
AWS WAFV2

API Reference



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Welcome

AWS WAFV2

Note

This is the latest version of the [AWS WAF API](#), released in November, 2019. The names of the entities that you use to access this API, like endpoints and namespaces, all have the versioning information added, like "V2" or "v2", to distinguish from the prior version. We recommend migrating your resources to this version, because it has a number of significant improvements. If you used AWS WAF prior to this release, you can't use this AWS WAFV2 API to access any AWS WAF resources that you created before. You can access your old rules, web ACLs, and other AWS WAF resources only through the AWS WAF Classic APIs. The AWS WAF Classic APIs have retained the prior names, endpoints, and namespaces.

For information, including how to migrate your AWS WAF resources to this version, see the [AWS WAF Developer Guide](#).

AWS WAF is a web application firewall that lets you monitor the HTTP and HTTPS requests that are forwarded to Amazon CloudFront, an Amazon API Gateway REST API, an Application Load Balancer, or an AWS AppSync GraphQL API. AWS WAF also lets you control access to your content. Based on criteria that you specify, such as the IP addresses that requests originate from or the values of query strings, the Amazon API Gateway REST API, CloudFront distribution, the Application Load Balancer, or the AWS AppSync GraphQL API responds to requests either with the requested content or with an HTTP 403 status code (Forbidden). You also can configure CloudFront to return a custom error page when a request is blocked.

This API guide is for developers who need detailed information about AWS WAF API actions, data types, and errors. For detailed information about AWS WAF features and an overview of how to use AWS WAF, see the [AWS WAF Developer Guide](#).

You can make calls using the endpoints listed in [AWS WAF endpoints and quotas](#).

- For regional applications, you can use any of the endpoints in the list. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.
- For Amazon CloudFront applications, you must use the API endpoint listed for US East (N. Virginia): us-east-1.

Alternatively, you can use one of the AWS SDKs to access an API that's tailored to the programming language or platform that you're using. For more information, see [AWS SDKs](#).

We currently provide two versions of the AWS WAF API: this API and the prior versions, the classic AWS WAF APIs. This new API provides the same functionality as the older versions, with the following major improvements:

- You use one API for both global and regional applications. Where you need to distinguish the scope, you specify a `Scope` parameter and set it to `CLOUDFRONT` or `REGIONAL`.
- You can define a web ACL or rule group with a single call, and update it with a single call. You define all rule specifications in JSON format, and pass them to your rule group or web ACL calls.
- The limits AWS WAF places on the use of rules more closely reflects the cost of running each type of rule. Rule groups include capacity settings, so you know the maximum cost of a rule group when you use it.

AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

This is the *AWS WAF Classic API Reference* for using AWS WAF Classic with Amazon CloudFront. The AWS WAF Classic actions and data types listed in the reference are available for protecting CloudFront distributions. You can use these actions and data types via the endpoint waf.amazonaws.com. This guide is for developers who need detailed information about the AWS WAF Classic API actions, data types, and errors. For detailed information about AWS WAF Classic features and an overview of how to use the AWS WAF Classic API, see the [AWS WAF Classic](#) in the developer guide.

AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

This is the *AWS WAF Classic Regional API Reference* for using AWS WAF Classic with the AWS resources, Elastic Load Balancing Application Load Balancers and Amazon API Gateway APIs. The AWS WAF Classic actions and data types listed in the reference are available for protecting these resource types. You can use these actions and data types by means of the endpoints listed in [AWS WAF Classic endpoints and quotas](#). This guide is for developers who need detailed information about the AWS WAF Classic API actions, data types, and errors. For detailed information about AWS WAF Classic features and an overview of how to use the AWS WAF Classic API, see the [AWS WAF Classic](#) in the developer guide.

Actions

The following actions are supported by AWS WAFV2:

- [AssociateWebACL \(p. 9\)](#)
- [CheckCapacity \(p. 12\)](#)
- [CreateIPSet \(p. 23\)](#)
- [CreateRegexPatternSet \(p. 27\)](#)
- [CreateRuleGroup \(p. 31\)](#)
- [CreateWebACL \(p. 44\)](#)
- [DeleteFirewallManagerRuleGroups \(p. 57\)](#)
- [DeleteIPSet \(p. 60\)](#)
- [DeleteLoggingConfiguration \(p. 63\)](#)
- [DeletePermissionPolicy \(p. 65\)](#)
- [DeleteRegexPatternSet \(p. 67\)](#)
- [DeleteRuleGroup \(p. 70\)](#)
- [DeleteWebACL \(p. 73\)](#)
- [DescribeManagedRuleGroup \(p. 77\)](#)
- [DisassociateWebACL \(p. 82\)](#)
- [GenerateMobileSdkReleaseUrl \(p. 84\)](#)
- [GetIPSet \(p. 86\)](#)
- [GetLoggingConfiguration \(p. 89\)](#)
- [GetManagedRuleSet \(p. 92\)](#)
- [GetMobileSdkRelease \(p. 95\)](#)
- [GetPermissionPolicy \(p. 98\)](#)
- [GetRateBasedStatementManagedKeys \(p. 100\)](#)
- [GetRegexPatternSet \(p. 104\)](#)
- [GetRuleGroup \(p. 107\)](#)
- [GetSampledRequests \(p. 118\)](#)
- [GetWebACL \(p. 122\)](#)
- [GetWebACLForResource \(p. 147\)](#)
- [ListAvailableManagedRuleGroups \(p. 172\)](#)
- [ListAvailableManagedRuleGroupVersions \(p. 175\)](#)
- [ListIPSets \(p. 179\)](#)
- [ListLoggingConfigurations \(p. 182\)](#)
- [ListManagedRuleSets \(p. 186\)](#)
- [ListMobileSdkReleases \(p. 189\)](#)
- [ListRegexPatternSets \(p. 192\)](#)
- [ListResourcesForWebACL \(p. 195\)](#)
- [ListRuleGroups \(p. 198\)](#)
- [ListTagsForResource \(p. 201\)](#)
- [ListWebACLs \(p. 204\)](#)
- [PutLoggingConfiguration \(p. 207\)](#)
- [PutManagedRuleSetVersions \(p. 212\)](#)

- [PutPermissionPolicy](#) (p. 216)
- [TagResource](#) (p. 219)
- [UntagResource](#) (p. 222)
- [UpdateIPSet](#) (p. 224)
- [UpdateManagedRuleSetVersionExpiryDate](#) (p. 229)
- [UpdateRegexPatternSet](#) (p. 233)
- [UpdateRuleGroup](#) (p. 237)
- [UpdateWebACL](#) (p. 250)

The following actions are supported by AWS WAF Classic:

- [CreateByteMatchSet](#) (p. 266)
- [CreateGeoMatchSet](#) (p. 270)
- [CreateIPSet](#) (p. 274)
- [CreateRateBasedRule](#) (p. 277)
- [CreateRegexMatchSet](#) (p. 282)
- [CreateRegexPatternSet](#) (p. 285)
- [CreateRule](#) (p. 288)
- [CreateRuleGroup](#) (p. 292)
- [CreateSizeConstraintSet](#) (p. 296)
- [CreateSqlInjectionMatchSet](#) (p. 300)
- [CreateWebACL](#) (p. 304)
- [CreateWebACLMigrationStack](#) (p. 309)
- [CreateXssMatchSet](#) (p. 313)
- [DeleteByteMatchSet](#) (p. 317)
- [DeleteGeoMatchSet](#) (p. 320)
- [DeleteIPSet](#) (p. 323)
- [DeleteLoggingConfiguration](#) (p. 326)
- [DeletePermissionPolicy](#) (p. 328)
- [DeleteRateBasedRule](#) (p. 330)
- [DeleteRegexMatchSet](#) (p. 333)
- [DeleteRegexPatternSet](#) (p. 336)
- [DeleteRule](#) (p. 339)
- [DeleteRuleGroup](#) (p. 342)
- [DeleteSizeConstraintSet](#) (p. 345)
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- [DeleteWebACL](#) (p. 351)
- [DeleteXssMatchSet](#) (p. 354)
- [GetByteMatchSet](#) (p. 357)
- [GetChangeToken](#) (p. 360)
- [GetChangeTokenStatus](#) (p. 362)
- [GetGeoMatchSet](#) (p. 364)
- [GetIPSet](#) (p. 366)
- [GetLoggingConfiguration](#) (p. 368)
- [GetPermissionPolicy](#) (p. 370)
- [GetRateBasedRule](#) (p. 372)

