AWS Shield Advanced API Reference

AWS Shield Advanced

API Version 2016-06-02

Copyright © 2026 Amazon Web Services, Inc. and/or its affiliates. All rights reserved.

AWS Shield Advanced: AWS Shield Advanced API Reference

Copyright © 2026 Amazon Web Services, Inc. and/or its affiliates. All rights reserved.

Amazon's trademarks and trade dress may not be used in connection with any product or service that is not Amazon's, in any manner that is likely to cause confusion among customers, or in any manner that disparages or discredits Amazon. All other trademarks not owned by Amazon are the property of their respective owners, who may or may not be affiliated with, connected to, or sponsored by Amazon.

Services or capabilities described in AWS documentation might vary by Region. To see the differences applicable to the AWS European Sovereign Cloud Region, see the AWS European Sovereign Cloud User Guide.

Table of Contents

Welcome **1**
Actions **2**
AssociateDRTLogBucket 4
Request Syntax 4
Request Parameters 4
Response Elements 4
Errors 5
See Also 6
AssociateDRTRole 8
Request Syntax 8
Request Parameters 8
Response Elements 9
Errors 9
See Also 10
AssociateHealthCheck 12
Request Syntax 12
Request Parameters 12
Response Elements 13
Errors 13
See Also 14
AssociateProactiveEngagementDetails 16
Request Syntax 16
Request Parameters 16
Response Elements 17
Errors 17
See Also 18
CreateProtection 20
Request Syntax 20
Request Parameters 20
Response Syntax 21
Response Elements 22
Errors 22
See Also 24
CreateProtectionGroup 25

Request Syntax 25
Request Parameters 25
Response Elements 27
Errors 27
See Also 29
CreateSubscription 30
Response Elements 30
Errors 30
See Also 31
DeleteProtection 32
Request Syntax 32
Request Parameters 32
Response Elements 32
Errors 32
See Also 33
DeleteProtectionGroup 34
Request Syntax 34
Request Parameters 34
Response Elements 34
Errors 34
See Also 35
DeleteSubscription 36
Response Elements 36
Errors 36
See Also 37
DescribeAttack 38
Request Syntax 38
Request Parameters 38
Response Syntax 38
Response Elements 40
Errors 40
See Also 41
DescribeAttackStatistics 42
Response Syntax 42
Response Elements 43
Errors 43

See Also ... 43
DescribeDRTAccess ... 45
Response Syntax ... 45
Response Elements ... 45
Errors ... 46
See Also ... 46
DescribeEmergencyContactSettings ... 47
Response Syntax ... 47
Response Elements ... 47
Errors ... 47
See Also ... 48
DescribeProtection ... 49
Request Syntax ... 49
Request Parameters ... 49
Response Syntax ... 50
Response Elements ... 50
Errors ... 50
See Also ... 51
DescribeProtectionGroup ... 53
Request Syntax ... 53
Request Parameters ... 53
Response Syntax ... 53
Response Elements ... 54
Errors ... 54
See Also ... 54
DescribeSubscription ... 56
Response Syntax ... 56
Response Elements ... 57
Errors ... 57
See Also ... 57
DisableApplicationLayerAutomaticResponse ... 59
Request Syntax ... 59
Request Parameters ... 59
Response Elements ... 59
Errors ... 59
See Also ... 60

DisableProactiveEngagement 62
Response Elements 62
Errors 62
See Also 63
DisassociateDRTLogBucket 64
Request Syntax 64
Request Parameters 64
Response Elements 64
Errors 64
See Also 65
DisassociateDRTRole 67
Response Elements 67
Errors 67
See Also 68
DisassociateHealthCheck 69
Request Syntax 69
Request Parameters 69
Response Elements 70
Errors 70
See Also 71
EnableApplicationLayerAutomaticResponse 72
Request Syntax 72
Request Parameters 73
Response Elements 73
Errors 73
See Also 75
EnableProactiveEngagement 76
Response Elements 76
Errors 76
See Also 77
GetSubscriptionState 78
Response Syntax 78
Response Elements 78
Errors 78
See Also 78
ListAttacks 80

Request Syntax ... 80
Request Parameters ... 80
Response Syntax ... 82
Response Elements ... 82
Errors ... 83
See Also ... 84
ListProtectionGroups ... 85
Request Syntax ... 85
Request Parameters ... 85
Response Syntax ... 86
Response Elements ... 87
Errors ... 87
See Also ... 88
ListProtections ... 90
Request Syntax ... 90
Request Parameters ... 90
Response Syntax ... 91
Response Elements ... 92
Errors ... 93
See Also ... 93
ListResourcesInProtectionGroup ... 95
Request Syntax ... 95
Request Parameters ... 95
Response Syntax ... 96
Response Elements ... 96
Errors ... 97
See Also ... 98
ListTagsForResource ... 99
Request Syntax ... 99
Request Parameters ... 99
Response Syntax ... 99
Response Elements ... 100
Errors ... 100
See Also ... 101
TagResource ... 102
Request Syntax ... 102

Request Parameters 102
Response Elements 103
Errors 103
See Also 104
UntagResource 105
Request Syntax 105
Request Parameters 105
Response Elements 106
Errors 106
See Also 107
UpdateApplicationLayerAutomaticResponse 108
Request Syntax 108
Request Parameters 108
Response Elements 109
Errors 109
See Also 110
UpdateEmergencyContactSettings 111
Request Syntax 111
Request Parameters 111
Response Elements 112
Errors 112
See Also 113
UpdateProtectionGroup 114
Request Syntax 114
Request Parameters 114
Response Elements 116
Errors 116
See Also 117
UpdateSubscription 118
Request Syntax 118
Request Parameters 118
Response Elements 119
Errors 119
See Also 120
Data Types 121
ApplicationLayerAutomaticResponseConfiguration 123

Contents ... 123
See Also ... 123
AttackDetail ... 124
Contents ... 124
See Also ... 125
AttackProperty ... 127
Contents ... 127
See Also ... 128
AttackStatisticsDataItem ... 129
Contents ... 129
See Also ... 129
AttackSummary ... 130
Contents ... 130
See Also ... 131
AttackVectorDescription ... 132
Contents ... 132
See Also ... 133
AttackVolume ... 134
Contents ... 134
See Also ... 134
AttackVolumeStatistics ... 136
Contents ... 136
See Also ... 136
BlockAction ... 137
Contents ... 137
See Also ... 137
Contributor ... 138
Contents ... 138
See Also ... 138
CountAction ... 139
Contents ... 139
See Also ... 139
EmergencyContact ... 140
Contents ... 140
See Also ... 141
InclusionProtectionFilters ... 142

Contents 142
See Also 143
InclusionProtectionGroupFilters 144
Contents 144
See Also 145
Limit 146
Contents 146
See Also 146
Mitigation 147
Contents 147
See Also 147
Protection 148
Contents 148
See Also 149
ProtectionGroup 150
Contents 150
See Also 152
ProtectionGroupArbitraryPatternLimits 153
Contents 153
See Also 153
ProtectionGroupLimits 154
Contents 154
See Also 154
ProtectionGroupPatternTypeLimits 155
Contents 155
See Also 155
ProtectionLimits 156
Contents 156
See Also 156
ResponseAction 157
Contents 157
See Also 157
SubResourceSummary 159
Contents 159
See Also 159
Subscription 161

Contents 161
See Also 163
SubscriptionLimits 164
Contents 164
See Also 164
SummarizedAttackVector 165
Contents 165
See Also 165
SummarizedCounter 166
Contents 166
See Also 167
Tag 168
Contents 168
See Also 168
TimeRange 170
Contents 170
See Also 170
ValidationExceptionField 171
Contents 171
See Also 171
Common Parameters 172
Common Error Types 175

Welcome

This is the *AWS Shield Advanced API Reference*. This guide is for developers who need detailed information about the AWS Shield Advanced API actions, data types, and errors. For detailed information about AWS WAF and AWS Shield Advanced features and an overview of how to use the AWS WAF and AWS Shield Advanced APIs, see the AWS WAF and AWS Shield Developer Guide.

This document was last published on October 15, 2026.

Actions

The following actions are supported:

- AssociateDRTLogBucket
- AssociateDRTRole
- AssociateHealthCheck
- AssociateProactiveEngagementDetails
- CreateProtection
- CreateProtectionGroup
- CreateSubscription
- DeleteProtection
- DeleteProtectionGroup
- DeleteSubscription
- DescribeAttack
- DescribeAttackStatistics
- DescribeDRTAccess
- DescribeEmergencyContactSettings
- DescribeProtection
- DescribeProtectionGroup
- DescribeSubscription
- DisableApplicationLayerAutomaticResponse
- DisableProactiveEngagement
- DisassociateDRTLogBucket
- DisassociateDRTRole
- DisassociateHealthCheck
- EnableApplicationLayerAutomaticResponse
- EnableProactiveEngagement
- GetSubscriptionState
- ListAttacks
- ListProtectionGroups

- ListProtections
- ListResourcesInProtectionGroup
- ListTagsForResource
- TagResource
- UntagResource
- UpdateApplicationLayerAutomaticResponse
- UpdateEmergencyContactSettings
- UpdateProtectionGroup
- UpdateSubscription

AssociateDRTLogBucket

Authorizes the Shield Response Team (SRT) to access the specified Amazon S3 bucket containing log data such as Application Load Balancer access logs, CloudFront logs, or logs from third party sources. You can associate up to 10 Amazon S3 buckets with your subscription.

Use this to share information with the SRT that's not available in AWS WAF logs.

To use the services of the SRT, you must be subscribed to the Business Support plan or the Enterprise Support plan.

