "Inverted": boolean,
      "Threshold": integer
    },
    "WaitPeriodMs": integer,
    "Name": "string"
  },
  "ClientToken": "string",
  "GatingRule": {
    "TargetControls": [
      "string"
    ],
    "ControlPanelArn": "string",
    "GatingControls": [
      "string"
```

```
    ],
    "RuleConfig": {
      "Type": enum,
      "Inverted": boolean,
      "Threshold": integer
    },
    "WaitPeriodMs": integer,
    "Name": "string"
  },
  "Tags": [
    {
      "Value": "string",
      "Key": "string"
    }
  ]
}
```

PUT schema

```
{
  "GatingRuleUpdate": {
    "SafetyRuleArn": "string",
    "WaitPeriodMs": integer,
    "Name": "string"
  },
  "AssertionRuleUpdate": {
    "SafetyRuleArn": "string",
    "WaitPeriodMs": integer,
    "Name": "string"
  }
}
```

Response bodies

CreateSafetyRuleResponse schema

```
{
  "AssertionRule": {
    "Status": enum,
    "ControlPanelArn": "string",
    "AssertedControls": [
      "string"
    ],
    "SafetyRuleArn": "string",
    "RuleConfig": {
      "Type": enum,
      "Inverted": boolean,
      "Threshold": integer
    },
    "WaitPeriodMs": integer,
    "Name": "string"
  },
  "GatingRule": {
    "Status": enum,
    "TargetControls": [
      "string"
    ],
    "ControlPanelArn": "string",
    "GatingControls": [
      "string"
    ],
    "SafetyRuleArn": "string",
```

```
    "RuleConfig": {
      "Type": enum,
      "Inverted": boolean,
      "Threshold": integer
    },
    "WaitPeriodMs": integer,
    "Name": "string"
  }
}
```

UpdateSafetyRuleResponse schema

```
{
  "AssertionRule": {
    "Status": enum,
    "ControlPanelArn": "string",
    "AssertedControls": [
      "string"
    ],
    "SafetyRuleArn": "string",
    "RuleConfig": {
      "Type": enum,
      "Inverted": boolean,
      "Threshold": integer
    },
    "WaitPeriodMs": integer,
    "Name": "string"
  },
  "GatingRule": {
    "Status": enum,
    "TargetControls": [
      "string"
    ],
    "ControlPanelArn": "string",
    "GatingControls": [
      "string"
    ],
    "SafetyRuleArn": "string",
    "RuleConfig": {
      "Type": enum,
      "Inverted": boolean,
      "Threshold": integer
    },
    "WaitPeriodMs": integer,
    "Name": "string"
  }
}
```

ValidationException schema

```
{
  "message": "string"
}
```

ResourceNotFoundException schema

```
{
  "message": "string"
}
```

InternalServerException schema

```
{
  "message": "string"
}
```

Properties

AssertionRule

An assertion rule enforces that, when you change a routing control state, that the criteria that you set in the rule configuration is met. Otherwise, the change to the routing control is not accepted. For example, the criteria might be that at least one routing control state is `On` after the transaction so that traffic continues to flow to at least one cell for the application. This ensures that you avoid a fail-open scenario.

Status

The deployment status of an assertion rule. Status can be one of the following: PENDING, DEPLOYED, PENDING_DELETION.

Type: Status (p. 31)
Required: True

ControlPanelArn

The Amazon Resource Name (ARN) of the control panel.

Type: string
Required: True

AssertedControls

The routing controls that are part of transactions that are evaluated to determine if a request to change a routing control state is allowed. For example, you might include three routing controls, one for each of three AWS Regions.

Type: Array of type string
Required: True

SafetyRuleArn

The Amazon Resource Name (ARN) of the assertion rule.

Type: string
Required: True

RuleConfig

The criteria that you set for specific assertion routing controls (AssertedControls) that designate how many routing control states must be `ON` as the result of a transaction. For example, if you have three assertion routing controls, you might specify `atleast` 2 for your rule configuration. This means that at least two assertion routing control states must be `ON`, so that at least two AWS Regions have traffic flowing to them.

Type: RuleConfig (p. 30)
Required: True

WaitPeriodMs

An evaluation period, in milliseconds (ms), during which any request against the target routing controls will fail. This helps prevent "flapping" of state. The wait period is 5000 ms by default, but you can choose a custom value.

Type: integer
Required: True
Format: int32

Name

Name of the assertion rule. You can use any non-white space character in the name.

Type: string
Required: True
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

AssertionRuleUpdate

An update to an assertion rule. You can update the name or the evaluation period (wait period). If you don't specify one of the items to update, the item is unchanged.

SafetyRuleArn

The Amazon Resource Name (ARN) of the assertion rule.

Type: string
Required: True

WaitPeriodMs

An evaluation period, in milliseconds (ms), during which any request against the target routing controls will fail. This helps prevent "flapping" of state. The wait period is 5000 ms by default, but you can choose a custom value.

Type: integer
Required: True
Format: int32

Name

The name of the assertion rule. You can use any non-white space character in the name. The name must be unique within a control panel.

Type: string
Required: True
Pattern: `^\S+$`
MinLength: 1

MaxLength: 64

CreateSafetyRuleRequest

Request to create a safety rule. You can create either an assertion rule or a gating rule with a `CreateSafetyRuleRequest` call.

AssertionRule

The assertion rule requested.

Type: NewAssertionRule (p. 28)
Required: False

ClientToken

A unique, case-sensitive string of up to 64 ASCII characters. To make an idempotent API request with an action, specify a client token in the request.

Type: string
Required: False
MaxLength: 64

GatingRule

The gating rule requested.

Type: NewGatingRule (p. 29)
Required: False

Tags

The tags associated with the safety rule.

Type: Array of type Tag (p. 31)
Required: False

CreateSafetyRuleResponse

The result of a successful `CreateSafetyRule` request.

AssertionRule

The assertion rule created.

Type: AssertionRule (p. 23)
Required: False

GatingRule

The gating rule created.

Type: GatingRule (p. 26)
Required: False

GatingRule

A gating rule verifies that a gating routing control or set of gating routing controls, evaluates as true, based on a rule configuration that you specify, which allows a set of routing control state changes to complete.

For example, if you specify one gating routing control and you set the `Type` in the rule configuration to `OR`, that indicates that you must set the gating routing control to `On` for the rule to evaluate as true; that is, for the gating control "switch" to be "On". When you do that, then you can update the routing control states for the target routing controls that you specify in the gating rule.

Status

The deployment status of a gating rule. Status can be one of the following: PENDING, DEPLOYED, PENDING_DELETION.

Type: Status (p. 31)
Required: True

TargetControls

An array of target routing control Amazon Resource Names (ARNs) for which the states can only be updated if the rule configuration that you specify evaluates to true for the gating routing control. As a simple example, if you have a single gating control, it acts as an overall "on/off" switch for a set of target routing controls. You can use this to manually override automated failover, for example.

Type: Array of type string
Required: True

ControlPanelArn

The Amazon Resource Name (ARN) of the control panel.

Type: string
Required: True

GatingControls

An array of gating routing control Amazon Resource Names (ARNs). For a simple "on/off" switch, specify the ARN for one routing control. The gating routing controls are evaluated by the rule configuration that you specify to determine if the target routing control states can be changed.

Type: Array of type string
Required: True

SafetyRuleArn

The Amazon Resource Name (ARN) of the gating rule.

Type: string
Required: True

RuleConfig

The criteria that you set for gating routing controls that designate how many of the routing control states must be `ON` to allow you to update target routing control states.

Type: RuleConfig (p. 30)
Required: True

WaitPeriodMs

An evaluation period, in milliseconds (ms), during which any request against the target routing controls will fail. This helps prevent "flapping" of state. The wait period is 5000 ms by default, but you can choose a custom value.

Type: integer
Required: True
Format: int32

Name

The name of the gating rule. You can use any non-white space character in the name.

Type: string
Required: True
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

GatingRuleUpdate

Update to a gating rule. You can update the name or the evaluation period (wait period). If you don't specify one of the items to update, the item is unchanged.

SafetyRuleArn

The Amazon Resource Name (ARN) of the gating rule.

Type: string
Required: True

WaitPeriodMs

An evaluation period, in milliseconds (ms), during which any request against the target routing controls will fail. This helps prevent "flapping" of state. The wait period is 5000 ms by default, but you can choose a custom value.

Type: integer
Required: True
Format: int32

Name

The name of the gating rule. You can use any non-white space character in the name. The name must be unique within a control panel.

Type: string
Required: True
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

InternalServerException

500 response - InternalServiceError. Temporary service error. Retry the request.

message

Type: string
Required: True

NewAssertionRule

A new assertion rule for a control panel.

ControlPanelArn

The Amazon Resource Name (ARN) for the control panel.

Type: string
Required: True

AssertedControls

The routing controls that are part of transactions that are evaluated to determine if a request to change a routing control state is allowed. For example, you might include three routing controls, one for each of three AWS Regions.

Type: Array of type string
Required: True

RuleConfig

The criteria that you set for specific assertion controls (routing controls) that designate how many control states must be `ON` as the result of a transaction. For example, if you have three assertion controls, you might specify `ATLEAST 2` for your rule configuration. This means that at least two assertion controls must be `ON`, so that at least two AWS Regions have traffic flowing to them.

Type: RuleConfig (p. 30)
Required: True

WaitPeriodMs

An evaluation period, in milliseconds (ms), during which any request against the target routing controls will fail. This helps prevent "flapping" of state. The wait period is 5000 ms by default, but you can choose a custom value.

Type: integer
Required: True
Format: int32

Name

The name of the assertion rule. You can use any non-white space character in the name. The name must be unique within a control panel.

Type: string

Required: True
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

NewGatingRule

A new gating rule for a control panel.

TargetControls

Routing controls that can only be set or unset if the specified `RuleConfig` evaluates to true for the specified `GatingControls`. For example, say you have three gating controls, one for each of three AWS Regions. Now you specify `ATLEAST 2` as your `RuleConfig`. With these settings, you can only change (set or unset) the routing controls that you have specified as `TargetControls` if that rule evaluates to true.

In other words, your ability to change the routing controls that you have specified as `TargetControls` is gated by the rule that you set for the routing controls in `GatingControls`.

Type: Array of type string
Required: True

ControlPanelArn

The Amazon Resource Name (ARN) of the control panel.

Type: string
Required: True

GatingControls

The gating controls for the new gating rule. That is, routing controls that are evaluated by the rule configuration that you specify.

Type: Array of type string
Required: True

RuleConfig

The criteria that you set for specific gating controls (routing controls) that designate how many control states must be `ON` to allow you to change (set or unset) the target control states.

Type: RuleConfig (p. 30)
Required: True

WaitPeriodMs

An evaluation period, in milliseconds (ms), during which any request against the target routing controls will fail. This helps prevent "flapping" of state. The wait period is 5000 ms by default, but you can choose a custom value.

Type: integer
Required: True

Format: int32

Name

The name for the new gating rule.

Type: string
Required: True
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

ResourceNotFoundException

404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

message

Type: string
Required: True

RuleConfig

The rule configuration for an assertion rule. That is, the criteria that you set for specific assertion controls (routing controls) that specify how many control states must be `ON` after a transaction completes.

Type

A rule can be one of the following: `ATLEAST`, `AND`, or `OR`.

Type: RuleType (p. 30)
Required: True

Inverted

Logical negation of the rule. If the rule would usually evaluate true, it's evaluated as false, and vice versa.

Type: boolean
Required: True

Threshold

The value of N, when you specify an `ATLEAST` rule type. That is, `Threshold` is the number of controls that must be set when you specify an `ATLEAST` type.

Type: integer
Required: True
Format: int32

RuleType

An enumerated type that determines how the evaluated rules are processed. `RuleType` can be one of the following:

ATLEAST - At least N routing controls must be set. You specify N as the `Threshold` in the rule configuration.

AND - All routing controls must be set. This is a shortcut for "At least N," where N is the total number of controls in the rule.

OR - Any control must be set. This is a shortcut for "At least N," where N is 1.