- [GetRateBasedRuleManagedKeys \(p. 374\)](#)
- [GetRegexMatchSet \(p. 377\)](#)
- [GetRegexPatternSet \(p. 379\)](#)
- [GetRule \(p. 381\)](#)
- [GetRuleGroup \(p. 383\)](#)
- [GetSampledRequests \(p. 385\)](#)
- [GetSizeConstraintSet \(p. 389\)](#)
- [GetSqlInjectionMatchSet \(p. 392\)](#)
- [GetWebACL \(p. 395\)](#)
- [GetXssMatchSet \(p. 398\)](#)
- [ListActivatedRulesInRuleGroup \(p. 400\)](#)
- [ListByteMatchSets \(p. 403\)](#)
- [ListGeoMatchSets \(p. 406\)](#)
- [ListIPSets \(p. 409\)](#)
- [ListLoggingConfigurations \(p. 412\)](#)
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- [ListRegexPatternSets \(p. 421\)](#)
- [ListRuleGroups \(p. 424\)](#)
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- [ListSqlInjectionMatchSets \(p. 433\)](#)
- [ListSubscribedRuleGroups \(p. 436\)](#)
- [ListTagsForResource \(p. 439\)](#)
- [ListWebACLs \(p. 442\)](#)
- [ListXssMatchSets \(p. 445\)](#)
- [PutLoggingConfiguration \(p. 448\)](#)
- [PutPermissionPolicy \(p. 451\)](#)
- [TagResource \(p. 454\)](#)
- [UntagResource \(p. 457\)](#)
- [UpdateByteMatchSet \(p. 459\)](#)
- [UpdateGeoMatchSet \(p. 463\)](#)
- [UpdateIPSet \(p. 467\)](#)
- [UpdateRateBasedRule \(p. 472\)](#)
- [UpdateRegexMatchSet \(p. 477\)](#)
- [UpdateRegexPatternSet \(p. 481\)](#)
- [UpdateRule \(p. 485\)](#)
- [UpdateRuleGroup \(p. 489\)](#)
- [UpdateSizeConstraintSet \(p. 493\)](#)
- [UpdateSqlInjectionMatchSet \(p. 498\)](#)
- [UpdateWebACL \(p. 502\)](#)
- [UpdateXssMatchSet \(p. 507\)](#)

The following actions are supported by AWS WAF Classic Regional:

- [AssociateWebACL \(p. 513\)](#)

- [CreateByteMatchSet \(p. 516\)](#)
- [CreateGeoMatchSet \(p. 520\)](#)
- [CreateIPSet \(p. 524\)](#)
- [CreateRateBasedRule \(p. 527\)](#)
- [CreateRegexMatchSet \(p. 532\)](#)
- [CreateRegexPatternSet \(p. 535\)](#)
- [CreateRule \(p. 538\)](#)
- [CreateRuleGroup \(p. 542\)](#)
- [CreateSizeConstraintSet \(p. 546\)](#)
- [CreateSqlInjectionMatchSet \(p. 550\)](#)
- [CreateWebACL \(p. 554\)](#)
- [CreateWebACLMigrationStack \(p. 559\)](#)
- [CreateXssMatchSet \(p. 563\)](#)
- [DeleteByteMatchSet \(p. 567\)](#)
- [DeleteGeoMatchSet \(p. 570\)](#)
- [DeleteIPSet \(p. 573\)](#)
- [DeleteLoggingConfiguration \(p. 576\)](#)
- [DeletePermissionPolicy \(p. 578\)](#)
- [DeleteRateBasedRule \(p. 580\)](#)
- [DeleteRegexMatchSet \(p. 583\)](#)
- [DeleteRegexPatternSet \(p. 586\)](#)
- [DeleteRule \(p. 589\)](#)
- [DeleteRuleGroup \(p. 592\)](#)
- [DeleteSizeConstraintSet \(p. 595\)](#)
- [DeleteSqlInjectionMatchSet \(p. 598\)](#)
- [DeleteWebACL \(p. 601\)](#)
- [DeleteXssMatchSet \(p. 604\)](#)
- [DisassociateWebACL \(p. 607\)](#)
- [GetByteMatchSet \(p. 609\)](#)
- [GetChangeToken \(p. 612\)](#)
- [GetChangeTokenStatus \(p. 614\)](#)
- [GetGeoMatchSet \(p. 616\)](#)
- [GetIPSet \(p. 618\)](#)
- [GetLoggingConfiguration \(p. 620\)](#)
- [GetPermissionPolicy \(p. 622\)](#)
- [GetRateBasedRule \(p. 624\)](#)
- [GetRateBasedRuleManagedKeys \(p. 626\)](#)
- [GetRegexMatchSet \(p. 629\)](#)
- [GetRegexPatternSet \(p. 631\)](#)
- [GetRule \(p. 633\)](#)
- [GetRuleGroup \(p. 635\)](#)
- [GetSampledRequests \(p. 637\)](#)
- [GetSizeConstraintSet \(p. 641\)](#)
- [GetSqlInjectionMatchSet \(p. 644\)](#)
- [GetWebACL \(p. 647\)](#)
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- [GetXssMatchSet \(p. 653\)](#)
- [ListActivatedRulesInRuleGroup \(p. 655\)](#)
- [ListByteMatchSets \(p. 658\)](#)
- [ListGeoMatchSets \(p. 661\)](#)
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- [ListSubscribedRuleGroups \(p. 694\)](#)
- [ListTagsForResource \(p. 697\)](#)
- [ListWebACLS \(p. 700\)](#)
- [ListXssMatchSets \(p. 703\)](#)
- [PutLoggingConfiguration \(p. 706\)](#)
- [PutPermissionPolicy \(p. 709\)](#)
- [TagResource \(p. 712\)](#)
- [UntagResource \(p. 715\)](#)
- [UpdateByteMatchSet \(p. 717\)](#)
- [UpdateGeoMatchSet \(p. 721\)](#)
- [UpdateIPSet \(p. 725\)](#)
- [UpdateRateBasedRule \(p. 730\)](#)
- [UpdateRegexMatchSet \(p. 735\)](#)
- [UpdateRegexPatternSet \(p. 739\)](#)
- [UpdateRule \(p. 743\)](#)
- [UpdateRuleGroup \(p. 747\)](#)
- [UpdateSizeConstraintSet \(p. 751\)](#)
- [UpdateSqlInjectionMatchSet \(p. 756\)](#)
- [UpdateWebACL \(p. 760\)](#)
- [UpdateXssMatchSet \(p. 765\)](#)

AWS WAFV2

The following actions are supported by AWS WAFV2:

- [AssociateWebACL \(p. 9\)](#)
- [CheckCapacity \(p. 12\)](#)
- [CreateIPSet \(p. 23\)](#)
- [CreateRegexPatternSet \(p. 27\)](#)
- [CreateRuleGroup \(p. 31\)](#)
- [CreateWebACL \(p. 44\)](#)

- [DeleteFirewallManagerRuleGroups \(p. 57\)](#)
- [DeleteIPSet \(p. 60\)](#)
- [DeleteLoggingConfiguration \(p. 63\)](#)
- [DeletePermissionPolicy \(p. 65\)](#)
- [DeleteRegexPatternSet \(p. 67\)](#)
- [DeleteRuleGroup \(p. 70\)](#)
- [DeleteWebACL \(p. 73\)](#)
- [DescribeManagedRuleGroup \(p. 77\)](#)
- [DisassociateWebACL \(p. 82\)](#)
- [GenerateMobileSdkReleaseUrl \(p. 84\)](#)
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- [GetMobileSdkRelease \(p. 95\)](#)
- [GetPermissionPolicy \(p. 98\)](#)
- [GetRateBasedStatementManagedKeys \(p. 100\)](#)
- [GetRegexPatternSet \(p. 104\)](#)
- [GetRuleGroup \(p. 107\)](#)
- [GetSampledRequests \(p. 118\)](#)
- [GetWebACL \(p. 122\)](#)
- [GetWebACLForResource \(p. 147\)](#)
- [ListAvailableManagedRuleGroups \(p. 172\)](#)
- [ListAvailableManagedRuleGroupVersions \(p. 175\)](#)
- [ListIPSets \(p. 179\)](#)
- [ListLoggingConfigurations \(p. 182\)](#)
- [ListManagedRuleSets \(p. 186\)](#)
- [ListMobileSdkReleases \(p. 189\)](#)
- [ListRegexPatternSets \(p. 192\)](#)
- [ListResourcesForWebACL \(p. 195\)](#)
- [ListRuleGroups \(p. 198\)](#)
- [ListTagsForResource \(p. 201\)](#)
- [ListWebACLS \(p. 204\)](#)
- [PutLoggingConfiguration \(p. 207\)](#)
- [PutManagedRuleSetVersions \(p. 212\)](#)
- [PutPermissionPolicy \(p. 216\)](#)
- [TagResource \(p. 219\)](#)
- [UntagResource \(p. 222\)](#)
- [UpdateIPSet \(p. 224\)](#)
- [UpdateManagedRuleSetVersionExpiryDate \(p. 229\)](#)
- [UpdateRegexPatternSet \(p. 233\)](#)
- [UpdateRuleGroup \(p. 237\)](#)
- [UpdateWebACL \(p. 250\)](#)

AssociateWebACL

Service: AWS WAFV2

Associates a web ACL with a regional application resource, to protect the resource. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

For Amazon CloudFront, don't use this call. Instead, use your CloudFront distribution configuration. To associate a web ACL, in the CloudFront call `UpdateDistribution`, set the web ACL ID to the Amazon Resource Name (ARN) of the web ACL. For information, see [UpdateDistribution](#).

When you make changes to web ACLs or web ACL components, like rules and rule groups, AWS WAF propagates the changes everywhere that the web ACL and its components are stored and used. Your changes are applied within seconds, but there might be a brief period of inconsistency when the changes have arrived in some places and not in others. So, for example, if you change a rule action setting, the action might be the old action in one area and the new action in another area. Or if you add an IP address to an IP set used in a blocking rule, the new address might briefly be blocked in one area while still allowed in another. This temporary inconsistency can occur when you first associate a web ACL with an AWS resource and when you change a web ACL that is already associated with a resource. Generally, any inconsistencies of this type last only a few seconds.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceArn (p. 9)

The Amazon Resource Name (ARN) of the resource to associate with the web ACL.