Request Syntax

```
{
   "LogBucket": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

LogBucket

The Amazon S3 bucket that contains the logs that you want to share.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `^([a-z]|(\d(?!\d{0,2}\.\d{1,3}\.\d{1,3}\.\d{1,3})))([a-z\d]|(\.(?!(\.|-)))|(-(?!\.))){1,61}[a-z\d]$`

Required: Yes

Response Elements

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

Errors

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

AccessDeniedForDependencyException

In order to grant the necessary access to the Shield Response Team (SRT) the user submitting the request must have the `iam:PassRole` permission. This error indicates the user did not have the appropriate permissions. For more information, see Granting a User Permissions to Pass a Role to an AWS Service.

HTTP Status Code: 400

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidOperationException

Exception that indicates that the operation would not cause any change to occur.

HTTP Status Code: 400

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

LimitsExceededException

Exception that indicates that the operation would exceed a limit.

Limit

The threshold that would be exceeded.

Type

The type of limit that would be exceeded.

HTTP Status Code: 400

NoAssociatedRoleException

The ARN of the role that you specified does not exist.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin

- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

AssociateDRTRole

Authorizes the Shield Response Team (SRT) using the specified role, to access your AWS account to assist with DDoS attack mitigation during potential attacks. This enables the SRT to inspect your AWS WAF configuration and logs and to create or update AWS WAF rules and web ACLs.

You can associate only one `RoleArn` with your subscription. If you submit this update for an account that already has an associated role, the new `RoleArn` will replace the existing `RoleArn`.

This change requires the following:

- You must be subscribed to the Business Support plan or the Enterprise Support plan.
- The `AWSShieldDRTAccessPolicy` managed policy must be attached to the role that you specify in the request. You can access this policy in the IAM console at AWSShieldDRTAccessPolicy. For information, see Adding and removing IAM identity permissions.
- The role must trust the service principal `drt.shield.amazonaws.com`. For information, see IAM JSON policy elements: Principal.

The SRT will have access only to your AWS WAF and Shield resources. By submitting this request, you provide permissions to the SRT to inspect your AWS WAF and Shield configuration and logs, and to create and update AWS WAF rules and web ACLs on your behalf. The SRT takes these actions only if explicitly authorized by you.

Request Syntax

```
{
   "RoleArn": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

RoleArn

The Amazon Resource Name (ARN) of the role the SRT will use to access your AWS account.

Prior to making the `AssociateDRTRole` request, you must attach the AWSShieldDRTAccessPolicy. managed policy to this role. For more information see Attaching and Detaching IAM Policies.

Type: String

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

Pattern: `^arn:aws:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@\-_/]+`

Required: Yes

Response Elements

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

Errors

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

AccessDeniedForDependencyException

In order to grant the necessary access to the Shield Response Team (SRT) the user submitting the request must have the `iam:PassRole` permission. This error indicates the user did not have the appropriate permissions. For more information, see Granting a User Permissions to Pass a Role to an AWS Service.

HTTP Status Code: 400

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidOperationException

Exception that indicates that the operation would not cause any change to occur.

HTTP Status Code: 400

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

AssociateHealthCheck

Adds health-based detection to the Shield Advanced protection for a resource. Shield Advanced health-based detection uses the health of your AWS resource to improve responsiveness and accuracy in attack detection and response.

You define the health check in Route 53 and then associate it with your Shield Advanced protection. For more information, see Configuring health-based detection using health checks in the *AWS WAF Developer Guide* and Creating, updating, and deleting health checks in the *Amazon Route 53 Developer Guide*.

Request Syntax

```
{
   "HealthCheckArn": "string",
   "ProtectionId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

HealthCheckArn

The Amazon Resource Name (ARN) of the health check to associate with the protection.

Type: String

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

Pattern: `^arn:aws:route53:::healthcheck/\S{36}$`

Required: Yes

ProtectionId

The unique identifier (ID) for the Protection object to add the health check association to.

Type: String

Length Constraints: Fixed length of 36.

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

Required: Yes

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

InvalidResourceException

Exception that indicates that the resource is invalid. You might not have access to the resource, or the resource might not exist.

HTTP Status Code: 400

LimitsExceededException

Exception that indicates that the operation would exceed a limit.

Limit

The threshold that would be exceeded.

Type

The type of limit that would be exceeded.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3

- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

AssociateProactiveEngagementDetails

Initializes proactive engagement and sets the list of contacts for the Shield Response Team (SRT) to use. You must provide at least one phone number in the emergency contact list.

After you have initialized proactive engagement using this call, to disable or enable proactive engagement, use the calls `DisableProactiveEngagement` and `EnableProactiveEngagement`.

> **Note**
>
> This call defines the list of email addresses and phone numbers that the SRT can use to contact you for escalations to the SRT and to initiate proactive customer support. The contacts that you provide in the request replace any contacts that were already defined. If you already have contacts defined and want to use them, retrieve the list using `DescribeEmergencyContactSettings` and then provide it to this call.

Request Syntax

```
{
   "EmergencyContactList": [
      {
         "ContactNotes": "string",
         "EmailAddress": "string",
         "PhoneNumber": "string"
      }
   ]
}
```

Request Parameters

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

The request accepts the following data in JSON format.

EmergencyContactList

A list of email addresses and phone numbers that the Shield Response Team (SRT) can use to contact you for escalations to the SRT and to initiate proactive customer support.

To enable proactive engagement, the contact list must include at least one phone number.

> **Note**
>
> The contacts that you provide here replace any contacts that were already defined. If you already have contacts defined and want to use them, retrieve the list using `DescribeEmergencyContactSettings` and then provide it here.

Type: Array of EmergencyContact objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: Yes

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidOperationException

Exception that indicates that the operation would not cause any change to occur.

HTTP Status Code: 400

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

CreateProtection

Enables AWS Shield Advanced for a specific AWS resource. The resource can be an Amazon CloudFront distribution, Amazon Route 53 hosted zone, AWS Global Accelerator standard accelerator, Elastic IP Address, Application Load Balancer, or a Classic Load Balancer. You can protect Amazon EC2 instances and Network Load Balancers by association with protected Amazon EC2 Elastic IP addresses.

You can add protection to only a single resource with each `CreateProtection` request. You can add protection to multiple resources at once through the Shield Advanced console. For more information see Getting Started with AWS Shield Advanced and Managing resource protections in AWS Shield Advanced.

Request Syntax

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

Request Parameters

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

The request accepts the following data in JSON format.

Name

Friendly name for the `Protection` you are creating.

Type: String

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

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

Required: Yes

ResourceArn

The ARN (Amazon Resource Name) of the resource to be protected.

The ARN should be in one of the following formats:

- For an Application Load Balancer: `arn:aws:elasticloadbalancing:`*`region`*`:`*`account-id`*`:loadbalancer/app/`*`load-balancer-name/load-balancer-id`*
- For an Elastic Load Balancer (Classic Load Balancer): `arn:aws:elasticloadbalancing:`*`region`*`:`*`account-id`*`:loadbalancer/`*`load-balancer-name`*
- For an Amazon CloudFront distribution: `arn:aws:cloudfront::`*`account-id`*`:distribution/`*`distribution-id`*
- For an AWS Global Accelerator standard accelerator: `arn:aws:globalaccelerator::`*`account-id`*`:accelerator/`*`accelerator-id`*
- For Amazon Route 53: `arn:aws:route53:::hostedzone/`*`hosted-zone-id`*
- For an Elastic IP address: `arn:aws:ec2:`*`region`*`:`*`account-id`*`:eip-allocation/`*`allocation-id`*

Type: String

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

Pattern: `^arn:aws.*`

Required: Yes

Tags

One or more tag key-value pairs for the Protection object that is created.

Type: Array of Tag objects

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

Required: No

Response Syntax

```
{
```

```
    "ProtectionId": "string"
}
```

Response Elements

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

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

ProtectionId

The unique identifier (ID) for the Protection object that is created.

Type: String

Length Constraints: Fixed length of 36.

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidOperationException

Exception that indicates that the operation would not cause any change to occur.

HTTP Status Code: 400

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

InvalidResourceException

Exception that indicates that the resource is invalid. You might not have access to the resource, or the resource might not exist.

HTTP Status Code: 400

LimitsExceededException

Exception that indicates that the operation would exceed a limit.

Limit

The threshold that would be exceeded.

Type

The type of limit that would be exceeded.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceAlreadyExistsException

Exception indicating the specified resource already exists. If available, this exception includes details in additional properties.

resourceType

The type of resource that already exists.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

CreateProtectionGroup

Creates a grouping of protected resources so they can be handled as a collective. This resource grouping improves the accuracy of detection and reduces false positives.

Request Syntax