```
ATLEAST
AND
OR
```

Status

The deployment status of a resource. Status can be one of the following:

PENDING: Amazon Route 53 Application Recovery Controller is creating the resource.

DEPLOYED: The resource is deployed and ready to use.

PENDING_DELETION: Amazon Route 53 Application Recovery Controller is deleting the resource.

```
PENDING
DEPLOYED
PENDING_DELETION
```

Tag

A tag that you add to a resource.

Value

The value for a tag.

Type: string
Required: True
MaxLength: 256

Key

The key for a tag.

Type: string
Required: True
MinLength: 1
MaxLength: 128

UpdateSafetyRuleRequest

Request to update a safety rule. A safety rule can be an assertion rule or a gating rule.

GatingRuleUpdate

The gating rule to update.

Type: GatingRuleUpdate (p. 27)

Required: False

AssertionRuleUpdate

The assertion rule to update.

Type: AssertionRuleUpdate (p. 24)
Required: False

UpdateSafetyRuleResponse

The result of a successful `UpdateSafetyRule` request.

AssertionRule

The assertion rule updated.

Type: AssertionRule (p. 23)
Required: False

GatingRule

The gating rule updated.

Type: GatingRule (p. 26)
Required: False

ValidationException

400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you might have used parameters together incorrectly.

message

Type: string
Required: True

See also

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

CreateSafetyRule

- 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

UpdateSafetyRule

- 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

DescribeCluster, DeleteCluster

URI

`/cluster/ClusterArn`

HTTP methods

GET

Operation ID: `DescribeCluster`

Display the details about a cluster. The response includes the cluster name, endpoints, status, and Amazon Resource Name (ARN).

Path parameters

Name	Type	Required	Description
ClusterArn	String	True	The Amazon Resource Name (ARN) of the cluster.

Responses

Status code	Response model	Description
200	DescribeClusterResponse (p. 65)	200 response - Success.
400	ValidationException (p. 36)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.

Status code	Response model	Description
403	AccessDeniedException (p. 34)	403 response - AccessDeniedException. You do not have sufficient access to perform this action.
404	ResourceNotFoundException (p. 36)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
409	ConflictException (p. 36)	409 response - ConflictException. You might be using a predefined variable.
429	ThrottlingException (p. 36)	429 response - LimitExceededException or TooManyRequestsException.
500	InternalServerException (p. 36)	500 response - InternalServiceError. Temporary service error. Retry the request.

DELETE

Operation ID: `DeleteCluster`

Delete a cluster.

Path parameters

Name	Type	Required	Description
ClusterArn	String	True	The Amazon Resource Name (ARN) of the cluster that you're deleting.

Responses

Status code	Response model	Description
200	DeleteClusterResponse (p. 32)	200 response - Success.
400	ValidationException (p. 36)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
403	AccessDeniedException (p. 34)	403 response - AccessDeniedException. You do not have sufficient access to perform this action.

Status code	Response model	Description
404	ResourceNotFoundException (p. 36)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
409	ConflictException (p. 36)	409 response - ConflictException. You might be using a predefined variable.
429	ThrottlingException (p. 36)	429 response - LimitExceededException or TooManyRequestsException.
500	InternalServerException (p. 36)	500 response - InternalServiceError. Temporary service error. Retry the request.

OPTIONS

Path parameters

Name	Type	Required	Description
ClusterArn	String	True	The Amazon Resource Name (ARN) of a cluster.

Responses

Status code	Response model	Description
200	None	200 response - Success.

Schemas

Response bodies

DescribeClusterResponse schema

```
{
  "Cluster": {
    "ClusterArn": "string",
    "Status": enum,
    "ClusterEndpoints": [
      {
        "Endpoint": "string",
        "Region": "string"
      }
    ],
    "Name": "string"
  }
}
```

DeleteClusterResponse schema

```
{
}
```

ValidationException schema

```
{
  "message": "string"
}
```

AccessDeniedException schema

```
{
  "message": "string"
}
```

ResourceNotFoundException schema

```
{
  "message": "string"
}
```

ConflictException schema

```
{
  "message": "string"
}
```

ThrottlingException schema

```
{
  "message": "string"
}
```

InternalServerException schema

```
{
  "message": "string"
}
```

Properties

AccessDeniedException

403 response - You do not have sufficient access to perform this action.

message

Type: string
Required: True

Cluster

A set of five redundant Regional endpoints against which you can execute API calls to update or get the state of routing controls. You can host multiple control panels and routing controls on one cluster.

ClusterArn

The Amazon Resource Name (ARN) of the cluster.

Type: string
Required: False

Status

Deployment status of a resource. Status can be one of the following: PENDING, DEPLOYED, PENDING_DELETION.

Type: Status (p. 39)
Required: False

ClusterEndpoints

Endpoints for a cluster. Specify one of these endpoints when you want to set or retrieve a routing control state in the cluster.

To get or update the routing control state, see the Amazon Route 53 Application Recovery Controller Routing Control Actions.

Type: Array of type ClusterEndpoint (p. 37)
Required: False

Name

The name of the cluster.

Type: string
Required: False
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

ClusterEndpoint

A cluster endpoint. Specify an endpoint when you want to set or retrieve a routing control state in the cluster.

Endpoint

A cluster endpoint. Specify an endpoint and AWS Region when you want to set or retrieve a routing control state in the cluster.

To get or update the routing control state, see the Amazon Route 53 Application Recovery Controller Routing Control Actions.

Type: string
Required: False
MinLength: 1
MaxLength: 128

Region

The AWS Region for a cluster endpoint.

Type: string
Required: False
MinLength: 1
MaxLength: 32

ConflictException

409 response - ConflictException. You might be using a predefined variable.

message

Type: string
Required: True

DeleteClusterResponse

A successful `DeleteCluster` request returns no response.

DescribeClusterResponse

The result of a successful `DescribeCluster` request.

Cluster

The cluster for the `DescribeCluster` request.

Type: Cluster (p. 37)
Required: True

InternalServerException

500 response - InternalServiceError. Temporary service error. Retry the request.

message

Type: string
Required: True

ResourceNotFoundException

404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

message

Type: string
Required: True

Status

The deployment status of a resource. Status can be one of the following:

PENDING: Amazon Route 53 Application Recovery Controller is creating the resource.

DEPLOYED: The resource is deployed and ready to use.

PENDING_DELETION: Amazon Route 53 Application Recovery Controller is deleting the resource.

```
PENDING
DEPLOYED
PENDING_DELETION
```

ThrottlingException

429 response - LimitExceededException or TooManyRequestsException.

message

Type: string
Required: True

ValidationException

400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you might have used parameters together incorrectly.

message

Type: string
Required: True

See also

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

DescribeCluster

- 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

DeleteCluster

- 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

DescribeControlPanel, DeleteControlPanel

URI

`/controlpanel/ControlPanelArn`

HTTP methods

GET

Operation ID: `DescribeControlPanel`

Displays details about a control panel.

Path parameters

Name	Type	Required	Description
ControlPanelArn	String	True	The Amazon Resource Name (ARN) of the control panel.

Responses

Status code	Response model	Description
200	DescribeControlPanelResponse (p. 41)	200 response - Success.
400	ValidationException (p. 43)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.

Status code	Response model	Description
403	AccessDeniedException (p. 43)	403 response - AccessDeniedException. You do not have sufficient access to perform this action.
404	ResourceNotFoundException (p. 43)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
409	ConflictException (p. 43)	409 response - ConflictException. You might be using a predefined variable.
429	ThrottlingException (p. 43)	429 response - LimitExceededException or TooManyRequestsException.
500	InternalServerException (p. 43)	500 response - InternalServiceError. Temporary service error. Retry the request.

DELETE

Operation ID: `DeleteControlPanel`

Deletes a control panel.

Path parameters

Name	Type	Required	Description
ControlPanelArn	String	True	The Amazon Resource Name (ARN) of the control panel.

Responses

Status code	Response model	Description
200	DeleteControlPanelResponse (p. 43)	200 response - Success.
400	ValidationException (p. 43)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
403	AccessDeniedException (p. 43)	403 response - AccessDeniedException. You do not have sufficient access to perform this action.
404	ResourceNotFoundException (p. 43)	404 response - MalformedQueryString. The

Status code	Response model	Description
		query string contains a syntax error or resource not found.
409	ConflictException (p. 43)	409 response - ConflictException. You might be using a predefined variable.
429	ThrottlingException (p. 43)	429 response - LimitExceededException or TooManyRequestsException.
500	InternalServerException (p. 43)	500 response - InternalServiceError. Temporary service error. Retry the request.

OPTIONS

Path parameters

Name	Type	Required	Description
ControlPanelArn	String	True	The Amazon Resource Name (ARN) of a control panel.

Responses

Status code	Response model	Description
200	None	200 response - Success.

Schemas

Response bodies

DescribeControlPanelResponse schema

```
{
  "ControlPanel": {
    "ClusterArn": "string",
    "Status": enum,
    "ControlPanelArn": "string",
    "DefaultControlPanel": boolean,
    "RoutingControlCount": integer,
    "Name": "string"
  }
}
```

DeleteControlPanelResponse schema