The ARN must 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 Amazon API Gateway REST API: `arn:aws:apigateway:region::/restapis/api-id/stages/stage-name`
- For an AWS AppSync GraphQL API: `arn:aws:appsync:region:account-id:apis/GraphQLApiId`

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\S.*`

Required: Yes

WebACLArn (p. 9)

The Amazon Resource Name (ARN) of the web ACL that you want to associate with the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\S.*

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem.
Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFUnavailableEntityException

AWS WAF couldn't retrieve a resource that you specified for this operation. Verify the resources that you are specifying in your request parameters and then retry the operation.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)

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

CheckCapacity

Service: AWS WAFV2

Returns the web ACL capacity unit (WCU) requirements for a specified scope and set of rules. You can use this to check the capacity requirements for the rules you want to use in a [RuleGroup \(p. 872\)](#) or [WebACL \(p. 900\)](#).

AWS WAF uses WCUs to calculate and control the operating resources that are used to run your rules, rule groups, and web ACLs. AWS WAF calculates capacity differently for each rule type, to reflect the relative cost of each rule. Simple rules that cost little to run use fewer WCUs than more complex rules that use more processing power. Rule group capacity is fixed at creation, which helps users plan their web ACL WCU usage when they use a rule group. The WCU limit for web ACLs is 1,500.

Request Syntax

```
{
  "Rules": [
    {
      "Action": {
        "Allow": {
          "CustomRequestHandling": {
            "InsertHeaders": [
              {
                "Name": "string",
                "Value": "string"
              }
            ]
          }
        },
        "Block": {
          "CustomResponse": {
            "CustomResponseBodyKey": "string",
            "ResponseCode": number,
            "ResponseHeaders": [
              {
                "Name": "string",
                "Value": "string"
              }
            ]
          }
        },
        "Captcha": {
          "CustomRequestHandling": {
            "InsertHeaders": [
              {
                "Name": "string",
                "Value": "string"
              }
            ]
          }
        },
        "Count": {
          "CustomRequestHandling": {
            "InsertHeaders": [
              {
                "Name": "string",
                "Value": "string"
              }
            ]
          }
        }
      }
    }
  ]
}
```

```

"CaptchaConfig": {
    "ImmunityTimeProperty": {
        "ImmunityTime": number
    }
},
"Name": "string",
"OverrideAction": {
    "Count": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        },
        "None": {}
    }
},
"Priority": number,
"RuleLabels": [
    {
        "Name": "string"
    }
],
"Statement": {
    "AndStatement": {
        "Statements": [
            "Statement"
        ]
    },
    "ByteMatchStatement": {
        "FieldToMatch": {
            "AllQueryArguments": {},
            "Body": {
                "OversizeHandling": "string"
            },
            "Cookies": {
                "MatchPattern": {
                    "All": {},
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Headers": {
                "MatchPattern": {
                    "All": {},
                    "ExcludedHeaders": [ "string" ],
                    "IncludedHeaders": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "JsonBody": {
                "InvalidFallbackBehavior": "string",
                "MatchPattern": {
                    "All": {},
                    "IncludedPaths": [ "string" ]
                },
                "MatchType": "string"
            }
        ]
    }
}
}

```

```
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Method": {
    },
    "QueryString": {
    },
    "SingleHeader": {
        "Name": "string"
    },
    "SingleQueryArgument": {
        "Name": "string"
    },
    "UriPath": {
    }
},
"PositionalConstraint": "string",
"SearchString": blob,
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
]
},
"GeoMatchStatement": {
    "CountryCodes": [ "string" ],
    "ForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string"
    }
},
"IPSetReferenceStatement": {
    "ARN": "string",
    "IPSetForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string",
        "Position": "string"
    }
},
"LabelMatchStatement": {
    "Key": "string",
    "Scope": "string"
},
"ManagedRuleGroupStatement": {
    "ExcludedRules": [
        {
            "Name": "string"
        }
    ],
    "ManagedRuleGroupConfigs": [
        {
            "LoginPath": "string",
            "PasswordField": {
                "Identifier": "string"
            },
            "PayloadType": "string",
            "UsernameField": {
                "Identifier": "string"
            }
        }
    ],
    "Name": "string",
    "ScopeDownStatement": "Statement",
    "VendorName": "string",
    "Version": "string"
}
```

```
        },
        "NotStatement": {
            "Statement": "Statement"
        },
        "OrStatement": {
            "Statements": [
                "Statement"
            ]
        },
        "RateBasedStatement": {
            "AggregateKeyType": "string",
            "ForwardedIPConfig": {
                "FallbackBehavior": "string",
                "HeaderName": "string"
            },
            "Limit": number,
            "ScopeDownStatement": "Statement"
        },
        "RegexMatchStatement": {
            "FieldToMatch": {
                "AllQueryArguments": {
                },
                "Body": {
                    "OversizeHandling": "string"
                },
                "Cookies": {
                    "MatchPattern": {
                        "All": {
                        },
                        "ExcludedCookies": [ "string" ],
                        "IncludedCookies": [ "string" ]
                    },
                    "MatchScope": "string",
                    "OversizeHandling": "string"
                },
                "Headers": {
                    "MatchPattern": {
                        "All": {
                        },
                        "ExcludedHeaders": [ "string" ],
                        "IncludedHeaders": [ "string" ]
                    },
                    "MatchScope": "string",
                    "OversizeHandling": "string"
                },
                "JsonBody": {
                    "InvalidFallbackBehavior": "string",
                    "MatchPattern": {
                        "All": {
                        },
                        "IncludedPaths": [ "string" ]
                    },
                    "MatchScope": "string",
                    "OversizeHandling": "string"
                },
                "Method": {
                },
                "QueryString": {
                },
                "SingleHeader": {
                    "Name": "string"
                },
                "SingleQueryArgument": {
                    "Name": "string"
                },
                "UriPath": {

```

```
        }
    },
    "RegexString": "string",
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
"RegexPatternSetReferenceStatement": {
    "ARN": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
}
```

```

        ],
},
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [
        {
            "Name": "string"
        }
    ],
},
"SizeConstraintStatement": {
    "ComparisonOperator": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "Size": number,
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
}

```

```

        }
    ],
},
"SqlMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
"XssMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        }
    }
}

```

```
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Headers": {
                "MatchPattern": {
                    "All": {
                        },
                        "ExcludedHeaders": [ "string" ],
                        "IncludedHeaders": [ "string" ]
                    },
                    "MatchScope": "string",
                    "OversizeHandling": "string"
                },
                "JsonBody": {
                    "InvalidFallbackBehavior": "string",
                    "MatchPattern": {
                        "All": {
                            },
                            "IncludedPaths": [ "string" ]
                        },
                        "MatchScope": "string",
                        "OversizeHandling": "string"
                    },
                    "Method": {
                    },
                    "QueryString": {
                    },
                    "SingleHeader": {
                        "Name": "string"
                    },
                    "SingleQueryArgument": {
                        "Name": "string"
                    },
                    "UriPath": {
                    }
                },
                "TextTransformations": [
                    {
                        "Priority": number,
                        "Type": "string"
                    }
                ]
            },
            "VisibilityConfig": {
                "CloudWatchMetricsEnabled": boolean,
                "MetricName": "string",
                "SampledRequestsEnabled": boolean
            }
        },
        "Scope": "string"
    }
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Rules \(p. 12\)](#)

An array of [Rule \(p. 868\)](#) that you're configuring to use in a rule group or web ACL.

Type: Array of [Rule \(p. 868\)](#) objects

Required: Yes

[Scope \(p. 12\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Syntax

```
{  
    "Capacity": 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.

[Capacity \(p. 20\)](#)

The capacity required by the rules and scope.

Type: Long

Valid Range: Minimum value of 0.

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFExpiredManagedRuleGroupVersionException

The operation failed because the specified version for the managed rule group has expired. You can retrieve the available versions for the managed rule group by calling [ListAvailableManagedRuleGroupVersions \(p. 175\)](#).

HTTP Status Code: 400

WAFFinalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFLInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFLInvalidResourceException

AWS WAF couldn't perform the operation because the resource that you requested isn't valid. Check the resource, and try again.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFLNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFLSubscriptionNotFoundException

You tried to use a managed rule group that's available by subscription, but you aren't subscribed to it yet.

HTTP Status Code: 400

WAFLUnavailableEntityException

AWS WAF couldn't retrieve a resource that you specified for this operation. Verify the resources that you are specifying in your request parameters and then retry the operation.

HTTP Status Code: 400

See Also

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

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

CreateIPSet

Service: AWS WAFV2

Creates an [IPSet \(p. 818\)](#), which you use to identify web requests that originate from specific IP addresses or ranges of IP addresses. For example, if you're receiving a lot of requests from a range of IP addresses, you can configure AWS WAF to block them using an IPSet that lists those IP addresses.