```
{
   "Aggregation": "string",
   "Members": [ "string" ],
   "Pattern": "string",
   "ProtectionGroupId": "string",
   "ResourceType": "string",
   "Tags": [
      {
         "Key": "string",
         "Value": "string"
      }
   ]
}
```

Request Parameters

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

The request accepts the following data in JSON format.

Aggregation

Defines how AWS Shield combines resource data for the group in order to detect, mitigate, and report events.

- Sum - Use the total traffic across the group. This is a good choice for most cases. Examples include Elastic IP addresses for EC2 instances that scale manually or automatically.
- Mean - Use the average of the traffic across the group. This is a good choice for resources that share traffic uniformly. Examples include accelerators and load balancers.
- Max - Use the highest traffic from each resource. This is useful for resources that don't share traffic and for resources that share that traffic in a non-uniform way. Examples include Amazon CloudFront and origin resources for CloudFront distributions.

Type: String

Valid Values: `SUM | MEAN | MAX`

Required: Yes

Members

The Amazon Resource Names (ARNs) of the resources to include in the protection group. You must set this when you set `Pattern` to `ARBITRARY` and you must not set it for any other `Pattern` setting.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 10000 items.

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

Pattern: `^arn:aws.*`

Required: No

Pattern

The criteria to use to choose the protected resources for inclusion in the group. You can include all resources that have protections, provide a list of resource Amazon Resource Names (ARNs), or include all resources of a specified resource type.

Type: String

Valid Values: `ALL | ARBITRARY | BY_RESOURCE_TYPE`

Required: Yes

ProtectionGroupId

The name of the protection group. You use this to identify the protection group in lists and to manage the protection group, for example to update, delete, or describe it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

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

Required: Yes

ResourceType

The resource type to include in the protection group. All protected resources of this type are included in the protection group. Newly protected resources of this type are automatically added to the group. You must set this when you set `Pattern` to `BY_RESOURCE_TYPE` and you must not set it for any other `Pattern` setting.

Type: String

Valid Values: `CLOUDFRONT_DISTRIBUTION | ROUTE_53_HOSTED_ZONE | ELASTIC_IP_ALLOCATION | CLASSIC_LOAD_BALANCER | APPLICATION_LOAD_BALANCER | GLOBAL_ACCELERATOR`

Required: No

Tags

One or more tag key-value pairs for the protection group.

Type: Array of Tag objects

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

Required: No

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

LimitsExceededException

Exception that indicates that the operation would exceed a limit.

Limit

The threshold that would be exceeded.

Type

The type of limit that would be exceeded.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceAlreadyExistsException

Exception indicating the specified resource already exists. If available, this exception includes details in additional properties.

resourceType

The type of resource that already exists.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

CreateSubscription

Activates AWS Shield Advanced for an account.

> **Note**
>
> For accounts that are members of an AWS Organizations organization, Shield Advanced subscriptions are billed against the organization's payer account, regardless of whether the payer account itself is subscribed.

When you initially create a subscription, your subscription is set to be automatically renewed at the end of the existing subscription period. You can change this by submitting an `UpdateSubscription` request.

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

ResourceAlreadyExistsException

Exception indicating the specified resource already exists. If available, this exception includes details in additional properties.

resourceType

The type of resource that already exists.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

DeleteProtection

Deletes an AWS Shield Advanced Protection.

Request Syntax

```
{
   "ProtectionId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

ProtectionId

The unique identifier (ID) for the Protection object to be deleted.

Type: String

Length Constraints: Fixed length of 36.

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

Required: Yes

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

DeleteProtectionGroup

Removes the specified protection group.

Request Syntax

```
{
   "ProtectionGroupId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

ProtectionGroupId

The name of the protection group. You use this to identify the protection group in lists and to manage the protection group, for example to update, delete, or describe it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

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

Required: Yes

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

DeleteSubscription

This action has been deprecated.

Removes AWS Shield Advanced from an account. AWS Shield Advanced requires a 1-year subscription commitment. You cannot delete a subscription prior to the completion of that commitment.

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

LockedSubscriptionException

You are trying to update a subscription that has not yet completed the 1-year commitment. You can change the `AutoRenew` parameter during the last 30 days of your subscription. This exception indicates that you are attempting to change `AutoRenew` prior to that period.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

DescribeAttack

Describes the details of a DDoS attack.

Request Syntax

```
{
   "AttackId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

AttackId

The unique identifier (ID) for the attack.

Type: String

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

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

Required: Yes

Response Syntax

```
{
   "Attack": {
      "AttackCounters": [
         {
            "Average": number,
            "Max": number,
            "N": number,
            "Name": "string",
            "Sum": number,
            "Unit": "string"
         }
      ],
```

```
        "AttackId": "string",
        "AttackProperties": [
           {
              "AttackLayer": "string",
              "AttackPropertyIdentifier": "string",
              "TopContributors": [
                 {
                    "Name": "string",
                    "Value": number
                 }
              ],
              "Total": number,
              "Unit": "string"
           }
        ],
        "EndTime": number,
        "Mitigations": [
           {
              "MitigationName": "string"
           }
        ],
        "ResourceArn": "string",
        "StartTime": number,
        "SubResources": [
           {
              "AttackVectors": [
                 {
                    "VectorCounters": [
                       {
                          "Average": number,
                          "Max": number,
                          "N": number,
                          "Name": "string",
                          "Sum": number,
                          "Unit": "string"
                       }
                    ],
                    "VectorType": "string"
                 }
              ],
              "Counters": [
                 {
                    "Average": number,
                    "Max": number,
```

```
                    "N": number,
                    "Name": "string",
                    "Sum": number,
                    "Unit": "string"
                }
            ],
            "Id": "string",
            "Type": "string"
        }
    ]
  }
}
```

Response Elements

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

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

Attack

The attack that you requested.

Type: AttackDetail object

Errors

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

AccessDeniedException

Exception that indicates the specified `AttackId` does not exist, or the requester does not have the appropriate permissions to access the `AttackId`.

HTTP Status Code: 400

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

DescribeAttackStatistics

Provides information about the number and type of attacks AWS Shield has detected in the last year for all resources that belong to your account, regardless of whether you've defined Shield protections for them. This operation is available to Shield customers as well as to Shield Advanced customers.

The operation returns data for the time range of midnight UTC, one year ago, to midnight UTC, today. For example, if the current time is `2020-10-26 15:39:32` PDT, equal to `2020-10-26 22:39:32` UTC, then the time range for the attack data returned is from `2019-10-26 00:00:00` UTC to `2020-10-26 00:00:00` UTC.

The time range indicates the period covered by the attack statistics data items.

Response Syntax

```
{
   "DataItems": [
      {
         "AttackCount": number,
         "AttackVolume": {
            "BitsPerSecond": {
               "Max": number
            },
            "PacketsPerSecond": {
               "Max": number
            },
            "RequestsPerSecond": {
               "Max": number
            }
         }
      }
   ],
   "TimeRange": {
      "FromInclusive": number,
      "ToExclusive": number
   }
}
```

Response Elements

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

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

DataItems

The data that describes the attacks detected during the time period.

Type: Array of AttackStatisticsDataItem objects

TimeRange

The time range of the attack.

Type: TimeRange object

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

DescribeDRTAccess

Returns the current role and list of Amazon S3 log buckets used by the Shield Response Team (SRT) to access your AWS account while assisting with attack mitigation.

Response Syntax

```
{
   "LogBucketList": [ "string" ],
   "RoleArn": "string"
}
```

Response Elements

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

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

LogBucketList

The list of Amazon S3 buckets accessed by the SRT.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `^([a-z]|(\d(?!\d{0,2}\.\d{1,3}\.\d{1,3}\.\d{1,3})))([a-z\d]|(\.(?!(\.|-)))|(-(?!\.))){1,61}[a-z\d]$`

RoleArn

The Amazon Resource Name (ARN) of the role the SRT used to access your AWS account.

Type: String

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

Pattern: `^arn:aws:iam::\d{12}:role/?[a-zA-Z_0-9+=,.@\-_/]+`

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

DescribeEmergencyContactSettings

A list of email addresses and phone numbers that the Shield Response Team (SRT) can use to contact you if you have proactive engagement enabled, for escalations to the SRT and to initiate proactive customer support.

Response Syntax

```
{
   "EmergencyContactList": [
      {
         "ContactNotes": "string",
         "EmailAddress": "string",
         "PhoneNumber": "string"
      }
   ]
}
```

Response Elements

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

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

EmergencyContactList

A list of email addresses and phone numbers that the Shield Response Team (SRT) can use to contact you if you have proactive engagement enabled, for escalations to the SRT and to initiate proactive customer support.

Type: Array of EmergencyContact objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

DescribeProtection

Lists the details of a Protection object.

Request Syntax

```
{
   "ProtectionId": "string",
   "ResourceArn": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

ProtectionId

The unique identifier (ID) for the Protection object to describe. You must provide either the `ResourceArn` of the protected resource or the `ProtectionID` of the protection, but not both.

Type: String

Length Constraints: Fixed length of 36.

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

Required: No

ResourceArn

The ARN (Amazon Resource Name) of the protected AWS resource. You must provide either the `ResourceArn` of the protected resource or the `ProtectionID` of the protection, but not both.

Type: String

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

Pattern: `^arn:aws.*`

Required: No

Response Syntax

```
{
   "Protection": {
      "ApplicationLayerAutomaticResponseConfiguration": {
         "Action": {
            "Block": {
            },
            "Count": {
            }
         },
         "Status": "string"
      },
      "HealthCheckIds": [ "string" ],
      "Id": "string",
      "Name": "string",
      "ProtectionArn": "string",
      "ResourceArn": "string"
   }
}
```

Response Elements

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

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

Protection

The Protection that you requested.

Type: Protection object

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)

- AWS SDK for Ruby V3

DescribeProtectionGroup

Returns the specification for the specified protection group.

Request Syntax

```
{
   "ProtectionGroupId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

ProtectionGroupId

The name of the protection group. You use this to identify the protection group in lists and to manage the protection group, for example to update, delete, or describe it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

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

Required: Yes

Response Syntax

```
{
   "ProtectionGroup": {
      "Aggregation": "string",
      "Members": [ "string" ],
      "Pattern": "string",
      "ProtectionGroupArn": "string",
      "ProtectionGroupId": "string",
      "ResourceType": "string"
   }
```

```
}
```

Response Elements

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

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

ProtectionGroup

A grouping of protected resources that you and AWS Shield Advanced can monitor as a collective. This resource grouping improves the accuracy of detection and reduces false positives.

Type: ProtectionGroup object

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

DescribeSubscription

Provides details about the AWS Shield Advanced subscription for an account.

Response Syntax

```
{
   "Subscription": {
      "AutoRenew": "string",
      "EndTime": number,
      "Limits": [
         {
            "Max": number,
            "Type": "string"
         }
      ],
      "ProactiveEngagementStatus": "string",
      "StartTime": number,
      "SubscriptionArn": "string",
      "SubscriptionLimits": {
         "ProtectionGroupLimits": {
            "MaxProtectionGroups": number,
            "PatternTypeLimits": {
               "ArbitraryPatternLimits": {
                  "MaxMembers": number
               }
            }
         },
         "ProtectionLimits": {
            "ProtectedResourceTypeLimits": [
               {
                  "Max": number,
                  "Type": "string"
               }
            ]
         }
      },
      "TimeCommitmentInSeconds": number
   }
}
```

Response Elements

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

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

Subscription

The AWS Shield Advanced subscription details for an account.