```
{
```

```
}
```

ValidationException schema

```
{
  "message": "string"
}
```

AccessDeniedException schema

```
{
  "message": "string"
}
```

ResourceNotFoundException schema

```
{
  "message": "string"
}
```

ConflictException schema

```
{
  "message": "string"
}
```

ThrottlingException schema

```
{
  "message": "string"
}
```

InternalServerException schema

```
{
  "message": "string"
}
```

Properties

AccessDeniedException

403 response - You do not have sufficient access to perform this action.

message

Type: string

Required: True

ConflictException

409 response - ConflictException. You might be using a predefined variable.

message

Type: string
Required: True

ControlPanel

A control panel represents a group of routing controls that can be changed together in a single transaction.

ClusterArn

The Amazon Resource Name (ARN) of the cluster that includes the control panel.

Type: string
Required: False

Status

The deployment status of control panel. Status can be one of the following: PENDING, DEPLOYED, PENDING_DELETION.

Type: Status (p. 45)
Required: False

ControlPanelArn

The Amazon Resource Name (ARN) of the control panel.

Type: string
Required: False

DefaultControlPanel

A flag that Amazon Route 53 Application Recovery Controller sets to true to designate the default control panel for a cluster. When you create a cluster, Amazon Route 53 Application Recovery Controller creates a control panel, and sets this flag for that control panel. If you create a control panel yourself, this flag is set to false.

Type: boolean
Required: False

RoutingControlCount

The number of routing controls in the control panel.

Type: integer

Required: False
Format: int32

Name

The name of the control panel. You can use any non-white space character in the name.

Type: string
Required: False
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

DeleteControlPanelResponse

A successful `DeleteControlPanel` request returns no response.

DescribeControlPanelResponse

The result of a successful `DescribeControlPanel` request.

ControlPanel

Information about the control panel.

Type: ControlPanel (p. 44)
Required: True

InternalServerException

500 response - InternalServiceError. Temporary service error. Retry the request.

message

Type: string
Required: True

ResourceNotFoundException

404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

message

Type: string
Required: True

Status

The deployment status of a resource. Status can be one of the following:

PENDING: Amazon Route 53 Application Recovery Controller is creating the resource.

DEPLOYED: The resource is deployed and ready to use.

PENDING_DELETION: Amazon Route 53 Application Recovery Controller is deleting the resource.

```
PENDING
DEPLOYED
PENDING_DELETION
```

ThrottlingException

429 response - LimitExceededException or TooManyRequestsException.

message

Type: string
Required: True

ValidationException

400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you might have used parameters together incorrectly.

message

Type: string
Required: True

See also

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

DescribeControlPanel

- 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

DeleteControlPanel

- 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

DescribeRoutingControl, DeleteRoutingControl

URI

`/routingcontrol/RoutingControlArn`

HTTP methods

GET

Operation ID: `DescribeRoutingControl`

Displays details about a routing control. A routing control has one of two states: ON and OFF. You can map the routing control state to the state of an Amazon Route 53 health check, which can be used to control routing.

To get or update the routing control state, see the Recovery Cluster (data plane) API actions for Amazon Route 53 Application Recovery Controller.

Path parameters

Name	Type	Required	Description
RoutingControlArn	String	True	The Amazon Resource Name (ARN) of the routing control.

Responses

Status code	Response model	Description
200	DescribeRoutingControlResponse (p. 48)	200 response - Success.
400	ValidationException (p. 49)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
403	AccessDeniedException (p. 50)	403 response - AccessDeniedException. You do not have sufficient access to perform this action.

Status code	Response model	Description
404	ResourceNotFoundException (p. 50)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
409	ConflictException (p. 50)	409 response - ConflictException. You might be using a predefined variable.
429	ThrottlingException (p. 50)	429 response - LimitExceededException or TooManyRequestsException.
500	InternalServerException (p. 50)	500 response - InternalServiceError. Temporary service error. Retry the request.

DELETE

Operation ID: `DeleteRoutingControl`

Deletes a routing control.

Path parameters

Name	Type	Required	Description
RoutingControlArn	String	True	The Amazon Resource Name (ARN) of the routing control that you're deleting.

Responses

Status code	Response model	Description
200	DeleteRoutingControlResponse (p. 49)	200 response - Success.
400	ValidationException (p. 49)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
403	AccessDeniedException (p. 50)	403 response - AccessDeniedException. You do not have sufficient access to perform this action.
404	ResourceNotFoundException (p. 50)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

Status code	Response model	Description
409	ConflictException (p. 50)	409 response - ConflictException. You might be using a predefined variable.
429	ThrottlingException (p. 50)	429 response - LimitExceededException or TooManyRequestsException.
500	InternalServerException (p. 50)	500 response - InternalServiceError. Temporary service error. Retry the request.

OPTIONS

Path parameters

Name	Type	Required	Description
RoutingControlArn	String	True	The Amazon Resource Name (ARN) of a routing control.

Responses

Status code	Response model	Description
200	None	200 response - Success.

Schemas

Response bodies

DescribeRoutingControlResponse schema

```
{
  "RoutingControl": {
    "Status": enum,
    "RoutingControlArn": "string",
    "ControlPanelArn": "string",
    "Name": "string"
  }
}
```

DeleteRoutingControlResponse schema

```
{
}
```

ValidationException schema

```
{
```

```
  "message": "string"
}
```

AccessDeniedException schema

```
{
  "message": "string"
}
```

ResourceNotFoundException schema

```
{
  "message": "string"
}
```

ConflictException schema

```
{
  "message": "string"
}
```

ThrottlingException schema

```
{
  "message": "string"
}
```

InternalServerException schema

```
{
  "message": "string"
}
```

Properties

AccessDeniedException

403 response - You do not have sufficient access to perform this action.

message

Type: string
Required: True

ConflictException

409 response - ConflictException. You might be using a predefined variable.

message

Type: string
Required: True

DeleteRoutingControlResponse

A successful `DeleteRoutingControl` request returns no response.

DescribeRoutingControlResponse

The result of a successful `DescribeRoutingControl` request.

RoutingControl

Information about the routing control.

Type: RoutingControl (p. 51)
Required: True

InternalServerException

500 response - InternalServiceError. Temporary service error. Retry the request.

message

Type: string
Required: True

ResourceNotFoundException

404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

message

Type: string
Required: True

RoutingControl

A routing control has one of two states: ON and OFF. You can map the routing control state to the state of an Amazon Route 53 health check, which can be used to control traffic routing.

Status

The deployment status of a routing control. Status can be one of the following: PENDING, DEPLOYED, PENDING_DELETION.

Type: Status (p. 52)
Required: False

RoutingControlArn

The Amazon Resource Name (ARN) of the routing control.

Type: string
Required: False

ControlPanelArn

The Amazon Resource Name (ARN) of the control panel that includes the routing control.

Type: string
Required: False

Name

The name of the routing control.

Type: string
Required: False
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

Status

The deployment status of a resource. Status can be one of the following:

PENDING: Amazon Route 53 Application Recovery Controller is creating the resource.

DEPLOYED: The resource is deployed and ready to use.

PENDING_DELETION: Amazon Route 53 Application Recovery Controller is deleting the resource.

```
PENDING
DEPLOYED
PENDING_DELETION
```

ThrottlingException

429 response - LimitExceededException or TooManyRequestsException.

message

Type: string
Required: True

ValidationException

400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you might have used parameters together incorrectly.

message

Type: string

Required: True

See also

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

DescribeRoutingControl

- 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

DeleteRoutingControl

- 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

DescribeSafetyRule, DeleteSafetyRule

URI

`/safetyrule/`*`SafetyRuleArn`*

HTTP methods

GET

Operation ID: `DescribeSafetyRule`

Returns information about a safety rule.

Path parameters

Name	Type	Required	Description
SafetyRuleArn	String	True	The ARN of the safety rule.

Responses

Status code	Response model	Description
200	DescribeSafetyRuleResponse (p. 55)	200 response - Success.
400	ValidationException (p. 56)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
404	ResourceNotFoundException (p. 56)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

DELETE

Operation ID: `DeleteSafetyRule`

Deletes a safety rule.

Path parameters

Name	Type	Required	Description
SafetyRuleArn	String	True	The ARN of the safety rule.

Responses

Status code	Response model	Description
200	DeleteSafetyRuleResponse (p. 56)	200 response - Success.
400	ValidationException (p. 56)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
404	ResourceNotFoundException (p. 56)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

Status code	Response model	Description
500	InternalServerException (p. 56)	500 response - InternalServiceError. Temporary service error. Retry the request.

OPTIONS

Path parameters

Name	Type	Required	Description
SafetyRuleArn	String	True	The ARN of the safety rule.

Responses

Status code	Response model	Description
200	None	200 response - Success.

Schemas

Response bodies

DescribeSafetyRuleResponse schema

```
{
  "AssertionRule": {
    "Status": enum,
    "ControlPanelArn": "string",
    "AssertedControls": [
      "string"
    ],
    "SafetyRuleArn": "string",
    "RuleConfig": {
      "Type": enum,
      "Inverted": boolean,
      "Threshold": integer
    },
    "WaitPeriodMs": integer,
    "Name": "string"
  },
  "GatingRule": {
    "Status": enum,
    "TargetControls": [
      "string"
    ],
    "ControlPanelArn": "string",
    "GatingControls": [
      "string"
    ],
    "SafetyRuleArn": "string",
    "RuleConfig": {
      "Type": enum,
      "Inverted": boolean,
```

```
      "Threshold": integer
    },
    "WaitPeriodMs": integer,
    "Name": "string"
  }
}
```

DeleteSafetyRuleResponse schema