Request Syntax

```
{  
    "Addresses": [ "string" ],  
    "Description": "string",  
    "IPAddressVersion": "string",  
    "Name": "string",  
    "Scope": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Addresses (p. 23)

Contains an array of strings that specifies zero or more IP addresses or blocks of IP addresses in Classless Inter-Domain Routing (CIDR) notation. AWS WAF supports all IPv4 and IPv6 CIDR ranges except for /0.

Example address strings:

- To configure AWS WAF to allow, block, or count requests that originated from the IP address 192.0.2.44, specify 192.0.2.44/32.
- To configure AWS WAF to allow, block, or count requests that originated from IP addresses from 192.0.2.0 to 192.0.2.255, specify 192.0.2.0/24.
- To configure AWS WAF to allow, block, or count requests that originated from the IP address 1111:0000:0000:0000:0000:0000:0111, specify 1111:0000:0000:0000:0000:0000:0111/128.
- To configure AWS WAF to allow, block, or count requests that originated from IP addresses 1111:0000:0000:0000:0000:0000 to 1111:0000:0000:ffff:ffff:ffff, specify 1111:0000:0000:0000:0000:0000/64.

For more information about CIDR notation, see the Wikipedia entry [Classless Inter-Domain Routing](#).

Example JSON Addresses specifications:

- Empty array: "Addresses": []
- Array with one address: "Addresses": ["192.0.2.44/32"]
- Array with three addresses: "Addresses": ["192.0.2.44/32", "192.0.2.0/24", "192.0.0.0/16"]
- INVALID specification: "Addresses": [""] INVALID

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `.*\$.*`

Required: Yes

Description (p. 23)

A description of the IP set that helps with identification.

Type: String

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

Pattern: `^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\\\$]+[\w+=:#@/\-,\.]\$`

Required: No

IPAddressVersion (p. 23)

The version of the IP addresses, either IPV4 or IPV6.

Type: String

Valid Values: IPV4 | IPV6

Required: Yes

Name (p. 23)

The name of the IP set. You cannot change the name of an IPSet after you create it.

Type: String

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

Pattern: `^[\w\-\-]+\$`

Required: Yes

Scope (p. 23)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Tags (p. 23)

An array of key:value pairs to associate with the resource.

Type: Array of [Tag \(p. 890\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

Response Syntax

```
{  
  "Summary": {  
    "ARN": "string",  
    "Description": "string",  
    "Id": "string",  
    "LockToken": "string",  
    "Name": "string"  
  }  
}
```

Response Elements

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

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

Summary (p. 25)

High-level information about an [IPSet \(p. 818\)](#), returned by operations like create and list. This provides information like the ID, that you can use to retrieve and manage an [IPSet](#), and the ARN, that you provide to the [IPSetReferenceStatement \(p. 822\)](#) to use the address set in a [Rule \(p. 868\)](#).

Type: [IPSetSummary \(p. 823\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WADuplicateItemException

AWS WAF couldn't perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.

- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of webACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

WAFTagOperationException

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

WAFTagOperationInternalErrorException

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

CreateRegexPatternSet

Service: AWS WAFV2

Creates a [RegexPatternSet \(p. 862\)](#), which you reference in a [RegexPatternSetReferenceStatement \(p. 864\)](#), to have AWS WAF inspect a web request component for the specified patterns.

Request Syntax

```
{  
    "Description": "string",  
    "Name": "string",  
    "RegularExpressionList": [  
        {  
            "RegexString": "string"  
        }  
    ],  
    "Scope": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Description (p. 27)

A description of the set that helps with identification.

Type: String

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

Pattern: ^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\\s]+[\w+=:#@/\-,\.]\$

Required: No

Name (p. 27)

The name of the set. You cannot change the name after you create the set.

Type: String

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

Pattern: ^[\w\-\-]+\$

Required: Yes

RegularExpressionList (p. 27)

Array of regular expression strings.

Type: Array of [Regex \(p. 860\)](#) objects

Required: Yes

[Scope \(p. 27\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

[Tags \(p. 27\)](#)

An array of key:value pairs to associate with the resource.

Type: Array of [Tag \(p. 890\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

Response Syntax

```
{  
    "Summary": {  
        "ARN": "string",  
        "Description": "string",  
        "Id": "string",  
        "LockToken": "string",  
        "Name": "string"  
    }  
}
```

Response Elements

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

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

[Summary \(p. 28\)](#)

High-level information about a [RegexPatternSet \(p. 862\)](#), returned by operations like create and list. This provides information like the ID, that you can use to retrieve and manage a RegexPatternSet, and the ARN, that you provide to the [RegexPatternSetReferenceStatement \(p. 864\)](#) to use the pattern set in a [Rule \(p. 868\)](#).

Type: [RegexPatternSetSummary \(p. 865\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDuplicateItemException

AWS WAF couldn't perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400

WAFFinalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFinalOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFFinalParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

WAFTagOperationException

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

WAFTagOperationInternalErrorException

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

CreateRuleGroup

Service: AWS WAFV2

Creates a [RuleGroup \(p. 872\)](#) per the specifications provided.

A rule group defines a collection of rules to inspect and control web requests that you can use in a [WebACL \(p. 900\)](#). When you create a rule group, you define an immutable capacity limit. If you update a rule group, you must stay within the capacity. This allows others to reuse the rule group with confidence in its capacity requirements.

Request Syntax

```
{  
    "Capacity": number,  
    "CustomResponseBodies": {  
        "string": {  
            "Content": "string",  
            "ContentType": "string"  
        }  
    },  
    "Description": "string",  
    "Name": "string",  
    "Rules": [  
        {  
            "Action": {  
                "Allow": {  
                    "CustomRequestHandling": {  
                        "InsertHeaders": [  
                            {  
                                "Name": "string",  
                                "Value": "string"  
                            }  
                        ]  
                    }  
                },  
                "Block": {  
                    "CustomResponse": {  
                        "CustomResponseBodyKey": "string",  
                        "ResponseCode": number,  
                        "ResponseHeaders": [  
                            {  
                                "Name": "string",  
                                "Value": "string"  
                            }  
                        ]  
                    }  
                },  
                "Captcha": {  
                    "CustomRequestHandling": {  
                        "InsertHeaders": [  
                            {  
                                "Name": "string",  
                                "Value": "string"  
                            }  
                        ]  
                    }  
                },  
                "Count": {  
                    "CustomRequestHandling": {  
                        "InsertHeaders": [  
                            {  
                                "Name": "string",  
                                "Value": "string"  
                            }  
                        ]  
                    }  
                }  
            }  
        }  
    ]  
}
```

```

        }
    ],
}
},
"CaptchaConfig": {
    "ImmunityTimeProperty": {
        "ImmunityTime": number
    }
},
"Name": "string",
"OverrideAction": {
    "Count": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        },
        "None": {}
    }
},
"Priority": number,
"RuleLabels": [
    {
        "Name": "string"
    }
],
"Statement": {
    "AndStatement": {
        "Statements": [
            "Statement"
        ]
    },
    "ByteMatchStatement": {
        "FieldToMatch": {
            "AllQueryArguments": {}
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {}
            },
            "ExcludedCookies": [ "string" ],
            "IncludedCookies": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Headers": {
        "MatchPattern": {
            "All": {}
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",

```

```

    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"PositionalConstraint": "string",
"SearchString": blob,
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
]
},
"GeoMatchStatement": {
    "CountryCodes": [ "string" ],
    "ForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string"
    }
},
"IPSetReferenceStatement": {
    "ARN": "string",
    "IPSetForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string",
        "Position": "string"
    }
},
"LabelMatchStatement": {
    "Key": "string",
    "Scope": "string"
},
"ManagedRuleGroupStatement": {
    "ExcludedRules": [
        {
            "Name": "string"
        }
    ],
    "ManagedRuleGroupConfigs": [
        {
            "LoginPath": "string",
            "PasswordField": {
                "Identifier": "string"
            },
            "PayloadType": "string",
            "UsernameField": {
                "Identifier": "string"
            }
        }
    ]
}

```

```

        ],
        "Name": "string",
        "ScopeDownStatement": "Statement",
        "VendorName": "string",
        "Version": "string"
    },
    "NotStatement": {
        "Statement": "Statement"
    },
    "OrStatement": {
        "Statements": [
            "Statement"
        ]
    },
    "RateBasedStatement": {
        "AggregateKeyType": "string",
        "ForwardedIPConfig": {
            "FallbackBehavior": "string",
            "HeaderName": "string"
        },
        "Limit": number,
        "ScopeDownStatement": "Statement"
    },
    "RegexMatchStatement": {
        "FieldToMatch": {
            "AllQueryArguments": {
            },
            "Body": {
                "OversizeHandling": "string"
            },
            "Cookies": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Headers": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedHeaders": [ "string" ],
                    "IncludedHeaders": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "JsonBody": {
                "InvalidFallbackBehavior": "string",
                "MatchPattern": {
                    "All": {
                    },
                    "IncludedPaths": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Method": {
            },
            "QueryString": {
            },
            "SingleHeader": {
                "Name": "string"
            }
        }
    }
}

```

```

},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"RegexString": "string",
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"RegexPatternSetReferenceStatement": {
    "ARN": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
},

```

```

    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ],
    "RuleGroupReferenceStatement": {
        "ARN": "string",
        "ExcludedRules": [
            {
                "Name": "string"
            }
        ]
    },
    "SizeConstraintStatement": {
        "ComparisonOperator": "string",
        "FieldToMatch": {
            "AllQueryArguments": {},
            "Body": {
                "OversizeHandling": "string"
            },
            "Cookies": {
                "MatchPattern": {
                    "All": {}
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {}
            },
            "ExcludedHeaders": [ "string" ],
            "IncludedHeaders": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "JsonBody": {
        "InvalidFallbackBehavior": "string",
        "MatchPattern": {
            "All": {}
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},