Type: Subscription object

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4

- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

DisableApplicationLayerAutomaticResponse

Disable the Shield Advanced automatic application layer DDoS mitigation feature for the protected resource. This stops Shield Advanced from creating, verifying, and applying AWS WAF rules for attacks that it detects for the resource.

Request Syntax

```
{
   "ResourceArn": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

ResourceArn

The ARN (Amazon Resource Name) of the protected resource.

Type: String

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

Pattern: `^arn:aws.*`

Required: Yes

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidOperationException

Exception that indicates that the operation would not cause any change to occur.

HTTP Status Code: 400

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

DisableProactiveEngagement

Removes authorization from the Shield Response Team (SRT) to notify contacts about escalations to the SRT and to initiate proactive customer support.

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidOperationException

Exception that indicates that the operation would not cause any change to occur.

HTTP Status Code: 400

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

DisassociateDRTLogBucket

Removes the Shield Response Team's (SRT) access to the specified Amazon S3 bucket containing the logs that you shared previously.

Request Syntax

```
{
   "LogBucket": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

LogBucket

The Amazon S3 bucket that contains the logs that you want to share.

Type: String

Length Constraints: Minimum length of 3. Maximum length of 63.

Pattern: `^([a-z]|(\d(?!\d{0,2}\.\d{1,3}\.\d{1,3}\.\d{1,3})))([a-z\d]|(\.(?!(\.|-)))|(-(?!\.))){1,61}[a-z\d]$`

Required: Yes

Response Elements

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

Errors

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

AccessDeniedForDependencyException

In order to grant the necessary access to the Shield Response Team (SRT) the user submitting the request must have the `iam:PassRole` permission. This error indicates the user did not have

the appropriate permissions. For more information, see Granting a User Permissions to Pass a Role to an AWS Service.

HTTP Status Code: 400

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidOperationException

Exception that indicates that the operation would not cause any change to occur.

HTTP Status Code: 400

NoAssociatedRoleException

The ARN of the role that you specified does not exist.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

DisassociateDRTRole

Removes the Shield Response Team's (SRT) access to your AWS account.

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidOperationException

Exception that indicates that the operation would not cause any change to occur.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

DisassociateHealthCheck

Removes health-based detection from the Shield Advanced protection for a resource. Shield Advanced health-based detection uses the health of your AWS resource to improve responsiveness and accuracy in attack detection and response.

You define the health check in Route 53 and then associate or disassociate it with your Shield Advanced protection. For more information, see Configuring health-based detection using health checks in the *AWS WAF Developer Guide* and Creating, updating, and deleting health checks in the *Amazon Route 53 Developer Guide*.

Request Syntax

```
{
   "HealthCheckArn": "string",
   "ProtectionId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

HealthCheckArn

The Amazon Resource Name (ARN) of the health check that is associated with the protection.

Type: String

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

Pattern: `^arn:aws:route53:::healthcheck/\S{36}$`

Required: Yes

ProtectionId

The unique identifier (ID) for the Protection object to remove the health check association from.

Type: String

Length Constraints: Fixed length of 36.

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

Required: Yes

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

InvalidResourceException

Exception that indicates that the resource is invalid. You might not have access to the resource, or the resource might not exist.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

EnableApplicationLayerAutomaticResponse

Enable the Shield Advanced automatic application layer DDoS mitigation for the protected resource.

> **Note**
>
> This feature is available for Amazon CloudFront distributions and Application Load Balancers only.

This causes Shield Advanced to create, verify, and apply AWS WAF rules for DDoS attacks that it detects for the resource. Shield Advanced applies the rules in a Shield rule group inside the web ACL that you've associated with the resource. For information about how automatic mitigation works and the requirements for using it, see AWS Shield Advanced automatic application layer DDoS mitigation.

> **Note**
>
> Don't use this action to make changes to automatic mitigation settings when it's already enabled for a resource. Instead, use UpdateApplicationLayerAutomaticResponse.

To use this feature, you must associate a web ACL with the protected resource. The web ACL must be created using the latest version of AWS WAF (v2). You can associate the web ACL through the Shield Advanced console. For more information, see Getting Started with AWS Shield Advanced. You can also associate the web ACL to the resource through the AWS WAF console or the AWS WAF API, but you must manage Shield Advanced automatic mitigation through Shield Advanced. For information about AWS WAF, see AWS WAF Developer Guide.

Request Syntax

```
{
   "Action": {
      "Block": {
      },
      "Count": {
      }
```

```
    },
    "ResourceArn": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

Action

Specifies the action setting that Shield Advanced should use in the AWS WAF rules that it creates on behalf of the protected resource in response to DDoS attacks. You specify this as part of the configuration for the automatic application layer DDoS mitigation feature, when you enable or update automatic mitigation. Shield Advanced creates the AWS WAF rules in a Shield Advanced-managed rule group, inside the web ACL that you have associated with the resource.

Type: ResponseAction object

Required: Yes

ResourceArn

The ARN (Amazon Resource Name) of the protected resource.

Type: String

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

Pattern: `^arn:aws.*`

Required: Yes

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidOperationException

Exception that indicates that the operation would not cause any change to occur.

HTTP Status Code: 400

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

LimitsExceededException

Exception that indicates that the operation would exceed a limit.

Limit

The threshold that would be exceeded.

Type

The type of limit that would be exceeded.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

EnableProactiveEngagement

Authorizes the Shield Response Team (SRT) to use email and phone to notify contacts about escalations to the SRT and to initiate proactive customer support.

To enable proactive engagement, you must be subscribed to the Business Support plan or the Enterprise Support plan.

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidOperationException

Exception that indicates that the operation would not cause any change to occur.

HTTP Status Code: 400

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

GetSubscriptionState

Returns the `SubscriptionState`, either `Active` or `Inactive`.

Response Syntax

```
{
   "SubscriptionState": "string"
}
```

Response Elements

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

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

SubscriptionState

The status of the subscription.

Type: String

Valid Values: `ACTIVE | INACTIVE`

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

ListAttacks

Returns all ongoing DDoS attacks or all DDoS attacks during a specified time period.

Request Syntax

```
{
   "EndTime": {
      "FromInclusive": number,
      "ToExclusive": number
   },
   "MaxResults": number,
   "NextToken": "string",
   "ResourceArns": [ "string" ],
   "StartTime": {
      "FromInclusive": number,
      "ToExclusive": number
   }
}
```

Request Parameters

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

The request accepts the following data in JSON format.

EndTime

The end of the time period for the attacks. This is a `timestamp` type. The request syntax listing for this call indicates a `number` type, but you can provide the time in any valid timestamp format setting.

Type: TimeRange object

Required: No

MaxResults

The greatest number of objects that you want Shield Advanced to return to the list request. Shield Advanced might return fewer objects than you indicate in this setting, even if more objects are available. If there are more objects remaining, Shield Advanced will always also return a `NextToken` value in the response.

The default setting is 20.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10000.

Required: No

NextToken

When you request a list of objects from AWS Shield Advanced, if the response does not include all of the remaining available objects, Shield Advanced includes a `NextToken` value in the response. You can retrieve the next batch of objects by requesting the list again and providing the token that was returned by the prior call in your request.

You can indicate the maximum number of objects that you want Shield Advanced to return for a single call with the `MaxResults` setting. Shield Advanced will not return more than `MaxResults` objects, but may return fewer, even if more objects are still available.

Whenever more objects remain that Shield Advanced has not yet returned to you, the response will include a `NextToken` value.

On your first call to a list operation, leave this setting empty.

Type: String

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

Pattern: `^.*$`

Required: No

ResourceArns

The ARNs (Amazon Resource Names) of the resources that were attacked. If you leave this blank, all applicable resources for this account will be included.

Type: Array of strings

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

Pattern: `^arn:aws.*`

Required: No

StartTime

The start of the time period for the attacks. This is a `timestamp` type. The request syntax listing for this call indicates a `number` type, but you can provide the time in any valid timestamp format setting.

Type: TimeRange object

Required: No

Response Syntax

```
{
   "AttackSummaries": [
      {
         "AttackId": "string",
         "AttackVectors": [
            {
               "VectorType": "string"
            }
         ],
         "EndTime": number,
         "ResourceArn": "string",
         "StartTime": number
      }
   ],
   "NextToken": "string"
}
```

Response Elements

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

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

AttackSummaries

The attack information for the specified time range.

Type: Array of AttackSummary objects

NextToken

When you request a list of objects from AWS Shield Advanced, if the response does not include all of the remaining available objects, Shield Advanced includes a `NextToken` value in the response. You can retrieve the next batch of objects by requesting the list again and providing the token that was returned by the prior call in your request.

You can indicate the maximum number of objects that you want Shield Advanced to return for a single call with the `MaxResults` setting. Shield Advanced will not return more than `MaxResults` objects, but may return fewer, even if more objects are still available.

Whenever more objects remain that Shield Advanced has not yet returned to you, the response will include a `NextToken` value.

Type: String

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

Pattern: `^.*$`

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidOperationException

Exception that indicates that the operation would not cause any change to occur.

HTTP Status Code: 400

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

ListProtectionGroups

Retrieves ProtectionGroup objects for the account. You can retrieve all protection groups or you can provide filtering criteria and retrieve just the subset of protection groups that match the criteria.