```
{
}
```

ValidationException schema

```
{
  "message": "string"
}
```

ResourceNotFoundException schema

```
{
  "message": "string"
}
```

InternalServerException schema

```
{
  "message": "string"
}
```

Properties

AssertionRule

An assertion rule enforces that, when you change a routing control state, that the criteria that you set in the rule configuration is met. Otherwise, the change to the routing control is not accepted. For example, the criteria might be that at least one routing control state is `On` after the transaction so that traffic continues to flow to at least one cell for the application. This ensures that you avoid a fail-open scenario.

Status

The deployment status of an assertion rule. Status can be one of the following: PENDING, DEPLOYED, PENDING_DELETION.

Type: Status (p. 60)
Required: True

ControlPanelArn

The Amazon Resource Name (ARN) of the control panel.

Type: string
Required: True

AssertedControls

The routing controls that are part of transactions that are evaluated to determine if a request to change a routing control state is allowed. For example, you might include three routing controls, one for each of three AWS Regions.

Type: Array of type string
Required: True

SafetyRuleArn

The Amazon Resource Name (ARN) of the assertion rule.

Type: string
Required: True

RuleConfig

The criteria that you set for specific assertion routing controls (AssertedControls) that designate how many routing control states must be `ON` as the result of a transaction. For example, if you have three assertion routing controls, you might specify `atleast` 2 for your rule configuration. This means that at least two assertion routing control states must be `ON`, so that at least two AWS Regions have traffic flowing to them.

Type: RuleConfig (p. 60)
Required: True

WaitPeriodMs

An evaluation period, in milliseconds (ms), during which any request against the target routing controls will fail. This helps prevent "flapping" of state. The wait period is 5000 ms by default, but you can choose a custom value.

Type: integer
Required: True
Format: int32

Name

Name of the assertion rule. You can use any non-white space character in the name.

Type: string
Required: True
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

DeleteSafetyRuleResponse

There is an empty response when you delete a safety rule.

DescribeSafetyRuleResponse

The response when you send a `DescribeSafetyRuleResponse` request.

AssertionRule

The assertion rule in the response.

Type: AssertionRule (p. 56)
Required: False

GatingRule

The gating rule in the response.

Type: GatingRule (p. 58)
Required: False

GatingRule

A gating rule verifies that a gating routing control or set of gating routing controls, evaluates as true, based on a rule configuration that you specify, which allows a set of routing control state changes to complete.

For example, if you specify one gating routing control and you set the `Type` in the rule configuration to `OR`, that indicates that you must set the gating routing control to `On` for the rule to evaluate as true; that is, for the gating control "switch" to be "On". When you do that, then you can update the routing control states for the target routing controls that you specify in the gating rule.

Status

The deployment status of a gating rule. Status can be one of the following: PENDING, DEPLOYED, PENDING_DELETION.

Type: Status (p. 60)
Required: True

TargetControls

An array of target routing control Amazon Resource Names (ARNs) for which the states can only be updated if the rule configuration that you specify evaluates to true for the gating routing control. As a simple example, if you have a single gating control, it acts as an overall "on/off" switch for a set of target routing controls. You can use this to manually override automated failover, for example.

Type: Array of type string
Required: True

ControlPanelArn

The Amazon Resource Name (ARN) of the control panel.

Type: string
Required: True

GatingControls

An array of gating routing control Amazon Resource Names (ARNs). For a simple "on/off" switch, specify the ARN for one routing control. The gating routing controls are evaluated by the rule configuration that you specify to determine if the target routing control states can be changed.

Type: Array of type string
Required: True

SafetyRuleArn

The Amazon Resource Name (ARN) of the gating rule.

Type: string
Required: True

RuleConfig

The criteria that you set for gating routing controls that designate how many of the routing control states must be `ON` to allow you to update target routing control states.

Type: RuleConfig (p. 60)
Required: True

WaitPeriodMs

An evaluation period, in milliseconds (ms), during which any request against the target routing controls will fail. This helps prevent "flapping" of state. The wait period is 5000 ms by default, but you can choose a custom value.

Type: integer
Required: True
Format: int32

Name

The name of the gating rule. You can use any non-white space character in the name.

Type: string
Required: True
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

InternalServerException

500 response - InternalServiceError. Temporary service error. Retry the request.

message

Type: string
Required: True

ResourceNotFoundException

404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

message

Type: string

Required: True

RuleConfig

The rule configuration for an assertion rule. That is, the criteria that you set for specific assertion controls (routing controls) that specify how many control states must be `ON` after a transaction completes.

Type

A rule can be one of the following: `ATLEAST`, `AND`, or `OR`.

Type: RuleType (p. 60)
Required: True

Inverted

Logical negation of the rule. If the rule would usually evaluate true, it's evaluated as false, and vice versa.

Type: boolean
Required: True

Threshold

The value of N, when you specify an `ATLEAST` rule type. That is, `Threshold` is the number of controls that must be set when you specify an `ATLEAST` type.

Type: integer
Required: True
Format: int32

RuleType

An enumerated type that determines how the evaluated rules are processed. `RuleType` can be one of the following:

ATLEAST - At least N routing controls must be set. You specify N as the `Threshold` in the rule configuration.

AND - All routing controls must be set. This is a shortcut for "At least N," where N is the total number of controls in the rule.

OR - Any control must be set. This is a shortcut for "At least N," where N is 1.

```
ATLEAST
AND
OR
```

Status

The deployment status of a resource. Status can be one of the following:

PENDING: Amazon Route 53 Application Recovery Controller is creating the resource.

DEPLOYED: The resource is deployed and ready to use.

PENDING_DELETION: Amazon Route 53 Application Recovery Controller is deleting the resource.

```
PENDING
DEPLOYED
PENDING_DELETION
```

ValidationException

400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you might have used parameters together incorrectly.

message

Type: string
Required: True

See also

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

DescribeSafetyRule

- 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

DeleteSafetyRule

- 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

ListAssociatedRoute53HealthChecks

URI

`/routingcontrol/RoutingControlArn/associatedRoute53HealthChecks`

HTTP methods

GET

Operation ID: `ListAssociatedRoute53HealthChecks`

Returns an array of all Amazon Route 53 health checks associated with a specific routing control.

Path parameters

Name	Type	Required	Description
RoutingControlArn	String	True	The Amazon Resource Name (ARN) of the routing control.

Query parameters

Name	Type	Required	Description
MaxResults	String	False	The number of objects that you want to return with this call.
NextToken	String	False	The token that identifies which batch of results you want to see.

Responses

Status code	Response model	Description
200	ListAssociatedRoute53HealthChecksResponse (p. 63)	200 response - Success.
400	ValidationException (p. 63)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
404	ResourceNotFoundException (p. 63)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

Status code	Response model	Description
500	InternalServerException (p. 63)	500 response - InternalServiceError. Temporary service error. Retry the request.

OPTIONS

Path parameters

Name	Type	Required	Description
RoutingControlArn	String	True	The Amazon Resource Name (ARN) of a routing control.

Responses

Status code	Response model	Description
200	None	200 response - Success.

Schemas

Response bodies

ListAssociatedRoute53HealthChecksResponse schema

```
{
  "NextToken": "string",
  "HealthCheckIds": [
    "string"
  ]
}
```

ValidationException schema

```
{
  "message": "string"
}
```

ResourceNotFoundException schema

```
{
  "message": "string"
}
```

InternalServerException schema

```
{
```

```
  "message": "string"
}
```

Properties

InternalServerException

500 response - InternalServiceError. Temporary service error. Retry the request.

message

Type: string
Required: True

ListAssociatedRoute53HealthChecksResponse

The result of a successful `ListAssociatedRoute53HealthChecks` request.

NextToken

Next token for listing health checks.

Type: string
Required: False
MaxLength: 8096

HealthCheckIds

Identifiers for the health checks.

Type: Array of type string
Required: True

ResourceNotFoundException

404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

message

Type: string
Required: True

ValidationException

400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you might have used parameters together incorrectly.

message

Type: string
Required: True

See also

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

ListAssociatedRoute53HealthChecks

- 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

ListClusters, CreateCluster

URI

`/cluster`

HTTP methods

GET

Operation ID: `ListClusters`

Returns an array of all the clusters in an account.

Query parameters

Name	Type	Required	Description
`MaxResults`	String	False	The number of objects that you want to return with this call.
`NextToken`	String	False	The token that identifies which batch of results you want to see.

Responses

Status code	Response model	Description
`200`	`ListClustersResponse (p. 67)`	200 response - Success.
`400`	`ValidationException (p. 68)`	400 response - Multiple causes. For example, you might have

Status code	Response model	Description
		a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
403	AccessDeniedException (p. 64)	403 response - AccessDeniedException. You do not have sufficient access to perform this action.
404	ResourceNotFoundException (p. 68)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
429	ThrottlingException (p. 69)	429 response - LimitExceededException or TooManyRequestsException.
500	InternalServerException (p. 66)	500 response - InternalServiceError. Temporary service error. Retry the request.

POST

Operation ID: `CreateCluster`

Create a new cluster. A cluster is a set of redundant Regional endpoints against which you can run API calls to update or get the state of one or more routing controls. Each cluster has a name, status, Amazon Resource Name (ARN), and an array of the five cluster endpoints (one for each supported AWS Region) that you can use with API calls to the cluster data plane.

Responses

Status code	Response model	Description
200	CreateClusterResponse (p. 62)	200 response - Success.
400	ValidationException (p. 68)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
402	ServiceQuotaExceededException (p. 68)	402 response
403	AccessDeniedException (p. 64)	403 response - AccessDeniedException. You do not have sufficient access to perform this action.
404	ResourceNotFoundException (p. 68)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

Status code	Response model	Description
409	ConflictException (p. 68)	409 response - ConflictException. You might be using a predefined variable.
429	ThrottlingException (p. 69)	429 response - LimitExceededException or TooManyRequestsException.
500	InternalServerException (p. 68)	500 response - InternalServiceError. Temporary service error. Retry the request.

OPTIONS

Responses

Status code	Response model	Description
200	None	200 response - Success.

Schemas

Request bodies

POST schema

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

Response bodies

ListClustersResponse schema

```
{
  "NextToken": "string",
  "Clusters": [
    {
      "ClusterArn": "string",
      "Status": enum,
      "ClusterEndpoints": [
        {
          "Endpoint": "string",
          "Region": "string"
        }
      ],
```

```
      "Name": "string"
    }
  ]
}
```

CreateClusterResponse schema

```
{
  "Cluster": {
    "ClusterArn": "string",
    "Status": enum,
    "ClusterEndpoints": [
      {
        "Endpoint": "string",
        "Region": "string"
      }
    ],
    "Name": "string"
  }
}
```

ValidationException schema