```

```

    "Size": number,
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ],
    "SqlMatchStatement": {
        "FieldToMatch": {
            "AllQueryArguments": {},
            "Body": {
                "OversizeHandling": "string"
            },
            "Cookies": {
                "MatchPattern": {
                    "All": {}
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {}
            },
            "ExcludedHeaders": [ "string" ],
            "IncludedHeaders": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "JsonBody": {
        "InvalidFallbackBehavior": "string",
        "MatchPattern": {
            "All": {}
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {},
"QueryString": {},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {}
},
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
]
},
"XssMatchStatement": {

```

```

"FieldToMatch": {
    "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Headers": {
                "MatchPattern": {
                    "All": {
                        },
                        "ExcludedHeaders": [ "string" ],
                        "IncludedHeaders": [ "string" ]
                    },
                    "MatchScope": "string",
                    "OversizeHandling": "string"
                },
                "JsonBody": {
                    "InvalidFallbackBehavior": "string",
                    "MatchPattern": {
                        "All": {
                            },
                            "IncludedPaths": [ "string" ]
                        },
                        "MatchScope": "string",
                        "OversizeHandling": "string"
                    },
                    "Method": {
                    },
                    "QueryString": {
                    },
                    "SingleHeader": {
                        "Name": "string"
                    },
                    "SingleQueryArgument": {
                        "Name": "string"
                    },
                    "UriPath": {
                    }
                },
                "TextTransformations": [
                    {
                        "Priority": number,
                        "Type": "string"
                    }
                ]
            },
            "VisibilityConfig": {
                "CloudWatchMetricsEnabled": boolean,
                "MetricName": "string",
                "SampledRequestsEnabled": boolean
            }
        },
        "Scope": "string",
        "Tags": [

```

```
{  
    "Key": "string",  
    "Value": "string"  
}  
],  
"VisibilityConfig": {  
    "CloudWatchMetricsEnabled": boolean,  
    "MetricName": "string",  
    "SampledRequestsEnabled": boolean  
}  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Capacity \(p. 31\)](#)

The web ACL capacity units (WCUs) required for this rule group.

When you create your own rule group, you define this, and you cannot change it after creation. When you add or modify the rules in a rule group, AWS WAF enforces this limit. You can check the capacity for a set of rules using [CheckCapacity \(p. 12\)](#).

AWS WAF uses WCUs to calculate and control the operating resources that are used to run your rules, rule groups, and web ACLs. AWS WAF calculates capacity differently for each rule type, to reflect the relative cost of each rule. Simple rules that cost little to run use fewer WCUs than more complex rules that use more processing power. Rule group capacity is fixed at creation, which helps users plan their web ACL WCU usage when they use a rule group. The WCU limit for web ACLs is 1,500.

Type: Long

Valid Range: Minimum value of 1.

Required: Yes

[CustomResponseBodies \(p. 31\)](#)

A map of custom response keys and content bodies. When you create a rule with a block action, you can send a custom response to the web request. You define these for the rule group, and then use them in the rules that you define in the rule group.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](#) in the [AWS WAF Developer Guide](#).

For information about the limits on count and size for custom request and response settings, see [AWS WAF quotas](#) in the [AWS WAF Developer Guide](#).

Type: String to [CustomResponseBody \(p. 797\)](#) object map

Map Entries: Maximum number of items.

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

Key Pattern: ^[\w\-\]+\$

Required: No

Description (p. 31)

A description of the rule group that helps with identification.

Type: String

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

Pattern: ^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\\s]+[\w+=:#@/\-,\.]\$

Required: No

Name (p. 31)

The name of the rule group. You cannot change the name of a rule group after you create it.

Type: String

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

Pattern: ^[\w\[-]+\$

Required: Yes

Rules (p. 31)

The [Rule \(p. 868\)](#) statements used to identify the web requests that you want to allow, block, or count. Each rule includes one top-level statement that AWS WAF uses to identify matching web requests, and parameters that govern how AWS WAF handles them.

Type: Array of [Rule \(p. 868\)](#) objects

Required: No

Scope (p. 31)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Tags (p. 31)

An array of key:value pairs to associate with the resource.

Type: Array of [Tag \(p. 890\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

VisibilityConfig (p. 31)

Defines and enables Amazon CloudWatch metrics and web request sample collection.

Type: [VisibilityConfig \(p. 899\)](#) object

Required: Yes

Response Syntax

```
{  
  "Summary": {  
    "ARN": "string",  
    "Description": "string",  
    "Id": "string",  
    "LockToken": "string",  
    "Name": "string"  
  }  
}
```

Response Elements

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

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

Summary (p. 41)

High-level information about a [RuleGroup \(p. 872\)](#), returned by operations like create and list. This provides information like the ID, that you can use to retrieve and manage a RuleGroup, and the ARN, that you provide to the [RuleGroupReferenceStatement \(p. 875\)](#) to use the rule group in a [Rule \(p. 868\)](#).

Type: [RuleGroupSummary \(p. 876\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WADuplicateItemException

AWS WAF couldn't perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.

- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

WAFSubscriptionNotFoundException

You tried to use a managed rule group that's available by subscription, but you aren't subscribed to it yet.

HTTP Status Code: 400

WAFTagOperationException

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

WAFTagOperationInternalErrorException

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your NoteWebRequestComponentour request.

HTTP Status Code: 500

WAFUnavailableEntityException

AWS WAF couldn't retrieve a resource that you specified for this operation. Verify the resources that you are specifying in your request parameters and then retry the operation.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

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

CreateWebACL

Service: AWS WAFV2

Creates a [WebACL \(p. 900\)](#) per the specifications provided.

A web ACL defines a collection of rules to use to inspect and control web requests. Each rule has an action defined (allow, block, or count) for requests that match the statement of the rule. In the web ACL, you assign a default action to take (allow, block) for any request that does not match any of the rules. The rules in a web ACL can be a combination of the types [Rule \(p. 868\)](#), [RuleGroup \(p. 872\)](#), and managed rule group. You can associate a web ACL with one or more AWS resources to protect. The resources can be an Amazon CloudFront distribution, an Amazon API Gateway REST API, an Application Load Balancer, or an AWS AppSync GraphQL API.

Request Syntax

```
{
  "CaptchaConfig": {
    "ImmunityTimeProperty": {
      "ImmunityTime": number
    }
  },
  "CustomResponseBodies": {
    "string": {
      "Content": "string",
      "ContentType": "string"
    }
  },
  "DefaultAction": {
    "Allow": {
      "CustomRequestHandling": {
        "InsertHeaders": [
          {
            "Name": "string",
            "Value": "string"
          }
        ]
      }
    },
    "Block": {
      "CustomResponse": {
        "CustomResponseBodyKey": "string",
        "ResponseCode": number,
        "ResponseHeaders": [
          {
            "Name": "string",
            "Value": "string"
          }
        ]
      }
    }
  },
  "Description": "string",
  "Name": "string",
  "Rules": [
    {
      "Action": {
        "Allow": {
          "CustomRequestHandling": {
            "InsertHeaders": [
              {
                "Name": "string",
                "Value": "string"
              }
            ]
          }
        }
      }
    }
  ]
}
```

```
        }
    ]
},
"Block": {
    "CustomResponse": {
        "CustomResponseBodyKey": "string",
        "ResponseCode": number,
        "ResponseHeaders": [
            {
                "Name": "string",
                "Value": "string"
            }
        ]
    },
    "Captcha": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        }
    },
    "Count": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        }
    }
},
"CaptchaConfig": {
    "ImmunityTimeProperty": {
        "ImmunityTime": number
    }
},
"Name": "string",
"OverrideAction": {
    "Count": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        },
        "None": {}
    }
},
"Priority": number,
"RuleLabels": [
    {
        "Name": "string"
    }
],
"Statement": {
    "AndStatement": {
        "Statements": [

```

```

        "Statement"
    ],
},
"ByteMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "PositionalConstraint": "string",
    "SearchString": "blob",
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
"GeoMatchStatement": {
    "CountryCodes": [ "string" ],
    "ForwardedIPConfig": {
        "FallbackBehavior": "string",

```

```

        "HeaderName": "string"
    }
},
"IPSetReferenceStatement": {
    "ARN": "string",
    "IPSetForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string",
        "Position": "string"
    }
},
"LabelMatchStatement": {
    "Key": "string",
    "Scope": "string"
},
"ManagedRuleGroupStatement": {
    "ExcludedRules": [
        {
            "Name": "string"
        }
    ],
    "ManagedRuleGroupConfigs": [
        {
            "LoginPath": "string",
            "PasswordField": {
                "Identifier": "string"
            },
            "PayloadType": "string",
            "UsernameField": {
                "Identifier": "string"
            }
        }
    ],
    "Name": "string",
    "ScopeDownStatement": "Statement",
    "VendorName": "string",
    "Version": "string"
},
"NotStatement": {
    "Statement": "Statement"
},
"OrStatement": {
    "Statements": [
        "Statement"
    ]
},
"RateBasedStatement": {
    "AggregateKeyType": "string",
    "ForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string"
    },
    "Limit": number,
    "ScopeDownStatement": "Statement"
},
"RegexMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                }
            },
            "HttpOnly": "string"
        }
    }
}
}
```

```

        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Headers": {
    "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"RegexString": "string",
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
]
},
"RegexPatternSetReferenceStatement": {
    "ARN": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {

```