Request Syntax

```
{
   "InclusionFilters": {
      "Aggregations": [ "string" ],
      "Patterns": [ "string" ],
      "ProtectionGroupIds": [ "string" ],
      "ResourceTypes": [ "string" ]
   },
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

InclusionFilters

Narrows the set of protection groups that the call retrieves. You can retrieve a single protection group by its name and you can retrieve all protection groups that are configured with specific pattern or aggregation settings. You can provide up to one criteria per filter type. Shield Advanced returns the protection groups that exactly match all of the search criteria that you provide.

Type: InclusionProtectionGroupFilters object

Required: No

MaxResults

The greatest number of objects that you want Shield Advanced to return to the list request. Shield Advanced might return fewer objects than you indicate in this setting, even if more

objects are available. If there are more objects remaining, Shield Advanced will always also return a `NextToken` value in the response.

The default setting is 20.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10000.

Required: No

NextToken

When you request a list of objects from AWS Shield Advanced, if the response does not include all of the remaining available objects, Shield Advanced includes a `NextToken` value in the response. You can retrieve the next batch of objects by requesting the list again and providing the token that was returned by the prior call in your request.

You can indicate the maximum number of objects that you want Shield Advanced to return for a single call with the `MaxResults` setting. Shield Advanced will not return more than `MaxResults` objects, but may return fewer, even if more objects are still available.

Whenever more objects remain that Shield Advanced has not yet returned to you, the response will include a `NextToken` value.

On your first call to a list operation, leave this setting empty.

Type: String

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

Pattern: `^.*$`

Required: No

Response Syntax

```
{
   "NextToken": "string",
   "ProtectionGroups": [
      {
         "Aggregation": "string",
         "Members": [ "string" ],
```

```
            "Pattern": "string",
            "ProtectionGroupArn": "string",
            "ProtectionGroupId": "string",
            "ResourceType": "string"
        }
    ]
}
```

Response Elements

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

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

NextToken

When you request a list of objects from AWS Shield Advanced, if the response does not include all of the remaining available objects, Shield Advanced includes a `NextToken` value in the response. You can retrieve the next batch of objects by requesting the list again and providing the token that was returned by the prior call in your request.

You can indicate the maximum number of objects that you want Shield Advanced to return for a single call with the `MaxResults` setting. Shield Advanced will not return more than `MaxResults` objects, but may return fewer, even if more objects are still available.

Whenever more objects remain that Shield Advanced has not yet returned to you, the response will include a `NextToken` value.

Type: String

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

Pattern: `^.*$`

ProtectionGroups

Type: Array of ProtectionGroup objects

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidPaginationTokenException

Exception that indicates that the `NextToken` specified in the request is invalid. Submit the request using the `NextToken` value that was returned in the prior response.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

ListProtections

Retrieves Protection objects for the account. You can retrieve all protections or you can provide filtering criteria and retrieve just the subset of protections that match the criteria.

Request Syntax

```
{
   "InclusionFilters": {
      "ProtectionNames": [ "string" ],
      "ResourceArns": [ "string" ],
      "ResourceTypes": [ "string" ]
   },
   "MaxResults": number,
   "NextToken": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

InclusionFilters

Narrows the set of protections that the call retrieves. You can retrieve a single protection by providing its name or the ARN (Amazon Resource Name) of its protected resource. You can also retrieve all protections for a specific resource type. You can provide up to one criteria per filter type. Shield Advanced returns protections that exactly match all of the filter criteria that you provide.

Type: InclusionProtectionFilters object

Required: No

MaxResults

The greatest number of objects that you want Shield Advanced to return to the list request. Shield Advanced might return fewer objects than you indicate in this setting, even if more objects are available. If there are more objects remaining, Shield Advanced will always also return a `NextToken` value in the response.

The default setting is 20.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10000.

Required: No

NextToken

When you request a list of objects from AWS Shield Advanced, if the response does not include all of the remaining available objects, Shield Advanced includes a `NextToken` value in the response. You can retrieve the next batch of objects by requesting the list again and providing the token that was returned by the prior call in your request.

You can indicate the maximum number of objects that you want Shield Advanced to return for a single call with the `MaxResults` setting. Shield Advanced will not return more than `MaxResults` objects, but may return fewer, even if more objects are still available.

Whenever more objects remain that Shield Advanced has not yet returned to you, the response will include a `NextToken` value.

On your first call to a list operation, leave this setting empty.

Type: String

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

Pattern: `^.*$`

Required: No

Response Syntax

```
{
   "NextToken": "string",
   "Protections": [
      {
         "ApplicationLayerAutomaticResponseConfiguration": {
            "Action": {
               "Block": {
               },
```

```
                "Count": {
                }
            },
            "Status": "string"
        },
        "HealthCheckIds": [ "string" ],
        "Id": "string",
        "Name": "string",
        "ProtectionArn": "string",
        "ResourceArn": "string"
    }
  ]
}
```

Response Elements

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

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

NextToken

When you request a list of objects from AWS Shield Advanced, if the response does not include all of the remaining available objects, Shield Advanced includes a `NextToken` value in the response. You can retrieve the next batch of objects by requesting the list again and providing the token that was returned by the prior call in your request.

You can indicate the maximum number of objects that you want Shield Advanced to return for a single call with the `MaxResults` setting. Shield Advanced will not return more than `MaxResults` objects, but may return fewer, even if more objects are still available.

Whenever more objects remain that Shield Advanced has not yet returned to you, the response will include a `NextToken` value.

Type: String

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

Pattern: `^.*$`

Protections

The array of enabled Protection objects.

Type: Array of Protection objects

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidPaginationTokenException

Exception that indicates that the `NextToken` specified in the request is invalid. Submit the request using the `NextToken` value that was returned in the prior response.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2

- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

ListResourcesInProtectionGroup

Retrieves the resources that are included in the protection group.

Request Syntax

```
{
   "MaxResults": number,
   "NextToken": "string",
   "ProtectionGroupId": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

MaxResults

The greatest number of objects that you want Shield Advanced to return to the list request. Shield Advanced might return fewer objects than you indicate in this setting, even if more objects are available. If there are more objects remaining, Shield Advanced will always also return a `NextToken` value in the response.

The default setting is 20.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 10000.

Required: No

NextToken

When you request a list of objects from AWS Shield Advanced, if the response does not include all of the remaining available objects, Shield Advanced includes a `NextToken` value in the response. You can retrieve the next batch of objects by requesting the list again and providing the token that was returned by the prior call in your request.

You can indicate the maximum number of objects that you want Shield Advanced to return for a single call with the `MaxResults` setting. Shield Advanced will not return more than `MaxResults` objects, but may return fewer, even if more objects are still available.

Whenever more objects remain that Shield Advanced has not yet returned to you, the response will include a `NextToken` value.

On your first call to a list operation, leave this setting empty.

Type: String

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

Pattern: `^.*$`

Required: No

ProtectionGroupId

The name of the protection group. You use this to identify the protection group in lists and to manage the protection group, for example to update, delete, or describe it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

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

Required: Yes

Response Syntax

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

Response Elements

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

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

NextToken

When you request a list of objects from AWS Shield Advanced, if the response does not include all of the remaining available objects, Shield Advanced includes a `NextToken` value in the response. You can retrieve the next batch of objects by requesting the list again and providing the token that was returned by the prior call in your request.

You can indicate the maximum number of objects that you want Shield Advanced to return for a single call with the `MaxResults` setting. Shield Advanced will not return more than `MaxResults` objects, but may return fewer, even if more objects are still available.

Whenever more objects remain that Shield Advanced has not yet returned to you, the response will include a `NextToken` value.

Type: String

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

Pattern: `^.*$`

ResourceArns

The Amazon Resource Names (ARNs) of the resources that are included in the protection group.

Type: Array of strings

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

Pattern: `^arn:aws.*`

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidPaginationTokenException

Exception that indicates that the `NextToken` specified in the request is invalid. Submit the request using the `NextToken` value that was returned in the prior response.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

ListTagsForResource

Gets information about AWS tags for a specified Amazon Resource Name (ARN) in AWS Shield.

Request Syntax

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

Request Parameters

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

The request accepts the following data in JSON format.

ResourceARN

The Amazon Resource Name (ARN) of the resource to get tags for.

Type: String

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

Pattern: `^arn:aws.*`

Required: Yes

Response Syntax

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

Response Elements

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

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

Tags

A list of tag key and value pairs associated with the specified resource.

Type: Array of Tag objects

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidResourceException

Exception that indicates that the resource is invalid. You might not have access to the resource, or the resource might not exist.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

TagResource

Adds or updates tags for a resource in AWS Shield.

Request Syntax

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

Request Parameters

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

The request accepts the following data in JSON format.

ResourceARN

The Amazon Resource Name (ARN) of the resource that you want to add or update tags for.

Type: String

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

Pattern: `^arn:aws.*`

Required: Yes

Tags

The tags that you want to modify or add to the resource.

Type: Array of Tag objects

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

Required: Yes

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

InvalidResourceException

Exception that indicates that the resource is invalid. You might not have access to the resource, or the resource might not exist.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

UntagResource

Removes tags from a resource in AWS Shield.

Request Syntax

```
{
   "ResourceARN": "string",
   "TagKeys": [ "string" ]
}
```

Request Parameters

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

The request accepts the following data in JSON format.

ResourceARN

The Amazon Resource Name (ARN) of the resource that you want to remove tags from.

Type: String

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

Pattern: `^arn:aws.*`

Required: Yes

TagKeys

The tag key for each tag that you want to remove from the resource.

Type: Array of strings

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

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

Required: Yes

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

InvalidResourceException

Exception that indicates that the resource is invalid. You might not have access to the resource, or the resource might not exist.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

UpdateApplicationLayerAutomaticResponse

Updates an existing Shield Advanced automatic application layer DDoS mitigation configuration for the specified resource.

Request Syntax

```
{
   "Action": {
      "Block": {
      },
      "Count": {
      }
   },
   "ResourceArn": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

Action

Specifies the action setting that Shield Advanced should use in the AWS WAF rules that it creates on behalf of the protected resource in response to DDoS attacks. You specify this as part of the configuration for the automatic application layer DDoS mitigation feature, when you enable or update automatic mitigation. Shield Advanced creates the AWS WAF rules in a Shield Advanced-managed rule group, inside the web ACL that you have associated with the resource.