```
{
  "message": "string"
}
```

ServiceQuotaExceededException schema

```
{
  "message": "string"
}
```

AccessDeniedException schema

```
{
  "message": "string"
}
```

ResourceNotFoundException schema

```
{
  "message": "string"
}
```

ConflictException schema

```
{
  "message": "string"
}
```

ThrottlingException schema

```
{
  "message": "string"
}
```

InternalServerException schema

```
{
  "message": "string"
}
```

Properties

AccessDeniedException

403 response - You do not have sufficient access to perform this action.

message

Type: string
Required: True

Cluster

A set of five redundant Regional endpoints against which you can execute API calls to update or get the state of routing controls. You can host multiple control panels and routing controls on one cluster.

ClusterArn

The Amazon Resource Name (ARN) of the cluster.

Type: string
Required: False

Status

Deployment status of a resource. Status can be one of the following: PENDING, DEPLOYED, PENDING_DELETION.

Type: Status (p. 72)
Required: False

ClusterEndpoints

Endpoints for a cluster. Specify one of these endpoints when you want to set or retrieve a routing control state in the cluster.

To get or update the routing control state, see the Amazon Route 53 Application Recovery Controller Routing Control Actions.

Type: Array of type ClusterEndpoint (p. 70)
Required: False

Name

The name of the cluster.

Type: string
Required: False
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

ClusterEndpoint

A cluster endpoint. Specify an endpoint when you want to set or retrieve a routing control state in the cluster.

Endpoint

A cluster endpoint. Specify an endpoint and AWS Region when you want to set or retrieve a routing control state in the cluster.

To get or update the routing control state, see the Amazon Route 53 Application Recovery Controller Routing Control Actions.

Type: string
Required: False
MinLength: 1
MaxLength: 128

Region

The AWS Region for a cluster endpoint.

Type: string
Required: False
MinLength: 1
MaxLength: 32

ConflictException

409 response - ConflictException. You might be using a predefined variable.

message

Type: string
Required: True

CreateClusterRequest

The properties of a request to create a cluster.

ClusterName

The name of the cluster.

Type: string
Required: True
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

ClientToken

A unique, case-sensitive string of up to 64 ASCII characters. To make an idempotent API request with an action, specify a client token in the request.

Type: string
Required: False
MaxLength: 64

Tags

The tags associated with the cluster.

Type: Array of type Tag (p. 72)
Required: False

CreateClusterResponse

The result of a successful `CreateCluster` request.

Cluster

The cluster that was created.

Type: Cluster (p. 69)
Required: True

InternalServerException

500 response - InternalServiceError. Temporary service error. Retry the request.

message

Type: string
Required: True

ListClustersResponse

The result of a successful `ListClusters` request.

NextToken

The token that identifies which batch of results you want to see.

Type: string
Required: False
MaxLength: 8096

Clusters

An array of the clusters in an account.

Type: Array of type Cluster (p. 69)
Required: False

ResourceNotFoundException

404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

message

Type: string
Required: True

ServiceQuotaExceededException

402 response - You attempted to create more resources than the service allows based on service quotas.

message

Type: string
Required: True

Status

The deployment status of a resource. Status can be one of the following:

PENDING: Amazon Route 53 Application Recovery Controller is creating the resource.

DEPLOYED: The resource is deployed and ready to use.

PENDING_DELETION: Amazon Route 53 Application Recovery Controller is deleting the resource.

```
PENDING
DEPLOYED
PENDING_DELETION
```

Tag

A tag that you add to a resource.

Value

The value for a tag.

Type: string
Required: True
MaxLength: 256

Key

The key for a tag.

Type: string
Required: True
MinLength: 1
MaxLength: 128

ThrottlingException

429 response - LimitExceededException or TooManyRequestsException.

message

Type: string
Required: True

ValidationException

400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you might have used parameters together incorrectly.

message

Type: string
Required: True

See also

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

ListClusters

- 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

CreateCluster

- 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

ListControlPanels

URI

`/controlpanels`

HTTP methods

GET

Operation ID: `ListControlPanels`

Returns an array of control panels in an account or in a cluster.

Query parameters

Name	Type	Required	Description
`ClusterArn`	String	False	The Amazon Resource Name (ARN) of a cluster.
`MaxResults`	String	False	The number of objects that you want to return with this call.
`NextToken`	String	False	The token that identifies which batch of results you want to see.

Responses

Status code	Response model	Description
`200`	`ListControlPanelsResponse (p. 75)`	200 response - Success.
`400`	`ValidationException (p. 75)`	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
`403`	`AccessDeniedException (p. 75)`	403 response - AccessDeniedException. You do not have sufficient access to perform this action.

Status code	Response model	Description
404	ResourceNotFoundException (p. 77)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
429	ThrottlingException (p. 76)	429 response - LimitExceededException or TooManyRequestsException.
500	InternalServerException (p. 76)	500 response - InternalServiceError. Temporary service error. Retry the request.

OPTIONS

Responses

Status code	Response model	Description
200	None	200 response - Success.

Schemas

Response bodies

ListControlPanelsResponse schema

```
{
  "ControlPanels": [
    {
      "ClusterArn": "string",
      "Status": enum,
      "ControlPanelArn": "string",
      "DefaultControlPanel": boolean,
      "RoutingControlCount": integer,
      "Name": "string"
    }
  ],
  "NextToken": "string"
}
```

ValidationException schema

```
{
  "message": "string"
}
```

AccessDeniedException schema

```
{
  "message": "string"
```

```
}
```

ResourceNotFoundException schema

```
{
  "message": "string"
}
```

ThrottlingException schema

```
{
  "message": "string"
}
```

InternalServerException schema

```
{
  "message": "string"
}
```

Properties

AccessDeniedException

403 response - You do not have sufficient access to perform this action.

message

Type: string
Required: True

ControlPanel

A control panel represents a group of routing controls that can be changed together in a single transaction.

ClusterArn

The Amazon Resource Name (ARN) of the cluster that includes the control panel.

Type: string
Required: False

Status

The deployment status of control panel. Status can be one of the following: PENDING, DEPLOYED, PENDING_DELETION.

Type: Status (p. 78)
Required: False

ControlPanelArn

The Amazon Resource Name (ARN) of the control panel.

Type: string
Required: False

DefaultControlPanel

A flag that Amazon Route 53 Application Recovery Controller sets to true to designate the default control panel for a cluster. When you create a cluster, Amazon Route 53 Application Recovery Controller creates a control panel, and sets this flag for that control panel. If you create a control panel yourself, this flag is set to false.

Type: boolean
Required: False

RoutingControlCount

The number of routing controls in the control panel.

Type: integer
Required: False
Format: int32

Name

The name of the control panel. You can use any non-white space character in the name.

Type: string
Required: False
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

InternalServerException

500 response - InternalServiceError. Temporary service error. Retry the request.

message

Type: string
Required: True

ListControlPanelsResponse

The result of a successful `ListControlPanel` request.

ControlPanels

The result of a successful `ListControlPanel` request.

Type: Array of type ControlPanel (p. 76)
Required: False

NextToken

The token that identifies which batch of results you want to see.

Type: string
Required: False
MaxLength: 8096

ResourceNotFoundException

404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

message

Type: string
Required: True

Status

The deployment status of a resource. Status can be one of the following:

PENDING: Amazon Route 53 Application Recovery Controller is creating the resource.

DEPLOYED: The resource is deployed and ready to use.

PENDING_DELETION: Amazon Route 53 Application Recovery Controller is deleting the resource.

```
PENDING
DEPLOYED
PENDING_DELETION
```

ThrottlingException

429 response - LimitExceededException or TooManyRequestsException.

message

Type: string
Required: True

ValidationException

400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you might have used parameters together incorrectly.

message

Type: string
Required: True

See also

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

ListControlPanels

- 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

ListRoutingControls

URI

`/controlpanel/ControlPanelArn/routingcontrols`

HTTP methods

GET

Operation ID: `ListRoutingControls`

Returns an array of routing controls for a control panel. A routing control is an Amazon Route 53 Application Recovery Controller construct that has one of two states: ON and OFF. You can map the routing control state to the state of an Amazon Route 53 health check, which can be used to control routing.

Path parameters

Name	Type	Required	Description
ControlPanelArn	String	True	The Amazon Resource Name (ARN) of the control panel.

Query parameters

Name	Type	Required	Description
MaxResults	String	False	The number of objects that you want to return with this call.
NextToken	String	False	The token that identifies which batch of results you want to see.

Responses

Status code	Response model	Description
200	ListRoutingControlsResponse (p. 80)	200 response - Success.
400	ValidationException (p. 81)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
403	AccessDeniedException (p. 80)	403 response - AccessDeniedException. You do not have sufficient access to perform this action.
404	ResourceNotFoundException (p. 80)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
429	ThrottlingException (p. 81)	429 response - LimitExceededException or TooManyRequestsException.
500	InternalServerException (p. 80)	500 response - InternalServiceError. Temporary service error. Retry the request.

OPTIONS

Path parameters

Name	Type	Required	Description
ControlPanelArn	String	True	The Amazon Resource Name (ARN) of a control panel.

Responses

Status code	Response model	Description
200	None	200 response - Success.

Schemas

Response bodies

ListRoutingControlsResponse schema

```
{
```

```
  "NextToken": "string",
  "RoutingControls": [
    {
      "Status": enum,
      "RoutingControlArn": "string",
      "ControlPanelArn": "string",
      "Name": "string"
    }
  ]
}
```

ValidationException schema

```
{
  "message": "string"
}
```

AccessDeniedException schema

```
{
  "message": "string"
}
```

ResourceNotFoundException schema

```
{
  "message": "string"
}
```

ThrottlingException schema

```
{
  "message": "string"
}
```

InternalServerException schema

```
{
  "message": "string"
}
```

Properties

AccessDeniedException

403 response - You do not have sufficient access to perform this action.

message

Type: string
Required: True

InternalServerException

500 response - InternalServiceError. Temporary service error. Retry the request.

message

Type: string
Required: True

ListRoutingControlsResponse

The result of a successful `ListRoutingControl` request.

NextToken

The token that identifies which batch of results you want to see.

Type: string
Required: False
MaxLength: 8096

RoutingControls

An array of routing controls.

Type: Array of type RoutingControl (p. 82)
Required: False

ResourceNotFoundException

404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

message

Type: string
Required: True

RoutingControl

A routing control has one of two states: ON and OFF. You can map the routing control state to the state of an Amazon Route 53 health check, which can be used to control traffic routing.

Status

The deployment status of a routing control. Status can be one of the following: PENDING, DEPLOYED, PENDING_DELETION.

Type: Status (p. 83)
Required: False

RoutingControlArn

The Amazon Resource Name (ARN) of the routing control.

Type: string
Required: False

ControlPanelArn

The Amazon Resource Name (ARN) of the control panel that includes the routing control.

Type: string
Required: False

Name

The name of the routing control.

Type: string
Required: False
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

Status

The deployment status of a resource. Status can be one of the following:

PENDING: Amazon Route 53 Application Recovery Controller is creating the resource.

DEPLOYED: The resource is deployed and ready to use.

PENDING_DELETION: Amazon Route 53 Application Recovery Controller is deleting the resource.