```
"MatchPattern": {
    "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
            },
            "IncludedPaths": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Method": {
    },
    "QueryString": {
    },
    "SingleHeader": {
        "Name": "string"
    },
    "SingleQueryArgument": {
        "Name": "string"
    },
    "UriPath": {
    }
},
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [
        {
            "Name": "string"
        }
    ]
},
"SizeConstraintStatement": {
    "ComparisonOperator": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Headers": {

```

```
"MatchPattern": {
    "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
            },
            "IncludedPaths": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"Size": number,
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"SqlMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Headers": {
                "MatchPattern": {
                    "All": {
                        },
                        "ExcludedHeaders": [ "string" ],
                        "IncludedHeaders": [ "string" ]
                    },
                    "MatchScope": "string",
                    "OversizeHandling": "string"
                }
            }
        }
    }
}
```

```
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
"XssMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        }
    }
}
```

```
        "OversizeHandling": "string"
    },
    "Method": {
    },
    "QueryString": {
    },
    "SingleHeader": {
        "Name": "string"
    },
    "SingleQueryArgument": {
        "Name": "string"
    },
    "UriPath": {
    }
},
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
}
},
"visibilityConfig": {
    "CloudWatchMetricsEnabled": boolean,
    "MetricName": "string",
    "SampledRequestsEnabled": boolean
}
}
],
"Scope": "string",
"Tags": [
{
    "Key": "string",
    "Value": "string"
}
],
"VisibilityConfig": {
    "CloudWatchMetricsEnabled": boolean,
    "MetricName": "string",
    "SampledRequestsEnabled": boolean
}
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[CaptchaConfig \(p. 44\)](#)

Specifies how AWS WAF should handle CAPTCHA evaluations for rules that don't have their own CaptchaConfig settings. If you don't specify this, AWS WAF uses its default settings for CaptchaConfig.

Type: [CaptchaConfig \(p. 786\)](#) object

Required: No

[CustomResponseBodies \(p. 44\)](#)

A map of custom response keys and content bodies. When you create a rule with a block action, you can send a custom response to the web request. You define these for the web ACL, and then use them in the rules and default actions that you define in the web ACL.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](#) in the [AWS WAF Developer Guide](#).

For information about the limits on count and size for custom request and response settings, see [AWS WAF quotas](#) in the [AWS WAF Developer Guide](#).

Type: String to [CustomResponseBody \(p. 797\)](#) object map

Map Entries: Maximum number of items.

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

Key Pattern: ^[\w\ -]+\$

Required: No

[DefaultAction \(p. 44\)](#)

The action to perform if none of the Rules contained in the WebACL match.

Type: [DefaultAction \(p. 798\)](#) object

Required: Yes

[Description \(p. 44\)](#)

A description of the web ACL that helps with identification.

Type: String

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

Pattern: ^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\s]+[\w+=:#@/\-,\.]\\$

Required: No

[Name \(p. 44\)](#)

The name of the web ACL. You cannot change the name of a web ACL after you create it.

Type: String

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

Pattern: ^[\w\ -]+\$

Required: Yes

[Rules \(p. 44\)](#)

The [Rule \(p. 868\)](#) statements used to identify the web requests that you want to allow, block, or count. Each rule includes one top-level statement that AWS WAF uses to identify matching web requests, and parameters that govern how AWS WAF handles them.

Type: Array of [Rule \(p. 868\)](#) objects

Required: No

[Scope \(p. 44\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

[Tags \(p. 44\)](#)

An array of key:value pairs to associate with the resource.

Type: Array of [Tag \(p. 890\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

[VisibilityConfig \(p. 44\)](#)

Defines and enables Amazon CloudWatch metrics and web request sample collection.

Type: [VisibilityConfig \(p. 899\)](#) object

Required: Yes

Response Syntax

```
{  
  "Summary": {  
    "ARN": "string",  
    "Description": "string",  
    "Id": "string",  
    "LockToken": "string",  
    "Name": "string"  
  }  
}
```

Response Elements

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

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

[Summary \(p. 54\)](#)

High-level information about a [WebACL \(p. 900\)](#), returned by operations like create and list. This provides information like the ID, that you can use to retrieve and manage a WebACL, and the ARN, that you provide to operations like [AssociateWebACL \(p. 9\)](#).

Type: [WebACLSummary \(p. 904\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFConfigurationWarningException

The operation failed because you are inspecting the web request body, headers, or cookies without specifying how to handle oversize components. Rules that inspect the body must either provide an `OversizeHandling` configuration or they must be preceded by a `SizeConstraintStatement` that blocks the body content from being too large. Rules that inspect the headers or cookies must provide an `OversizeHandling` configuration.

Provide the handling configuration and retry your operation.

Alternately, you can suppress this warning by adding the following tag to the resource that you provide to this operation: Tag (key:`WAF:OversizeFieldsHandlingConstraintOptOut`, value:`true`).

HTTP Status Code: 400

WAFDuplicateItemException

AWS WAF couldn't perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a `WebACL` with a `DefaultAction` that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFInvalidResourceException

AWS WAF couldn't perform the operation because the resource that you requested isn't valid. Check the resource, and try again.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

WAFSubscriptionNotFoundException

You tried to use a managed rule group that's available by subscription, but you aren't subscribed to it yet.

HTTP Status Code: 400

WAFTagOperationException

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

WAFTagOperationInternalErrorException

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your request.

HTTP Status Code: 500

WAFUnavailableEntityException

AWS WAF couldn't retrieve a resource that you specified for this operation. Verify the resources that you are specifying in your request parameters and then retry the operation.

HTTP Status Code: 400

See Also

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

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

DeleteFirewallManagerRuleGroups

Service: AWS WAFV2

Deletes all rule groups that are managed by AWS Firewall Manager for the specified web ACL.

You can only use this if `ManagedByFirewallManager` is false in the specified [WebACL \(p. 900\)](#).

Request Syntax

```
{  
    "WebACLArn": "string",  
    "WebACLLockToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[WebACLArn \(p. 57\)](#)

The Amazon Resource Name (ARN) of the web ACL.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\S.*

Required: Yes

[WebACLLockToken \(p. 57\)](#)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

Response Syntax

```
{  
    "NextWebACLLockToken": "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.

NextWebACLLockToken (p. 57)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: `^[0-9a-f]{8}-({?:[0-9a-f]{4}-}){3}[0-9a-f]{12}$`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a `WebACL` with a `DefaultAction` that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

See Also

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

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

DeleteIPSet

Service: AWS WAFV2

Deletes the specified IPSet (p. 818).

Request Syntax

```
{  
    "Id": "string",  
    "LockToken": "string",  
    "Name": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Id \(p. 60\)](#)

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[LockToken \(p. 60\)](#)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[Name \(p. 60\)](#)

The name of the IP set. You cannot change the name of an IPSet after you create it.

Type: String

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

Pattern: ^[\w\-\]+\$

Required: Yes

[Scope \(p. 60\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFAssociatedItemException

AWS WAF couldn't perform the operation because your resource is being used by another resource or it's associated with another resource.

For `DeleteWebACL`, you will only get this exception if the web ACL is still associated with a regional resource. Deleting a web ACL that is still associated with an Amazon CloudFront distribution won't get this exception.

HTTP Status Code: 400

WAFFinalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFinalOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFFinalParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a `WebACL` with a `DefaultAction` that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

WAFTagOperationException

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

WAFTagOperationInternalErrorException

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DeleteLoggingConfiguration

Service: AWS WAFV2

Deletes the [LoggingConfiguration](#) (p. 832) from the specified web ACL.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 1083).

The request accepts the following data in JSON format.

ResourceArn (p. 63)

The Amazon Resource Name (ARN) of the web ACL from which you want to delete the [LoggingConfiguration](#) (p. 832).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\S.*

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1085).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.

- You tried to update a `WebACL` with a `DefaultAction` that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

See Also

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

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

DeletePermissionPolicy

Service: AWS WAFV2

Permanently deletes an IAM policy from the specified rule group.

You must be the owner of the rule group to perform this operation.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ResourceArn \(p. 65\)](#)

The Amazon Resource Name (ARN) of the rule group from which you want to delete the policy.

You must be the owner of the rule group to perform this operation.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\S.*

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

[WAFFInternalErrorException](#)

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem.
Retry your request.

HTTP Status Code: 500

[WAFFInvalidParameterException](#)

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).

- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

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

DeleteRegexPatternSet

Service: AWS WAFV2

Deletes the specified [RegexPatternSet](#) (p. 862).

Request Syntax

```
{  
    "Id": "string",  
    "LockToken": "string",  
    "Name": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Id \(p. 67\)](#)

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[LockToken \(p. 67\)](#)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[Name \(p. 67\)](#)

The name of the set. You cannot change the name after you create the set.

Type: String

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

Pattern: ^[\w\-\]+\$

Required: Yes

[Scope \(p. 67\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFAssociatedItemException

AWS WAF couldn't perform the operation because your resource is being used by another resource or it's associated with another resource.

For `DeleteWebACL`, you will only get this exception if the web ACL is still associated with a regional resource. Deleting a web ACL that is still associated with an Amazon CloudFront distribution won't get this exception.

HTTP Status Code: 400

WAFFinalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFinalOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFFinalParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a `WebACL` with a `DefaultAction` that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

WAFTagOperationException

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

WAFTagOperationInternalErrorException

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DeleteRuleGroup

Service: AWS WAFV2

Deletes the specified [RuleGroup \(p. 872\)](#).