Type: ResponseAction object

Required: Yes

ResourceArn

The ARN (Amazon Resource Name) of the resource.

Type: String

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

Pattern: `^arn:aws.*`

Required: Yes

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidOperationException

Exception that indicates that the operation would not cause any change to occur.

HTTP Status Code: 400

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

UpdateEmergencyContactSettings

Updates the details of the list of email addresses and phone numbers that the Shield Response Team (SRT) can use to contact you if you have proactive engagement enabled, for escalations to the SRT and to initiate proactive customer support.

Request Syntax

```
{
   "EmergencyContactList": [
      {
         "ContactNotes": "string",
         "EmailAddress": "string",
         "PhoneNumber": "string"
      }
   ]
}
```

Request Parameters

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

The request accepts the following data in JSON format.

EmergencyContactList

A list of email addresses and phone numbers that the Shield Response Team (SRT) can use to contact you if you have proactive engagement enabled, for escalations to the SRT and to initiate proactive customer support.

If you have proactive engagement enabled, the contact list must include at least one phone number.

Type: Array of EmergencyContact objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

Required: No

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

UpdateProtectionGroup

Updates an existing protection group. A protection group is a grouping of protected resources so they can be handled as a collective. This resource grouping improves the accuracy of detection and reduces false positives.

Request Syntax

```
{
   "Aggregation": "string",
   "Members": [ "string" ],
   "Pattern": "string",
   "ProtectionGroupId": "string",
   "ResourceType": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

Aggregation

Defines how AWS Shield combines resource data for the group in order to detect, mitigate, and report events.

- Sum - Use the total traffic across the group. This is a good choice for most cases. Examples include Elastic IP addresses for EC2 instances that scale manually or automatically.
- Mean - Use the average of the traffic across the group. This is a good choice for resources that share traffic uniformly. Examples include accelerators and load balancers.
- Max - Use the highest traffic from each resource. This is useful for resources that don't share traffic and for resources that share that traffic in a non-uniform way. Examples include Amazon CloudFront distributions and origin resources for CloudFront distributions.

Type: String

Valid Values: `SUM | MEAN | MAX`

Required: Yes

Members

The Amazon Resource Names (ARNs) of the resources to include in the protection group. You must set this when you set `Pattern` to `ARBITRARY` and you must not set it for any other `Pattern` setting.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 10000 items.

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

Pattern: `^arn:aws.*`

Required: No

Pattern

The criteria to use to choose the protected resources for inclusion in the group. You can include all resources that have protections, provide a list of resource Amazon Resource Names (ARNs), or include all resources of a specified resource type.

Type: String

Valid Values: `ALL | ARBITRARY | BY_RESOURCE_TYPE`

Required: Yes

ProtectionGroupId

The name of the protection group. You use this to identify the protection group in lists and to manage the protection group, for example to update, delete, or describe it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

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

Required: Yes

ResourceType

The resource type to include in the protection group. All protected resources of this type are included in the protection group. You must set this when you set `Pattern` to `BY_RESOURCE_TYPE` and you must not set it for any other `Pattern` setting.

Type: String

Valid Values: `CLOUDFRONT_DISTRIBUTION | ROUTE_53_HOSTED_ZONE | ELASTIC_IP_ALLOCATION | CLASSIC_LOAD_BALANCER | APPLICATION_LOAD_BALANCER | GLOBAL_ACCELERATOR`

Required: No

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

UpdateSubscription

Updates the details of an existing subscription. Only enter values for parameters you want to change. Empty parameters are not updated.

> **Note**
>
> For accounts that are members of an AWS Organizations organization, Shield Advanced subscriptions are billed against the organization's payer account, regardless of whether the payer account itself is subscribed.

Request Syntax