```
PENDING
DEPLOYED
PENDING_DELETION
```

ThrottlingException

429 response - LimitExceededException or TooManyRequestsException.

message

Type: string
Required: True

ValidationException

400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you might have used parameters together incorrectly.

message

Type: string
Required: True

See also

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

ListRoutingControls

- 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

ListSafetyRules

URI

`/controlpanel/ControlPanelArn/safetyrules`

HTTP methods

GET

Operation ID: `ListSafetyRules`

List the safety rules (the assertion rules and gating rules) that you've defined for the routing controls in a control panel.

Path parameters

Name	Type	Required	Description
ControlPanelArn	String	True	The Amazon Resource Name (ARN) of the control panel.

Query parameters

Name	Type	Required	Description
MaxResults	String	False	The number of objects that you want to return with this call.
NextToken	String	False	The token that identifies which batch of results you want to see.

Responses

Status code	Response model	Description
200	ListSafetyRulesResponse (p. 865)	200 response - Success.
400	ValidationException (p. 867)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
403	AccessDeniedException (p. 863)	403 response - AccessDeniedException. You do not have sufficient access to perform this action.
404	ResourceNotFoundException (p. 866)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
429	ThrottlingException (p. 870)	429 response - LimitExceededException or TooManyRequestsException.
500	InternalServerException (p. 864)	500 response - InternalServiceError. Temporary service error. Retry the request.

OPTIONS

Path parameters

Name	Type	Required	Description
ControlPanelArn	String	True	The Amazon Resource Name (ARN) of a control panel.

Responses

Status code	Response model	Description
200	None	200 response - Success.

Schemas

Response bodies

ListSafetyRulesResponse schema

```
{
```

```
  "NextToken": "string",
  "SafetyRules": [
    {
      "ASSERTION": {
        "Status": enum,
        "ControlPanelArn": "string",
        "AssertedControls": [
          "string"
        ],
        "SafetyRuleArn": "string",
        "RuleConfig": {
          "Type": enum,
          "Inverted": boolean,
          "Threshold": integer
        },
        "WaitPeriodMs": integer,
        "Name": "string"
      },
      "GATING": {
        "Status": enum,
        "TargetControls": [
          "string"
        ],
        "ControlPanelArn": "string",
        "GatingControls": [
          "string"
        ],
        "SafetyRuleArn": "string",
        "RuleConfig": {
          "Type": enum,
          "Inverted": boolean,
          "Threshold": integer
        },
        "WaitPeriodMs": integer,
        "Name": "string"
      }
    }
  ]
}
```

ValidationException schema

```
{
  "message": "string"
}
```

AccessDeniedException schema

```
{
  "message": "string"
}
```

ResourceNotFoundException schema

```
{
  "message": "string"
}
```

ThrottlingException schema

```
{
  "message": "string"
}
```

InternalServerException schema

```
{
  "message": "string"
}
```

Properties

AccessDeniedException

403 response - You do not have sufficient access to perform this action.

message

Type: string
Required: True

AssertionRule

An assertion rule enforces that, when you change a routing control state, that the criteria that you set in the rule configuration is met. Otherwise, the change to the routing control is not accepted. For example, the criteria might be that at least one routing control state is `On` after the transaction so that traffic continues to flow to at least one cell for the application. This ensures that you avoid a fail-open scenario.

Status

The deployment status of an assertion rule. Status can be one of the following: PENDING, DEPLOYED, PENDING_DELETION.

Type: Status (p. 92)
Required: True

ControlPanelArn

The Amazon Resource Name (ARN) of the control panel.

Type: string
Required: True

AssertedControls

The routing controls that are part of transactions that are evaluated to determine if a request to change a routing control state is allowed. For example, you might include three routing controls, one for each of three AWS Regions.

Type: Array of type string
Required: True

SafetyRuleArn

The Amazon Resource Name (ARN) of the assertion rule.

Type: string
Required: True

RuleConfig

The criteria that you set for specific assertion routing controls (AssertedControls) that designate how many routing control states must be `ON` as the result of a transaction. For example, if you have three assertion routing controls, you might specify `atleast` 2 for your rule configuration. This means that at least two assertion routing control states must be `ON`, so that at least two AWS Regions have traffic flowing to them.

Type: RuleConfig (p. 91)
Required: True

WaitPeriodMs

An evaluation period, in milliseconds (ms), during which any request against the target routing controls will fail. This helps prevent "flapping" of state. The wait period is 5000 ms by default, but you can choose a custom value.

Type: integer
Required: True
Format: int32

Name

Name of the assertion rule. You can use any non-white space character in the name.

Type: string
Required: True
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

GatingRule

A gating rule verifies that a gating routing control or set of gating routing controls, evaluates as true, based on a rule configuration that you specify, which allows a set of routing control state changes to complete.

For example, if you specify one gating routing control and you set the `Type` in the rule configuration to `OR`, that indicates that you must set the gating routing control to `On` for the rule to evaluate as true; that is, for the gating control "switch" to be "On". When you do that, then you can update the routing control states for the target routing controls that you specify in the gating rule.

Status

The deployment status of a gating rule. Status can be one of the following: PENDING, DEPLOYED, PENDING_DELETION.

Type: Status (p. 92)
Required: True

TargetControls

An array of target routing control Amazon Resource Names (ARNs) for which the states can only be updated if the rule configuration that you specify evaluates to true for the gating routing control. As a simple example, if you have a single gating control, it acts as an overall "on/off" switch for a set of target routing controls. You can use this to manually override automated failover, for example.

Type: Array of type string
Required: True

ControlPanelArn

The Amazon Resource Name (ARN) of the control panel.

Type: string
Required: True

GatingControls

An array of gating routing control Amazon Resource Names (ARNs). For a simple "on/off" switch, specify the ARN for one routing control. The gating routing controls are evaluated by the rule configuration that you specify to determine if the target routing control states can be changed.

Type: Array of type string
Required: True

SafetyRuleArn

The Amazon Resource Name (ARN) of the gating rule.

Type: string
Required: True

RuleConfig

The criteria that you set for gating routing controls that designate how many of the routing control states must be `ON` to allow you to update target routing control states.

Type: RuleConfig (p. 91)
Required: True

WaitPeriodMs

An evaluation period, in milliseconds (ms), during which any request against the target routing controls will fail. This helps prevent "flapping" of state. The wait period is 5000 ms by default, but you can choose a custom value.

Type: integer
Required: True
Format: int32

Name

The name of the gating rule. You can use any non-white space character in the name.

Type: string
Required: True
Pattern: `^\S+$`
MinLength: 1
MaxLength: 64

InternalServerException

500 response - InternalServiceError. Temporary service error. Retry the request.

message

Type: string
Required: True

ListSafetyRulesResponse

The response to a `ListSafetyRulesRequest`.

NextToken

The token that identifies which batch of results you want to see.

Type: string
Required: False
MaxLength: 8096

SafetyRules

The list of safety rules in a control panel.

Type: Array of type Rule (p. 90)
Required: False

ResourceNotFoundException

404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

message

Type: string
Required: True

Rule

A safety rule. A safety rule can be an assertion rule or a gating rule.

ASSERTION

An assertion rule enforces that, when a routing control state is changed, the criteria set by the rule configuration is met. Otherwise, the change to the routing control state is not accepted. For example,

the criteria might be that at least one routing control state is `On` after the transaction so that traffic continues to flow to at least one cell for the application. This ensures that you avoid a fail-open scenario.

Type: AssertionRule (p. 87)
Required: False

GATING

A gating rule verifies that a gating routing control or set of gating routing controls, evaluates as true, based on a rule configuration that you specify, which allows a set of routing control state changes to complete.

For example, if you specify one gating routing control and you set the `Type` in the rule configuration to `OR`, that indicates that you must set the gating routing control to `On` for the rule to evaluate as true; that is, for the gating control "switch" to be "On". When you do that, then you can update the routing control states for the target routing controls that you specify in the gating rule.

Type: GatingRule (p. 88)
Required: False

RuleConfig

The rule configuration for an assertion rule. That is, the criteria that you set for specific assertion controls (routing controls) that specify how many control states must be `ON` after a transaction completes.

Type

A rule can be one of the following: `ATLEAST`, `AND`, or `OR`.

Type: RuleType (p. 91)
Required: True

Inverted

Logical negation of the rule. If the rule would usually evaluate true, it's evaluated as false, and vice versa.

Type: boolean
Required: True

Threshold

The value of N, when you specify an `ATLEAST` rule type. That is, `Threshold` is the number of controls that must be set when you specify an `ATLEAST` type.

Type: integer
Required: True
Format: int32

RuleType

An enumerated type that determines how the evaluated rules are processed. `RuleType` can be one of the following:

ATLEAST - At least N routing controls must be set. You specify N as the `Threshold` in the rule configuration.

AND - All routing controls must be set. This is a shortcut for "At least N," where N is the total number of controls in the rule.

OR - Any control must be set. This is a shortcut for "At least N," where N is 1.

```
ATLEAST
AND
OR
```

Status

The deployment status of a resource. Status can be one of the following:

PENDING: Amazon Route 53 Application Recovery Controller is creating the resource.

DEPLOYED: The resource is deployed and ready to use.

PENDING_DELETION: Amazon Route 53 Application Recovery Controller is deleting the resource.

```
PENDING
DEPLOYED
PENDING_DELETION
```

ThrottlingException

429 response - LimitExceededException or TooManyRequestsException.

message

Type: string
Required: True

ValidationException

400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you might have used parameters together incorrectly.

message

Type: string
Required: True

See also

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

ListSafetyRules

- 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

ListTagsForResources, TagResource, UntagResource

URI

`/tags/ResourceArn`

HTTP methods

GET

Operation ID: `ListTagsForResource`

Lists the tags for a resource.

Path parameters

Name	Type	Required	Description
ResourceArn	String	True	The Amazon Resource Name (ARN) for the resource that's tagged.

Responses

Status code	Response model	Description
200	ListTagsForResourceResponse (p. 90)	200 response - Success.
400	ValidationException (p. 96)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
404	ResourceNotFoundException (p. 95)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
500	InternalServerException (p. 86)	500 response - InternalServiceError. Temporary service error. Retry the request.

POST

Operation ID: `TagResource`

Adds a tag to a resource.

Path parameters

Name	Type	Required	Description
ResourceArn	String	True	The Amazon Resource Name (ARN) for the resource that's tagged.

Responses

Status code	Response model	Description
200	TagResourceResponse (p. 96)	200 response - Success.
400	ValidationException (p. 96)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
404	ResourceNotFoundException (p. 96)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
500	InternalServerException (p. 96)	500 response - InternalServiceError. Temporary service error. Retry the request.

DELETE

Operation ID: `UntagResource`

Removes a tag from a resource.

Path parameters

Name	Type	Required	Description
ResourceArn	String	True	The Amazon Resource Name (ARN) for the resource that's tagged.

Query parameters

Name	Type	Required	Description
TagKeys	String	True	Keys for the tags to be removed.

Responses

Status code	Response model	Description
200	UntagResourceResponse (p. 92)	200 response - Success.
400	ValidationException (p. 96)	400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you used parameters together incorrectly.
404	ResourceNotFoundException (p. 95)	404 response - MalformedQueryString. The query string contains a syntax error or resource not found.
500	InternalServerException (p. 93)	500 response - InternalServiceError. Temporary service error. Retry the request.

OPTIONS

Path parameters

Name	Type	Required	Description
ResourceArn	String	True	The Amazon Resource Name (ARN) for the resource that's tagged.

Responses

Status code	Response model	Description
200	None	Default response for CORS method

Schemas

Request bodies

POST schema

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

Response bodies

ListTagsForResourceResponse schema

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

TagResourceResponse schema