Request Syntax

```
{  
    "Id": "string",  
    "LockToken": "string",  
    "Name": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Id \(p. 70\)](#)

A unique identifier for the rule group. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[LockToken \(p. 70\)](#)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[Name \(p. 70\)](#)

The name of the rule group. You cannot change the name of a rule group after you create it.

Type: String

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

Pattern: ^[\w\-\]+\$

Required: Yes

[Scope \(p. 70\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFAssociatedItemException

AWS WAF couldn't perform the operation because your resource is being used by another resource or it's associated with another resource.

For `DeleteWebACL`, you will only get this exception if the web ACL is still associated with a regional resource. Deleting a web ACL that is still associated with an Amazon CloudFront distribution won't get this exception.

HTTP Status Code: 400

WAFFinalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFinalOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFFinalParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a `WebACL` with a `DefaultAction` that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

WAFTagOperationException

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

WAFTagOperationInternalErrorException

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DeleteWebACL

Service: AWS WAFV2

Deletes the specified [WebACL \(p. 900\)](#).

You can only use this if `ManagedByFirewallManager` is false in the specified [WebACL \(p. 900\)](#).

Note

Before deleting any web ACL, first disassociate it from all resources.

- To retrieve a list of the resources that are associated with a web ACL, use the following calls:
 - For regional resources, call [ListResourcesForWebACL \(p. 195\)](#).
 - For Amazon CloudFront distributions, use the CloudFront call `ListDistributionsByWebACLId`. For information, see [ListDistributionsByWebACLId](#).
- To disassociate a resource from a web ACL, use the following calls:
 - For regional resources, call [DisassociateWebACL \(p. 82\)](#).
 - For Amazon CloudFront distributions, provide an empty web ACL ID in the CloudFront call `UpdateDistribution`. For information, see [UpdateDistribution](#).

Request Syntax

```
{  
    "Id": "string",  
    "LockToken": "string",  
    "Name": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Id (p. 73)

The unique identifier for the web ACL. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

LockToken (p. 73)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

Name (p. 73)

The name of the web ACL. You cannot change the name of a web ACL after you create it.

Type: String

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

Pattern: ^[\w\-\]+\$

Required: Yes

Scope (p. 73)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFAssociatedItemException

AWS WAF couldn't perform the operation because your resource is being used by another resource or it's associated with another resource.

For `DeleteWebACL`, you will only get this exception if the web ACL is still associated with a regional resource. Deleting a web ACL that is still associated with an Amazon CloudFront distribution won't get this exception.

HTTP Status Code: 400

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

WAFTagOperationException

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

WAFTagOperationExceptionInternalErrorException

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

DescribeManagedRuleGroup

Service: AWS WAFV2

Provides high-level information for a managed rule group, including descriptions of the rules.

Request Syntax

```
{  
    "Name": "string",  
    "Scope": "string",  
    "VendorName": "string",  
    "VersionName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Name (p. 77)

The name of the managed rule group. You use this, along with the vendor name, to identify the rule group.

Type: String

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

Pattern: ^[\w\-\]+\$

Required: Yes

Scope (p. 77)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

VendorName (p. 77)

The name of the managed rule group vendor. You use this, along with the rule group name, to identify the rule group.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

VersionName (p. 77)

The version of the rule group. You can only use a version that is not scheduled for expiration. If you don't provide this, AWS WAF uses the vendor's default version.

Type: String

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

Pattern: `^[\w#:\.\/-]+$`

Required: No

Response Syntax

```
{
  "AvailableLabels": [
    {
      "Name": "string"
    }
  ],
  "Capacity": number,
  "ConsumedLabels": [
    {
      "Name": "string"
    }
  ],
  "LabelNamespace": "string",
  "Rules": [
    {
      "Action": {
        "Allow": {
          "CustomRequestHandling": {
            "InsertHeaders": [
              {
                "Name": "string",
                "Value": "string"
              }
            ]
          }
        },
        "Block": {
          "CustomResponse": {
            "CustomResponseBodyKey": "string",
            "ResponseCode": number,
            "ResponseHeaders": [
              {
                "Name": "string",
                "Value": "string"
              }
            ]
          }
        },
        "Captcha": {
          "CustomRequestHandling": {
            "InsertHeaders": [
              {
                "Name": "string",
                "Value": "string"
              }
            ]
          }
        }
      }
    }
  ]
}
```

```
        }
    ],
},
"Count": {
    "CustomRequestHandling": {
        "InsertHeaders": [
            {
                "Name": "string",
                "Value": "string"
            }
        ]
    },
    "Name": "string"
},
"SnsTopicArn": "string",
"VersionName": "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.

[AvailableLabels \(p. 78\)](#)

The labels that one or more rules in this rule group add to matching web requests. These labels are defined in the [RuleLabels](#) for a [Rule \(p. 868\)](#).

Type: Array of [LabelSummary \(p. 831\)](#) objects

[Capacity \(p. 78\)](#)

The web ACL capacity units (WCUs) required for this rule group. AWS WAF uses web ACL capacity units (WCU) to calculate and control the operating resources that are used to run your rules, rule groups, and web ACLs. AWS WAF calculates capacity differently for each rule type, to reflect each rule's relative cost. Rule group capacity is fixed at creation, so users can plan their web ACL WCU usage when they use a rule group. The WCU limit for web ACLs is 1,500.

Type: Long

Valid Range: Minimum value of 1.

[ConsumedLabels \(p. 78\)](#)

The labels that one or more rules in this rule group match against in label match statements. These labels are defined in a [LabelMatchStatement](#) specification, in the [Statement \(p. 886\)](#) definition of a rule.

Type: Array of [LabelSummary \(p. 831\)](#) objects

[LabelNamespace \(p. 78\)](#)

The label namespace prefix for this rule group. All labels added by rules in this rule group have this prefix.

- The syntax for the label namespace prefix for a managed rule group is the following:

```
awsawf:managed:<vendor>:<rule group name>
```

- When a rule with a label matches a web request, AWS WAF adds the fully qualified label to the request. A fully qualified label is made up of the label namespace from the rule group or web ACL where the rule is defined and the label from the rule, separated by a colon:

```
<label namespace>:<label from rule>
```

Type: String

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

Pattern: ^[0-9A-Za-z_\-\:]+"

[Rules \(p. 78\)](#)

Type: Array of [RuleSummary \(p. 878\)](#) objects

[SnsTopicArn \(p. 78\)](#)

The Amazon resource name (ARN) of the Amazon Simple Notification Service SNS topic that's used to record changes to the managed rule group. You can subscribe to the SNS topic to receive notifications when the managed rule group is modified, such as for new versions and for version expiration. For more information, see the [Amazon Simple Notification Service Developer Guide](#).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\\$.*

[VersionName \(p. 78\)](#)

The managed rule group's version.

Type: String

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

Pattern: ^[\w#:\.\\-]+\$

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFExpiredManagedRuleGroupVersionException

The operation failed because the specified version for the managed rule group has expired. You can retrieve the available versions for the managed rule group by calling [ListAvailableManagedRuleGroupVersions \(p. 175\)](#).

HTTP Status Code: 400

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFInvalidResourceException

AWS WAF couldn't perform the operation because the resource that you requested isn't valid. Check the resource, and try again.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

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

DisassociateWebACL

Service: AWS WAFV2

Disassociates the specified regional application resource from any existing web ACL association. A resource can have at most one web ACL association. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

For Amazon CloudFront, don't use this call. Instead, use your CloudFront distribution configuration. To disassociate a web ACL, provide an empty web ACL ID in the CloudFront call `UpdateDistribution`. For information, see [UpdateDistribution](#).

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceArn (p. 82)

The Amazon Resource Name (ARN) of the resource to disassociate from the web ACL.

The ARN must 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 Amazon API Gateway REST API: `arn:aws:apigateway:region::/restapis/api-id/stages/stage-name`
- For an AWS AppSync GraphQL API: `arn:aws:appsync:region:account-id:apis/GraphQLApiId`

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\$.*`

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

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

GenerateMobileSdkReleaseUrl

Service: AWS WAFV2

Generates a presigned download URL for the specified release of the mobile SDK.

The mobile SDK is not generally available. Customers who have access to the mobile SDK can use it to establish and manage AWS Security Token Service (AWS STS) security tokens for use in HTTP(S) requests from a mobile device to AWS WAF. For more information, see [AWS WAF client application integration](#) in the *AWS WAF Developer Guide*.

Request Syntax

```
{  
    "Platform": "string",  
    "ReleaseVersion": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Platform (p. 84)

The device platform.

Type: String

Valid Values: IOS | ANDROID

Required: Yes

ReleaseVersion (p. 84)

The release version. For the latest available version, specify LATEST.

Type: String

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

Pattern: ^[\w#:\\.\\-/]+\$

Required: Yes

Response Syntax

```
{  
    "Url": "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.

[Url \(p. 84\)](#)

The presigned download URL for the specified SDK release.

Type: String

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetIPSet

Service: AWS WAFV2

Retrieves the specified [IPSet \(p. 818\)](#).