```
{
   "AutoRenew": "string"
}
```

Request Parameters

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

The request accepts the following data in JSON format.

AutoRenew

When you initally create a subscription, `AutoRenew` is set to `ENABLED`. If `ENABLED`, the subscription will be automatically renewed at the end of the existing subscription period. You can change this by submitting an `UpdateSubscription` request. If the `UpdateSubscription` request does not included a value for `AutoRenew`, the existing value for `AutoRenew` remains unchanged.

Type: String

Valid Values: `ENABLED | DISABLED`

Required: No

Response Elements

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

Errors

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

InternalErrorException

Exception that indicates that a problem occurred with the service infrastructure. You can retry the request.

HTTP Status Code: 500

InvalidParameterException

Exception that indicates that the parameters passed to the API are invalid. If available, this exception includes details in additional properties.

fields

Fields that caused the exception.

reason

Additional information about the exception.

HTTP Status Code: 400

LockedSubscriptionException

You are trying to update a subscription that has not yet completed the 1-year commitment. You can change the `AutoRenew` parameter during the last 30 days of your subscription. This exception indicates that you are attempting to change `AutoRenew` prior to that period.

HTTP Status Code: 400

OptimisticLockException

Exception that indicates that the resource state has been modified by another client. Retrieve the resource and then retry your request.

HTTP Status Code: 400

ResourceNotFoundException

Exception indicating the specified resource does not exist. If available, this exception includes details in additional properties.

resourceType

Type of resource.

HTTP Status Code: 400

See Also

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

- AWS Command Line Interface V2
- AWS SDK for .NET V4
- AWS SDK for C++
- AWS SDK for Go v2
- AWS SDK for Java V2
- AWS SDK for JavaScript V3
- AWS SDK for Kotlin
- AWS SDK for PHP V3
- AWS SDK for Python (Boto3)
- AWS SDK for Ruby V3

Data Types

The AWS Shield Advanced API contains several data types that various actions use. This section describes each data type in detail.

> **Note**
>
> The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- ApplicationLayerAutomaticResponseConfiguration
- AttackDetail
- AttackProperty
- AttackStatisticsDataItem
- AttackSummary
- AttackVectorDescription
- AttackVolume
- AttackVolumeStatistics
- BlockAction
- Contributor
- CountAction
- EmergencyContact
- InclusionProtectionFilters
- InclusionProtectionGroupFilters
- Limit
- Mitigation
- Protection
- ProtectionGroup
- ProtectionGroupArbitraryPatternLimits
- ProtectionGroupLimits

- ProtectionGroupPatternTypeLimits
- ProtectionLimits
- ResponseAction
- SubResourceSummary
- Subscription
- SubscriptionLimits
- SummarizedAttackVector
- SummarizedCounter
- Tag
- TimeRange
- ValidationExceptionField

ApplicationLayerAutomaticResponseConfiguration

The automatic application layer DDoS mitigation settings for a Protection. This configuration determines whether Shield Advanced automatically manages rules in the web ACL in order to respond to application layer events that Shield Advanced determines to be DDoS attacks.

Contents

Action

Specifies the action setting that Shield Advanced should use in the AWS WAF rules that it creates on behalf of the protected resource in response to DDoS attacks. You specify this as part of the configuration for the automatic application layer DDoS mitigation feature, when you enable or update automatic mitigation. Shield Advanced creates the AWS WAF rules in a Shield Advanced-managed rule group, inside the web ACL that you have associated with the resource.

Type: ResponseAction object

Required: Yes

Status

Indicates whether automatic application layer DDoS mitigation is enabled for the protection.

Type: String

Valid Values: `ENABLED | DISABLED`

Required: Yes

See Also

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

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

AttackDetail

The details of a DDoS attack.

Contents

AttackCounters

List of counters that describe the attack for the specified time period.

Type: Array of SummarizedCounter objects

Required: No

AttackId

The unique identifier (ID) of the attack.

Type: String

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

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

Required: No

AttackProperties

The array of objects that provide details of the AWS Shield event.

For infrastructure layer events (L3 and L4 events), you can view metrics for top contributors in Amazon CloudWatch metrics. For more information, see AWS Shield metrics and alarms in the *AWS WAF Developer Guide*.

Type: Array of AttackProperty objects

Required: No

EndTime

The time the attack ended, in Unix time in seconds.

Type: Timestamp

Required: No

Mitigations

List of mitigation actions taken for the attack.

Type: Array of Mitigation objects

Required: No

ResourceArn

The ARN (Amazon Resource Name) of the resource that was attacked.

Type: String

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

Pattern: `^arn:aws.*`

Required: No

StartTime

The time the attack started, in Unix time in seconds.

Type: Timestamp

Required: No

SubResources

If applicable, additional detail about the resource being attacked, for example, IP address or URL.

Type: Array of SubResourceSummary objects

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

AttackProperty

Details of a AWS Shield event. This is provided as part of an AttackDetail.

Contents

AttackLayer

The type of AWS Shield event that was observed. `NETWORK` indicates layer 3 and layer 4 events and `APPLICATION` indicates layer 7 events.

For infrastructure layer events (L3 and L4 events), you can view metrics for top contributors in Amazon CloudWatch metrics. For more information, see AWS Shield metrics and alarms in the *AWS WAF Developer Guide*.

Type: String

Valid Values: `NETWORK | APPLICATION`

Required: No

AttackPropertyIdentifier

Defines the AWS Shield event property information that is provided. The `WORDPRESS_PINGBACK_REFLECTOR` and `WORDPRESS_PINGBACK_SOURCE` values are valid only for WordPress reflective pingback events.

Type: String

Valid Values: `DESTINATION_URL | REFERRER | SOURCE_ASN | SOURCE_COUNTRY | SOURCE_IP_ADDRESS | SOURCE_USER_AGENT | WORDPRESS_PINGBACK_REFLECTOR | WORDPRESS_PINGBACK_SOURCE`

Required: No

TopContributors

Contributor objects for the top five contributors to a Shield event. A contributor is a source of traffic that Shield Advanced identifies as responsible for some or all of an event.

Type: Array of Contributor objects

Required: No

Total

The total contributions made to this Shield event by all contributors.

Type: Long

Required: No

Unit

The unit used for the `Contributor Value` property.

Type: String

Valid Values: `BITS | BYTES | PACKETS | REQUESTS`

Required: No

See Also

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

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

AttackStatisticsDataItem

A single attack statistics data record. This is returned by DescribeAttackStatistics along with a time range indicating the time period that the attack statistics apply to.

Contents

AttackCount

The number of attacks detected during the time period. This is always present, but might be zero.

Type: Long

Required: Yes

AttackVolume

Information about the volume of attacks during the time period. If the accompanying `AttackCount` is zero, this setting might be empty.

Type: AttackVolume object

Required: No

See Also

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

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

AttackSummary

Summarizes all DDoS attacks for a specified time period.

Contents

AttackId

The unique identifier (ID) of the attack.

Type: String

Required: No

AttackVectors

The list of attacks for a specified time period.

Type: Array of AttackVectorDescription objects

Required: No

EndTime

The end time of the attack, in Unix time in seconds.

Type: Timestamp

Required: No

ResourceArn

The ARN (Amazon Resource Name) of the resource that was attacked.

Type: String

Required: No

StartTime

The start time of the attack, in Unix time in seconds.

Type: Timestamp

Required: No

See Also

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

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

AttackVectorDescription

Describes the attack.

Contents

VectorType

The attack type. Valid values:

- UDP_TRAFFIC
- UDP_FRAGMENT
- GENERIC_UDP_REFLECTION
- DNS_REFLECTION
- NTP_REFLECTION
- CHARGEN_REFLECTION
- SSDP_REFLECTION
- PORT_MAPPER
- RIP_REFLECTION
- SNMP_REFLECTION
- MSSQL_REFLECTION
- NET_BIOS_REFLECTION
- SYN_FLOOD
- ACK_FLOOD
- REQUEST_FLOOD
- HTTP_REFLECTION
- UDS_REFLECTION
- MEMCACHED_REFLECTION

Type: String

Required: Yes

See Also

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

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

AttackVolume

Information about the volume of attacks during the time period, included in an AttackStatisticsDataItem. If the accompanying `AttackCount` in the statistics object is zero, this setting might be empty.

Contents

BitsPerSecond

A statistics object that uses bits per second as the unit. This is included for network level attacks.

Type: AttackVolumeStatistics object

Required: No

PacketsPerSecond

A statistics object that uses packets per second as the unit. This is included for network level attacks.

Type: AttackVolumeStatistics object

Required: No

RequestsPerSecond

A statistics object that uses requests per second as the unit. This is included for application level attacks, and is only available for accounts that are subscribed to Shield Advanced.

Type: AttackVolumeStatistics object

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

AttackVolumeStatistics

Statistics objects for the various data types in AttackVolume.

Contents

Max

The maximum attack volume observed for the given unit.

Type: Double

Required: Yes

See Also

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

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

BlockAction

Specifies that Shield Advanced should configure its AWS WAF rules with the AWS WAF `Block` action.

This is only used in the context of the `ResponseAction` setting.

JSON specification: `"Block": {}`

Contents

The members of this exception structure are context-dependent.

See Also

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

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

Contributor

A contributor to the attack and their contribution.

Contents

Name

The name of the contributor. The type of name that you'll find here depends on the `AttackPropertyIdentifier` setting in the `AttackProperty` where this contributor is defined. For example, if the `AttackPropertyIdentifier` is `SOURCE_COUNTRY`, the `Name` could be `United States`.

Type: String

Required: No

Value

The contribution of this contributor expressed in Protection units. For example `10,000`.

Type: Long

Required: No

See Also

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

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

CountAction

Specifies that Shield Advanced should configure its AWS WAF rules with the AWS WAF `Count` action.

This is only used in the context of the `ResponseAction` setting.

JSON specification: `"Count": {}`

Contents

The members of this exception structure are context-dependent.

See Also

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

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

EmergencyContact

Contact information that the SRT can use to contact you if you have proactive engagement enabled, for escalations to the SRT and to initiate proactive customer support.

Contents

EmailAddress

The email address for the contact.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 150.

Pattern: `^\S+@\S+\.\S+$`

Required: Yes

ContactNotes

Additional notes regarding the contact.

Type: String

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

Pattern: `^[\w\s\.\-,:/()+@]*$`

Required: No

PhoneNumber

The phone number for the contact.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 16.

Pattern: `^\+[1-9]\d{1,14}$`

Required: No

See Also

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

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

InclusionProtectionFilters

Narrows the set of protections that the call retrieves. You can retrieve a single protection by providing its name or the ARN (Amazon Resource Name) of its protected resource. You can also retrieve all protections for a specific resource type. You can provide up to one criteria per filter type. Shield Advanced returns protections that exactly match all of the filter criteria that you provide.

Contents

ProtectionNames

The name of the protection that you want to retrieve.

Type: Array of strings

Array Members: Fixed number of 1 item.

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

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

Required: No

ResourceArns

The ARN (Amazon Resource Name) of the resource whose protection you want to retrieve.

Type: Array of strings

Array Members: Fixed number of 1 item.

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

Pattern: `^arn:aws.*`

Required: No

ResourceTypes

The type of protected resource whose protections you want to retrieve.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `CLOUDFRONT_DISTRIBUTION | ROUTE_53_HOSTED_ZONE | ELASTIC_IP_ALLOCATION | CLASSIC_LOAD_BALANCER | APPLICATION_LOAD_BALANCER | GLOBAL_ACCELERATOR`

Required: No

See Also

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

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

InclusionProtectionGroupFilters

Narrows the set of protection groups that the call retrieves. You can retrieve a single protection group by its name and you can retrieve all protection groups that are configured with a specific pattern, aggregation, or resource type. You can provide up to one criteria per filter type. Shield Advanced returns the protection groups that exactly match all of the search criteria that you provide.

Contents

Aggregations

The aggregation setting of the protection groups that you want to retrieve.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `SUM | MEAN | MAX`

Required: No

Patterns

The pattern specification of the protection groups that you want to retrieve.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `ALL | ARBITRARY | BY_RESOURCE_TYPE`

Required: No

ProtectionGroupIds

The ID of the protection group that you want to retrieve.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 36.

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

Required: No

ResourceTypes

The resource type configuration of the protection groups that you want to retrieve. In the protection group configuration, you specify the resource type when you set the group's `Pattern` to `BY_RESOURCE_TYPE`.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `CLOUDFRONT_DISTRIBUTION | ROUTE_53_HOSTED_ZONE | ELASTIC_IP_ALLOCATION | CLASSIC_LOAD_BALANCER | APPLICATION_LOAD_BALANCER | GLOBAL_ACCELERATOR`

Required: No

See Also

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

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

Limit

Specifies how many protections of a given type you can create.

Contents

Max

The maximum number of protections that can be created for the specified Type.

Type: Long

Required: No

Type

The type of protection.

Type: String

Required: No

See Also

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

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

Mitigation

The mitigation applied to a DDoS attack.

Contents

MitigationName

The name of the mitigation taken for this attack.

Type: String

Required: No

See Also

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

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

Protection

An object that represents a resource that is under DDoS protection.

Contents

ApplicationLayerAutomaticResponseConfiguration

The automatic application layer DDoS mitigation settings for the protection. This configuration determines whether Shield Advanced automatically manages rules in the web ACL in order to respond to application layer events that Shield Advanced determines to be DDoS attacks.

Type: ApplicationLayerAutomaticResponseConfiguration object