```
{
}
```

UntagResourceResponse schema

```
{
}
```

ValidationException schema

```
{
  "message": "string"
}
```

ResourceNotFoundException schema

```
{
  "message": "string"
}
```

InternalServerException schema

```
{
  "message": "string"
}
```

Properties

InternalServerException

500 response - InternalServiceError. Temporary service error. Retry the request.

message

Type: string

Required: True

ListTagsForResourceResponse

The result of a successful `ListTagsForResource` request.

Tags

The tags associated with the resource.

Type: Array of type Tag (p. 97)
Required: False

ResourceNotFoundException

404 response - MalformedQueryString. The query string contains a syntax error or resource not found.

message

Type: string
Required: True

Tag

A tag that you add to a resource.

Value

The value for a tag.

Type: string
Required: True
MaxLength: 256

Key

The key for a tag.

Type: string
Required: True
MinLength: 1
MaxLength: 128

TagResourceRequest

Request to tag a resource.

Tags

The tags associated with the resource.

Type: Array of type Tag (p. 97)

Required: True

TagResourceResponse

The result of a successful `TagResource` request.

UntagResourceResponse

The result of a successful `UntagResource` request.

ValidationException

400 response - Multiple causes. For example, you might have a malformed query string and input parameter might be out of range, or you might have used parameters together incorrectly.

message

Type: string
Required: True

See also

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

ListTagsForResource

- 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

TagResource

- 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

UntagResource

- 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

CLI Examples for the Recovery Control Configuration API

This section includes CLI examples for working with the APIs for Recovery Control Configuration with Amazon Route 53 Application Recovery Controller.

Application Recovery Controller is a global service that supports endpoints in multiple AWS Regions but you must specify the US West (Oregon) Region when you work with readiness and recovery control configuration resources.

Topics

- Create a cluster (p. 100)
- List clusters (p. 101)
- Describe a cluster (p. 101)
- Delete a cluster (p. 102)
- Create a control panel (p. 102)
- List control panels (p. 103)
- Describe a control panel (p. 103)
- Delete a control panel (p. 104)
- Create a routing control (p. 104)
- List routing controls (p. 104)
- Describe a routing control (p. 105)
- Delete a routing control (p. 105)
- Create safety rules (p. 106)
- List safety rules (p. 107)
- Describe a safety rule (p. 108)
- Delete a safety rule (p. 108)
- Get routing control state (p. 108)
- Update state for one routing control (p. 109)
- Update state for two routing controls at the same time, in a batch (p. 109)

Create a cluster

The following is an example of a request to create a cluster, and the response.

```
aws route53-recovery-control-config --region us-west-2 create-cluster --cluster-name
 NewCluster
```

```
{
    "Cluster": {
        "ClusterArn": "arn:aws:route53-recovery-control::012345678901:cluster/abc123456-
aa11-bb22-cc33-abc123456",
        "Name": "NewCluster",
        "Status": "PENDING"
    }
```

```
}
```

List clusters

The following is an example of a request to list the clusters in an account, and the response.

```
aws route53-recovery-control-config --region us-west-2 list-clusters
```

```
{
    "Clusters": [
        {
            "ClusterArn": "arn:aws:route53-recovery-control::012345678:cluster/1234abcd-
abcd-1234-abcd-1234abcdefgh",
            "ClusterEndpoints":[
                {"Endpoint": "https://host-aaaaaa.us-east-1.example.com/v1", "Region":"us-
east-1"},
                {"Endpoint": "https://host-bbbbbb.ap-southeast-2.example.com/v1",
 "Region":"ap-southeast-2"},
                {"Endpoint": "https://host-cccccc.eu-west-1.example.com/v1", "Region":"eu-
west-1"},
                {"Endpoint": "https://host-dddddd.us-west-2.example.com/v1", "Region":"us-
west-2"},
                {"Endpoint": "https://host-eeeeee.ap-northeast-1.example.com/v1",
 "Region":"ap-northeast-1"}
            ],
            "Name": "AnotherCluster",
            "Status": "DEPLOYED"
        },
        {
            "ClusterArn": "arn:aws:route53-recovery-control::012345678:cluster/5678abcd-
abcd-5678-abcd-5678abcdefgh",
            "ClusterEndpoints": [
                {"Endpoint": "https://host-ffffff.us-east-1.example.com/v1", "Region":"us-
east-1"},
                {"Endpoint": "https://host-gggggg.ap-southeast-2.example.com/v1",
 "Region":"ap-southeast-2"},
                {"Endpoint": "https://host-hhhhhh.eu-west-1.example.com/v1", "Region":"eu-
west-1"},
                {"Endpoint": "https://host-iiiiii.us-west-2.example.com/v1", "Region":"us-
west-2"},
                {"Endpoint": "https://host-jjjjjj.ap-northeast-1.example.com/v1",
 "Region":"ap-northeast-1"}
            ],
            "Name": "NewCluster",
            "Status": "DEPLOYED"
        }
    ]
}
```

Describe a cluster

The following is an example of a request to describe a cluster, and the response.

```
aws route53-recovery-control-config --region us-west-2 describe-cluster \
   --cluster-arn arn:aws:route53-recovery-control::012345678901:cluster/abc123456-aa11-
bb22-cc33-abc123456
```

```
{
    "Cluster":{
        "ClusterArn": "arn:aws:route53-recovery-control::012345678:cluster/5678abcd-
abcd-5678-abcd-5678abcdefgh",
        "ClusterEndpoints":[
            {"Endpoint": "https://host-aaaaaa.us-east-1.example.com", "Region":"us-
east-1"},
            {"Endpoint": "https://host-bbbbbb.ap-southeast-2.example.com", "Region":"ap-
southeast-2"},
            {"Endpoint": "https://host-cccccc.eu-west-1.example.com", "Region":"eu-
west-1"},
            {"Endpoint": "https://host-dddddd.us-west-2.example.com", "Region":"us-
west-2"},
            {"Endpoint": "https://host-eeeeee.ap-northeast-1.example.com", "Region":"ap-
northeast-1"}
        ]
        "Name": "NewCluster",
        "Status": "DEPLOYED"
    }
}
```

Delete a cluster

The following is an example of a request to delete a cluster. Deleting a cluster doesn't return a response.

```
aws route53-recovery-control-config --region us-west-2 delete-cluster \
   --cluster-arn arn:aws:route53-recovery-control::012345678901:cluster/abc123456-aa11-
bb22-cc33-abc123456
```

Create a control panel

A control panel is a logical grouping for organizing your Amazon Route 53 Application Recovery Controller routing controls. When you create a cluster, Amazon Route 53 Application Recovery Controller automatically provides a control panel for you called `DefaultControlPanel`. You can use this control panel right away.

Optionally, create your own control panel by calling `create-control-panel`. A control panel can only exist in one cluster. If you want to move a control panel to another cluster, you must delete it and then create it in the second cluster.

The following is an example of a request to create a control panel in a cluster, and the response.

```
aws route53-recovery-control-config --region us-west-2 create-control-panel \
   --control-panel-name NewControlPanel2 \
   --cluster-arn arn:aws:route53-recovery-control::012345678901:cluster/abc123456-aa11-
bb22-cc33-abc123456
```

```
{
    "ControlPanel": {
        "ControlPanelArn": "arn:aws:route53-recovery-control::012345678901:controlpanel/
d22190fdbfca4845804e3f76457d57c9",
        "ClusterArn": "arn:aws:route53-recovery-control::012345678901:cluster/abc123456-
aa11-bb22-cc33-abc123456",
        "DefaultControlPanel": false,
        "Name": "NewControlPanel2",
```

```
        "RoutingControlCount": 0,
        "Status": "PENDING"
    }
}
```

List control panels

A control panel is a logical grouping for organizing your Amazon Route 53 Application Recovery Controller routing controls. When you create a cluster, Amazon Route 53 Application Recovery Controller automatically provides a control panel for you called `DefaultControlPanel`. You can use this control panel right away.

You can see all of the control panels in your account by calling `list-control-panels`. To see just the control panels in a specific cluster, add the `--cluster-arn` field.

The following is an example of a request to list the control panels in your account, and the response.

```
aws route53-recovery-control-config --region us-west-2 list-control-panels \
   --cluster-arn arn:aws:route53-recovery-control::012345678901:cluster/abc123456-aa11-
bb22-cc33-abc123456
```

```
{
    "ControlPanels": [
        {
            "ControlPanelArn": "arn:aws:route53-recovery-
control::012345678901:controlpanel/zzz123yyy456xxx789zzz123yyy456xxx789",
            "ClusterArn": "arn:aws:route53-recovery-control::012345678901:cluster/
abc123456-aa11-bb22-cc33-abc123456",
            "DefaultControlPanel": true,
            "Name": "DefaultControlPanel",
            "RoutingControlCount": 0,
            "Status": "PENDING"
        },
        {
            "ControlPanelArn": "arn:aws:route53-recovery-
control::012345678901:controlpanel/aaa123bbb456ccc789aaa123bbb456ccc789",
            "ClusterArn": "arn:aws:route53-recovery-control::012345678901:cluster/
abc123456-aa11-bb22-cc33-abc123456",
            "DefaultControlPanel": false,
            "Name": "SecondControlPanel",
            "RoutingControlCount": 0,
            "Status": "PENDING"
        }
    ]
}
```

Describe a control panel

The following is an example of a request to describe a control panel, and the response.

```
aws route53-recovery-control-config --region us-west-2 describe-control-panel \
   --control-panel-arn arn:aws:route53-recovery-control::012345678901:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/5362908c4c734c2b
```

```
{
```

```
    "ControlPanel": {
        "ControlPanelArn": "arn:aws:route53-recovery-control::012345678901:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx",
        "ClusterArn": "arn:aws:route53-recovery-control::012345678901:cluster/a2002f8b-
e664-4671-bf4d-42e185241731",
        "DefaultControlPanel": true,
        "Name": "DefaultControlPanel",
        "RoutingControlCount": 3,
        "Status": "DEPLOYED"
    }
}
```

Delete a control panel

The following is an example of a request to delete a control panel. Deleting a control panel doesn't return a response.