Required: No

HealthCheckIds

The unique identifier (ID) for the Route 53 health check that's associated with the protection.

Type: Array of strings

Required: No

Id

The unique identifier (ID) of the protection.

Type: String

Length Constraints: Fixed length of 36.

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

Required: No

Name

The name of the protection. For example, `My CloudFront distributions`.

Type: String

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

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

Required: No

ProtectionArn

The ARN (Amazon Resource Name) of the protection.

Type: String

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

Pattern: `^arn:aws.*`

Required: No

ResourceArn

The ARN (Amazon Resource Name) of the AWS resource that is protected.

Type: String

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

Pattern: `^arn:aws.*`

Required: No

See Also

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

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

ProtectionGroup

A grouping of protected resources that you and AWS Shield Advanced can monitor as a collective. This resource grouping improves the accuracy of detection and reduces false positives.

Contents

Aggregation

Defines how AWS Shield combines resource data for the group in order to detect, mitigate, and report events.

- `Sum` - Use the total traffic across the group. This is a good choice for most cases. Examples include Elastic IP addresses for EC2 instances that scale manually or automatically.
- `Mean` - Use the average of the traffic across the group. This is a good choice for resources that share traffic uniformly. Examples include accelerators and load balancers.
- `Max` - Use the highest traffic from each resource. This is useful for resources that don't share traffic and for resources that share that traffic in a non-uniform way. Examples include Amazon CloudFront distributions and origin resources for CloudFront distributions.

Type: String

Valid Values: `SUM | MEAN | MAX`

Required: Yes

Members

The ARNs (Amazon Resource Names) of the resources to include in the protection group. You must set this when you set `Pattern` to `ARBITRARY` and you must not set it for any other `Pattern` setting.

Type: Array of strings

Array Members: Minimum number of 0 items. Maximum number of 10000 items.

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

Pattern: `^arn:aws.*`

Required: Yes

Pattern

The criteria to use to choose the protected resources for inclusion in the group. You can include all resources that have protections, provide a list of resource ARNs (Amazon Resource Names), or include all resources of a specified resource type.

Type: String

Valid Values: `ALL | ARBITRARY | BY_RESOURCE_TYPE`

Required: Yes

ProtectionGroupId

The name of the protection group. You use this to identify the protection group in lists and to manage the protection group, for example to update, delete, or describe it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

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

Required: Yes

ProtectionGroupArn

The ARN (Amazon Resource Name) of the protection group.

Type: String

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

Pattern: `^arn:aws.*`

Required: No

ResourceType

The resource type to include in the protection group. All protected resources of this type are included in the protection group. You must set this when you set `Pattern` to `BY_RESOURCE_TYPE` and you must not set it for any other `Pattern` setting.

Type: String

Valid Values: `CLOUDFRONT_DISTRIBUTION | ROUTE_53_HOSTED_ZONE | ELASTIC_IP_ALLOCATION | CLASSIC_LOAD_BALANCER | APPLICATION_LOAD_BALANCER | GLOBAL_ACCELERATOR`

Required: No

See Also

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

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

ProtectionGroupArbitraryPatternLimits

Limits settings on protection groups with arbitrary pattern type.

Contents

MaxMembers

The maximum number of resources you can specify for a single arbitrary pattern in a protection group.

Type: Long

Required: Yes

See Also

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

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

ProtectionGroupLimits

Limits settings on protection groups for your subscription.

Contents

MaxProtectionGroups

The maximum number of protection groups that you can have at one time.

Type: Long

Required: Yes

PatternTypeLimits

Limits settings by pattern type in the protection groups for your subscription.

Type: ProtectionGroupPatternTypeLimits object

Required: Yes

See Also

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

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

ProtectionGroupPatternTypeLimits

Limits settings by pattern type in the protection groups for your subscription.

Contents

ArbitraryPatternLimits

Limits settings on protection groups with arbitrary pattern type.

Type: ProtectionGroupArbitraryPatternLimits object

Required: Yes

See Also

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

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

ProtectionLimits

Limits settings on protections for your subscription.

Contents

ProtectedResourceTypeLimits

The maximum number of resource types that you can specify in a protection.

Type: Array of Limit objects

Required: Yes

See Also

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

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

ResponseAction

Specifies the action setting that Shield Advanced should use in the AWS WAF rules that it creates on behalf of the protected resource in response to DDoS attacks. You specify this as part of the configuration for the automatic application layer DDoS mitigation feature, when you enable or update automatic mitigation. Shield Advanced creates the AWS WAF rules in a Shield Advanced-managed rule group, inside the web ACL that you have associated with the resource.

Contents

Block

Specifies that Shield Advanced should configure its AWS WAF rules with the AWS WAF `Block` action.

You must specify exactly one action, either `Block` or `Count`.

Type: BlockAction object

Required: No

Count

Specifies that Shield Advanced should configure its AWS WAF rules with the AWS WAF `Count` action.

You must specify exactly one action, either `Block` or `Count`.

Type: CountAction object

Required: No

See Also

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

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

SubResourceSummary

The attack information for the specified SubResource.

Contents

AttackVectors

The list of attack types and associated counters.

Type: Array of SummarizedAttackVector objects

Required: No

Counters

The counters that describe the details of the attack.

Type: Array of SummarizedCounter objects

Required: No

Id

The unique identifier (ID) of the `SubResource`.

Type: String

Required: No

Type

The `SubResource` type.

Type: String

Valid Values: `IP` | `URL`

Required: No

See Also

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

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

Subscription

Information about the AWS Shield Advanced subscription for an account.

Contents

SubscriptionLimits

Limits settings for your subscription.

Type: SubscriptionLimits object

Required: Yes

AutoRenew

If `ENABLED`, the subscription will be automatically renewed at the end of the existing subscription period.

When you initally create a subscription, `AutoRenew` is set to `ENABLED`. You can change this by submitting an `UpdateSubscription` request. If the `UpdateSubscription` request does not included a value for `AutoRenew`, the existing value for `AutoRenew` remains unchanged.

Type: String

Valid Values: `ENABLED | DISABLED`

Required: No

EndTime

The date and time your subscription will end.

Type: Timestamp

Required: No

Limits

Specifies how many protections of a given type you can create.

Type: Array of Limit objects

Required: No

ProactiveEngagementStatus

If `ENABLED`, the Shield Response Team (SRT) will use email and phone to notify contacts about escalations to the SRT and to initiate proactive customer support.

If `PENDING`, you have requested proactive engagement and the request is pending. The status changes to `ENABLED` when your request is fully processed.

If `DISABLED`, the SRT will not proactively notify contacts about escalations or to initiate proactive customer support.

Type: String

Valid Values: `ENABLED | DISABLED | PENDING`

Required: No

StartTime

The start time of the subscription, in Unix time in seconds.

Type: Timestamp

Required: No

SubscriptionArn

The ARN (Amazon Resource Name) of the subscription.

Type: String

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

Pattern: `^arn:aws.*`

Required: No

TimeCommitmentInSeconds

The length, in seconds, of the AWS Shield Advanced subscription for the account.

Type: Long

Valid Range: Minimum value of 0.

Required: No

See Also

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

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

SubscriptionLimits

Limits settings for your subscription.

Contents

ProtectionGroupLimits

Limits settings on protection groups for your subscription.

Type: ProtectionGroupLimits object

Required: Yes

ProtectionLimits

Limits settings on protections for your subscription.

Type: ProtectionLimits object

Required: Yes

See Also

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

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

SummarizedAttackVector

A summary of information about the attack.

Contents

VectorType

The attack type, for example, SNMP reflection or SYN flood.

Type: String

Required: Yes

VectorCounters

The list of counters that describe the details of the attack.

Type: Array of SummarizedCounter objects

Required: No

See Also

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

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

SummarizedCounter

The counter that describes a DDoS attack.

Contents

Average

The average value of the counter for a specified time period.

Type: Double

Required: No

Max

The maximum value of the counter for a specified time period.

Type: Double

Required: No

N

The number of counters for a specified time period.

Type: Integer

Required: No

Name

The counter name.

Type: String

Required: No

Sum

The total of counter values for a specified time period.

Type: Double

Required: No

Unit

The unit of the counters.

Type: String

Required: No

See Also

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

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

Tag

A tag associated with an AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing or other management. Typically, the tag key represents a category, such as "environment", and the tag value represents a specific value within that category, such as "test," "development," or "production". Or you might set the tag key to "customer" and the value to the customer name or ID. You can specify one or more tags to add to each AWS resource, up to 50 tags for a resource.

Contents

Key

Part of the key:value pair that defines a tag. You can use a tag key to describe a category of information, such as "customer." Tag keys are case-sensitive.

Type: String

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

Required: No

Value

Part of the key:value pair that defines a tag. You can use a tag value to describe a specific value within a category, such as "companyA" or "companyB." Tag values are case-sensitive.

Type: String

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

Required: No

See Also

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

- AWS SDK for C++
- AWS SDK for Java V2

- AWS SDK for Ruby V3

TimeRange

The time range.

Contents

FromInclusive

The start time, in Unix time in seconds.

Type: Timestamp

Required: No

ToExclusive

The end time, in Unix time in seconds.

Type: Timestamp

Required: No

See Also

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

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

ValidationExceptionField

Provides information about a particular parameter passed inside a request that resulted in an exception.

Contents

message

The message describing why the parameter failed validation.

Type: String

Required: Yes

name

The name of the parameter that failed validation.

Type: String

Required: Yes

See Also

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

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

Common Parameters

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

X-Amz-Algorithm

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

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

Type: string

Valid Values: `AWS4-HMAC-SHA256`

Required: Conditional

X-Amz-Credential

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

For more information, see Create a signed AWS API request in the *IAM User Guide*.

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

Type: string

Required: Conditional

X-Amz-Date

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

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

Type: string

Required: Conditional

X-Amz-Security-Token

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

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

Type: string

Required: Conditional

X-Amz-Signature

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

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

Type: string

Required: Conditional

X-Amz-SignedHeaders

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

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

Type: string

Required: Conditional

Common Error Types

This section lists common error types that this AWS service may return. Not all services return all error types listed here. For errors specific to an API action for this service, see the topic for that API action.

AccessDeniedException

You don't have permission to perform this action. Verify that your IAM policy includes the required permissions.

HTTP Status Code: 403

ExpiredTokenException

The security token included in the request has expired. Request a new security token and try again.

HTTP Status Code: 403

IncompleteSignature

The request signature doesn't conform to AWS standards. Verify that you're using valid AWS credentials and that your request is properly formatted. If you're using an SDK, ensure it's up to date.

HTTP Status Code: 403

InternalFailure

The request can't be processed right now because of an internal server issue. Try again later. If the problem persists, contact AWS Support.

HTTP Status Code: 500

MalformedHttpRequestException

The request body can't be processed. This typically happens when the request body can't be decompressed using the specified content encoding algorithm. Verify that the content encoding header matches the compression format used.

HTTP Status Code: 400

NotAuthorized

You don't have permissions to perform this action. Verify that your IAM policy includes the required permissions.

HTTP Status Code: 401

OptInRequired

Your AWS account needs a subscription for this service. Verify that you've enabled the service in your account.

HTTP Status Code: 403

RequestAbortedException

The request was aborted before a response could be returned. This typically happens when the client closes the connection.

HTTP Status Code: 400

RequestEntityTooLargeException

The request entity is too large. Reduce the size of the request body and try again.

HTTP Status Code: 413

RequestTimeoutException

The request timed out. The server didn't receive the complete request within the expected time frame. Try again.

HTTP Status Code: 408

ServiceUnavailable

The service is temporarily unavailable. Try again later.

HTTP Status Code: 503

ThrottlingException

Your request rate is too high. The AWS SDKs automatically retry requests that receive this exception. Reduce the frequency of requests.

HTTP Status Code: 400

UnknownOperationException

The action or operation isn't recognized. Verify that the action name is spelled correctly and that it's supported by the API version you're using.

HTTP Status Code: 404

UnrecognizedClientException

The X.509 certificate or AWS access key ID you provided doesn't exist in our records. Verify that you're using valid credentials and that they haven't expired.

HTTP Status Code: 403

ValidationError

The input doesn't meet the required format or constraints. Check that all required parameters are included and that values are valid.

HTTP Status Code: 400