```
aws route53-recovery-control-config --region us-west-2 delete-control-panel \
   --control-panel-arn arn:aws:route53-recovery-control::012345678901:controlpanel/
aaa123bbb456ccc789aaa123bbb456ccc789
```

Create a routing control

When you create a routing control, at a minimum you must specify the Amazon Resource Name (ARN) of the cluster that you want the routing control to be in. You can also specify the ARN of a control panel for the routing control. You'll also need to specify the cluster where the control panel is located.

If you don't specify a control panel, your routing control is added to the automatically created control panel, `DefaultControlPanel`.

The following is an example of a request to create a routing control in a control panel, and the response.

```
aws route53-recovery-control-config --region us-west-2 create-routing-control \
   --routing-control-name NewRc1 \
   --cluster-arn arn:aws:route53-recovery-control::888888888888:cluster/5678abcd-abcd-5678-
abcd-5678abcdefgh
```

```
{
    "RoutingControl": {
        "ControlPanelArn": " arn:aws:route53-recovery-
control::888888888888:controlpanel/0123456bbbbbbb0123456bbbbbb0123456",
        "Name": "NewRc1",
        "RoutingControlArn": "arn:aws:route53-recovery-
control::888888888888:controlpanel/0123456bbbbbbb0123456bbbbbb0123456/routingcontrol/
abcdefg1234567",
        "Status": "PENDING"
    }
}
```

List routing controls

The following is an example of a request to list the routing controls in a control panel, and the response.

```
aws route53-recovery-control-config --region us-west-2 list-routing-controls \
   --control-panel-arn arn:aws:route53-recovery-
control::888888888888:controlpanel/0123456bbbbbbb0123456bbbbbb0123456
```

```
{
    "RoutingControls": [
        {
            "ControlPanelArn": "arn:aws:route53-recovery-
control::888888888888:controlpanel/0123456bbbbbbb0123456bbbbbb0123456",
            "Name": "Rc1",
            "RoutingControlArn": "arn:aws:route53-recovery-
control::888888888888:controlpanel/0123456bbbbbbb0123456bbbbbb0123456/routingcontrol/
abcdefg1234567",
            "Status": "DEPLOYED"
        },
        {
            "ControlPanelArn": "arn:aws:route53-recovery-
control::888888888888:controlpanel/0123456bbbbbbb0123456bbbbbb0123456",
            "Name": "Rc2",
            "RoutingControlArn": "arn:aws:route53-recovery-
control::888888888888:controlpanel/0123456bbbbbbb0123456bbbbbb0123456/routingcontrol/
hijklmnop987654321",
            "Status": "DEPLOYED"
        }
    ]
}
```

Describe a routing control

The following is an example of a request to describe a routing control, and the response.

```
aws route53-recovery-control-config --region us-west-2 describe-routing-control \
   --routing-control-arn arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/def123def123def
```

```
{
    "RoutingControl": {
        "ControlPanelArn": "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx",
        "Name": "NewRc1",
        "RoutingControlArn": "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/def123def123def",
        "Status": "DEPLOYED"
    }
}
```

Delete a routing control

The following is an example of a request to delete a routing control. Deleting a routing control doesn't return a response.

```
aws route53-recovery-control-config --region us-west-2 delete-routing-control \
   --routing-control-arn arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/abc123abc123abc
```

Create safety rules

The following are examples of requests to create the two types of safety rules, assertion rules and gating rules, and the responses.

The following call provides an example of creating an assertion rule that makes sure that at least one of your routing controls is enabled at any given time.

```
aws route53-recovery-control-config --region us-west-2 create-safety-rule \
   --assertion-rule '{"Name": "TestAssertionRule", \
   "ControlPanelArn": "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx", \
   "WaitPeriodMs": 5000, \
   "AssertedControls": ["arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/def123def123def"], \
   "RuleConfig": {"Threshold": 1, "Type": "ATLEAST", "Inverted": false}} }'
```

```
{
    "Rule": {
        "ASSERTION": {
            "Arn": "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/safetyrule/333333444444",
            "AssertedControls": [
                "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/def123def123def"
            ],
            "ControlPanelArn": "arn:aws:route53-recovery-
control::888888888888:controlpanel/zzz123yyy456xxx789zzz123yyy456xxx",
            "Name": "TestAssertionRule",
            "RuleConfig": {
                "Inverted": false,
                "Threshold": 1,
                "Type": "ATLEAST"
            },
            "Status": "PENDING",
            "WaitPeriodMs": 5000
        }
    }
}
```

The following call provides an example of creating a gating rule that that acts as an overall "on/off" switch for a set of target routing controls in a control panel, to enable or disable the target routing controls from being turned on or off.

```
aws route53-recovery-control-config --region us-west-2 create-safety-rule \
   --gating-rule '{"Name": "TestGatingRule", \
   "ControlPanelArn": "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx", \
   "WaitPeriodMs": 5000, \
   "GatingControls": ["arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/def123def123def"], \
   "TargetControls": ["arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/ghi456ghi456ghi", \
    "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/lmn789lmn789lmn"], \
   "RuleConfig": {"Threshold": 0, "Type": "OR", "Inverted": false}} }'
```

```
{
    "Rule": {
        "GATING": {
            "Arn": "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/safetyrule/444444444444",
            "GatingControls": [
                "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/def123def123def"
            ],
            "TargetControls": [
                "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/ghi456ghi456ghi",
                "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/lmn789lmn789lmn"
            ],
            "ControlPanelArn": "arn:aws:route53-recovery-
control::888888888888:controlpanel/zzz123yyy456xxx789zzz123yyy456xxx",
            "Name": "TestGatingRule",
            "RuleConfig": {
                "Inverted": false,
                "Threshold": 0,
                "Type": "OR"
            },
            "Status": "PENDING",
            "WaitPeriodMs": 5000
        }
    }
}
```

List safety rules

The following is an example of a request to list the safety rules in a control panel, and the response.

```
aws route53-recovery-control-config --region us-west-2 list-safety-rules \
   --control-panel-arn arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx
```

```
{
    "SafetyRules": [
        {
            "ASSERTION": {
                "Arn": "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/safetyrule/333333444444",
                "AssertedControls": [
                    "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/def123def123def"
                ],
                "ControlPanelArn": "arn:aws:route53-recovery-
control::888888888888:controlpanel/zzz123yyy456xxx789zzz123yyy456xxx",
                "Name": "TestSafetyRule",
                "RuleConfig": {
                    "Inverted": false,
                    "Threshold": 1,
                    "Type": "ATLEAST"
                },
                "Status": "DEPLOYED",
                "WaitPeriodMs": 5000
            }
        }
```

```
    ]
}
```

Describe a safety rule

The following is an example of a request to describe a type of safety rule, and the response. This safety rule is an assertion rule.

```
aws route53-recovery-control-config --region us-west-2 describe-safety-rule \
   --safety-rule-arn arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/safetyrule/333333444444
```

```
{
    "SafetyRule": {
        "ASSERTION": {
            "Arn": "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/safetyrule/333333444444",
            "AssertedControls": [
                "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/abcdefg1234567"
            ],
            "ControlPanelArn": "arn:aws:route53-recovery-
control::888888888888:controlpanel/zzz123yyy456xxx789zzz123yyy456xxx",
            "Name": "TestSafetyRule",
            "RuleConfig": {
                "Inverted": false,
                "Threshold": 1,
                "Type": "ATLEAST"
            },
            "Status": "DEPLOYED",
            "WaitPeriodMs": 5000
        }
    }
}
```

Delete a safety rule

The following is an example of a request to delete a safety rule. Deleting a safety rule doesn't return a response.

```
aws route53-recovery-control-config --region us-west-2 delete-safety-rule \
   --safety-rule-arn arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/safetyrule/333333444444
```

Get routing control state

The following is an example of a request to get a routing control state, and the response.

For more information, see GetRoutingControlState in the Recovery Control Configuration API Reference Guide for Amazon Route 53 Application Recovery Controller.

```
aws route53-recovery-cluster get-routing-control-state \
   --routing-control-arn arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/abcdefg1234567 \
   --region us-west-2 \
   --endpoint-url https://host-dddddd.us-west-2.example.com/v1
```

```
{
    "RoutingControlArn": "arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/abcdefg1234567",
    "RoutingControlState": "On"
}
```

Update state for one routing control

The following is an example of a request to update a routing control state to be ON. Updating a routing control state doesn't return a response.

For more information, see UpdateRoutingControlState in the Recovery Control Configuration API Reference Guide for Amazon Route 53 Application Recovery Controller.

```
aws route53-recovery-cluster update-routing-control-state \
   --routing-control-arn arn:aws:route53-recovery-control::888888888888:controlpanel/
zzz123yyy456xxx789zzz123yyy456xxx/routingcontrol/abcdefg1234567 \
   --routing-control-state On \
   --region us-west-2 \
   --endpoint-url https://host-dddddd.us-west-2.example.com/v1
```

Update state for two routing controls at the same time, in a batch

The following is an example of a request to update two routing control states at the same time. It sets one to the state OFF and the other to the state ON. Updating routing control states with this command doesn't return a response.

For more information, see UpdateRoutingControlStates in the Recovery Control Configuration API Reference Guide for Amazon Route 53 Application Recovery Controller.

```
aws route53-recovery-cluster update-routing-control-states \
    --update-routing-control-state-entries \
    '[{"RoutingControlArn": "arn:aws:route53-recovery-
control::888888888888:controlpanel/0123456bbbbbbb0123456bbbbbb0123456/routingcontrol/
abcdefg1234567", \
    "RoutingControlState": "Off"}, \
    {"RoutingControlArn": "arn:aws:route53-recovery-
control::888888888888:controlpanel/0123456bbbbbbb0123456bbbbbb0123456/routingcontrol/
hijklmnop987654321", \
    "RoutingControlState": "On"}]' \
    --region us-west-2 \
    --endpoint-url https://host-dddddd.us-west-2.example.com/v1
```

Document history for the Recovery Control Configuration API Reference Guide for Amazon Route 53 Application Recovery Controller

The following table describes the documentation for this release of the Recovery Control Configuration API Reference Guide for Amazon Route 53 Application Recovery Controller.

- **API version: latest**
- **Latest documentation update:** July 27 2021

update-history-change	update-history-description	update-history-date

AWS glossary

For the latest AWS terminology, see the AWS glossary in the *AWS General Reference*.