Request Syntax

```
{  
    "Id": "string",  
    "Name": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Id \(p. 86\)](#)

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[Name \(p. 86\)](#)

The name of the IP set. You cannot change the name of an IPSet after you create it.

Type: String

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

Pattern: ^[\w\-\]+\$

Required: Yes

[Scope \(p. 86\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Syntax

```
{  
    "IPSet": {  
        "Addresses": [ "string" ],  
        "ARN": "string",  
        "Description": "string",  
        "Id": "string",  
        "IPAddressVersion": "string",  
        "Name": "string"  
    },  
    "LockToken": "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.

IPSet (p. 87)

Type: [IPSet \(p. 818\)](#) object

LockToken (p. 87)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetLoggingConfiguration

Service: AWS WAFV2

Returns the [LoggingConfiguration \(p. 832\)](#) for the specified web ACL.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceArn ([p. 89](#))

The Amazon Resource Name (ARN) of the web ACL for which you want to get the [LoggingConfiguration \(p. 832\)](#).

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "LoggingConfiguration": {  
        "LogDestinationConfigs": [ "string" ],  
        "LoggingFilter": {  
            "DefaultBehavior": "string",  
            "Filters": [  
                {  
                    "Behavior": "string",  
                    "Conditions": [  
                        {  
                            "ActionCondition": {  
                                "Action": "string"  
                            },  
                            "LabelNameCondition": {  
                                "LabelName": "string"  
                            }  
                        }  
                    ],  
                    "Requirement": "string"  
                }  
            ]  
        },  
        "ManagedByFirewallManager": boolean,  
        "RedactedFields": [  
            {  
                "Field": "string",  
                "Type": "string"  
            }  
        ]  
    }  
}
```

```
"AllQueryArguments": {  
},  
"Body": {  
    "OversizeHandling": "string"  
},  
"Cookies": {  
    "MatchPattern": {  
        "All": {  
        },  
        "ExcludedCookies": [ "string" ],  
        "IncludedCookies": [ "string" ]  
    },  
    "MatchScope": "string",  
    "OversizeHandling": "string"  
},  
"Headers": {  
    "MatchPattern": {  
        "All": {  
        },  
        "ExcludedHeaders": [ "string" ],  
        "IncludedHeaders": [ "string" ]  
    },  
    "MatchScope": "string",  
    "OversizeHandling": "string"  
},  
"JsonBody": {  
    "InvalidFallbackBehavior": "string",  
    "MatchPattern": {  
        "All": {  
        },  
        "IncludedPaths": [ "string" ]  
    },  
    "MatchScope": "string",  
    "OversizeHandling": "string"  
},  
"Method": {  
},  
"QueryString": {  
},  
"SingleHeader": {  
    "Name": "string"  
},  
"SingleQueryArgument": {  
    "Name": "string"  
},  
"UriPath": {  
}  
}  
],  
"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.

[LoggingConfiguration \(p. 89\)](#)

The [LoggingConfiguration \(p. 832\)](#) for the specified web ACL.

Type: [LoggingConfiguration \(p. 832\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a `WebACL` with a `DefaultAction` that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetManagedRuleSet

Service: AWS WAFV2

Retrieves the specified managed rule set.

Note

This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers.

Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are `ListManagedRuleSets`, `GetManagedRuleSet`, `PutManagedRuleSetVersions`, and `UpdateManagedRuleSetVersionExpiryDate`.

Request Syntax

```
{  
    "Id": "string",  
    "Name": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Id (p. 92)

A unique identifier for the managed rule set. The ID is returned in the responses to commands like `list`. You provide it to operations like `get` and `update`.

Type: String

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

Pattern: ^[0-9a-f]{8}-(:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

Name (p. 92)

The name of the managed rule set. You use this, along with the rule set ID, to identify the rule set.

This name is assigned to the corresponding managed rule group, which your customers can access and use.

Type: String

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

Pattern: ^[\w\-\-]+\$

Required: Yes

Scope (p. 92)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Syntax

```
{  
    "LockToken": "string",  
    "ManagedRuleSet": {  
        "ARN": "string",  
        "Description": "string",  
        "Id": "string",  
        "LabelNamespace": "string",  
        "Name": "string",  
        "PublishedVersions": {  
            "string" : {  
                "AssociatedRuleGroupArn": "string",  
                "Capacity": number,  
                "ExpiryTimestamp": number,  
                "ForecastedLifetime": number,  
                "LastUpdateTimestamp": number,  
                "PublishTimestamp": number  
            }  
        },  
        "RecommendedVersion": "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.

[LockToken \(p. 93\)](#)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

[ManagedRuleSet \(p. 93\)](#)

The managed rule set that you requested.

Type: [ManagedRuleSet \(p. 842\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem.
Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetMobileSdkRelease

Service: AWS WAFV2

Retrieves information for the specified mobile SDK release, including release notes and tags.

The mobile SDK is not generally available. Customers who have access to the mobile SDK can use it to establish and manage AWS Security Token Service (AWS STS) security tokens for use in HTTP(S) requests from a mobile device to AWS WAF. For more information, see [AWS WAF client application integration](#) in the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "Platform": "string",  
    "ReleaseVersion": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Platform \(p. 95\)](#)

The device platform.

Type: String

Valid Values: IOS | ANDROID

Required: Yes

[ReleaseVersion \(p. 95\)](#)

The release version. For the latest available version, specify LATEST.

Type: String

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

Pattern: ^[\w#:\.\/-]+\$

Required: Yes

Response Syntax

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

```
    "Timestamp": 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.

[MobileSdkRelease \(p. 95\)](#)

Information for a specified SDK release, including release notes and tags.

Type: [MobileSdkRelease \(p. 850\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem.
Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

GetPermissionPolicy

Service: AWS WAFV2

Returns the IAM policy that is attached to the specified rule group.

You must be the owner of the rule group to perform this operation.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ResourceArn \(p. 98\)](#)

The Amazon Resource Name (ARN) of the rule group for which you want to get the policy.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "Policy": "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.

[Policy \(p. 98\)](#)

The IAM policy that is attached to the specified rule group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 395000.

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetRateBasedStatementManagedKeys

Service: AWS WAFV2

Retrieves the keys that are currently blocked by a rate-based rule instance. The maximum number of managed keys that can be blocked for a single rate-based rule instance is 10,000. If more than 10,000 addresses exceed the rate limit, those with the highest rates are blocked.

For a rate-based rule that you've defined inside a rule group, provide the name of the rule group reference statement in your request, in addition to the rate-based rule name and the web ACL name.

AWS WAF monitors web requests and manages keys independently for each unique combination of web ACL, optional rule group, and rate-based rule. For example, if you define a rate-based rule inside a rule group, and then use the rule group in a web ACL, AWS WAF monitors web requests and manages keys for that web ACL, rule group reference statement, and rate-based rule instance. If you use the same rule group in a second web ACL, AWS WAF monitors web requests and manages keys for this second usage completely independent of your first.

Request Syntax

```
{  
    "RuleGroupRuleName": "string",  
    "RuleName": "string",  
    "Scope": "string",  
    "WebACLId": "string",  
    "WebACLName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

RuleGroupRuleName (p. 100)

The name of the rule group reference statement in your web ACL. This is required only when you have the rate-based rule nested inside a rule group.

Type: String

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

Pattern: ^[\w\-\-]+\$

Required: No

RuleName (p. 100)

The name of the rate-based rule to get the keys for. If you have the rule defined inside a rule group that you're using in your web ACL, also provide the name of the rule group reference statement in the request parameter RuleGroupRuleName.

Type: String

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

Pattern: ^[\w\-\-]+\$

Required: Yes

[Scope \(p. 100\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

[WebACLId \(p. 100\)](#)

The unique identifier for the web ACL. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

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

Pattern: `^[0-9a-f]{8}-(:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: Yes

[WebACLName \(p. 100\)](#)

The name of the web ACL. You cannot change the name of a web ACL after you create it.

Type: String

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

Pattern: `^[\w\-\]+$`

Required: Yes

Response Syntax

```
{  
    "ManagedKeysIPV4": {  
        "Addresses": [ "string" ],  
        "IPAddressVersion": "string"  
    },  
    "ManagedKeysIPV6": {  
        "Addresses": [ "string" ],  
        "IPAddressVersion": "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.

[ManagedKeysIPv4 \(p. 101\)](#)

The keys that are of Internet Protocol version 4 (IPv4).

Type: [RateBasedStatementManagedKeysIPSet \(p. 859\)](#) object

[ManagedKeysIPv6 \(p. 101\)](#)

The keys that are of Internet Protocol version 6 (IPv6).

Type: [RateBasedStatementManagedKeysIPSet \(p. 859\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem.
Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

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

GetRegexPatternSet

Service: AWS WAFV2

Retrieves the specified [RegexPatternSet \(p. 862\)](#).

Request Syntax

```
{  
    "Id": "string",  
    "Name": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Id \(p. 104\)](#)

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[Name \(p. 104\)](#)

The name of the set. You cannot change the name after you create the set.

Type: String

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

Pattern: ^[\w\-\]+\$

Required: Yes

[Scope \(p. 104\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Syntax

```
{  
    "LockToken": "string",  
    "RegexPatternSet": {  
        "ARN": "string",  
        "Description": "string",  
        "Id": "string",  
        "Name": "string",  
        "RegularExpressionList": [  
            {  
                "RegularExpression": "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.

LockToken (p. 105)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: `^[0-9a-f]{8}-(:[0-9a-f]{4})-{3}[0-9a-f]{12}$`

RegexPatternSet (p. 105)

Type: [RegexPatternSet](#) (p. 862) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1085).

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetRuleGroup

Service: AWS WAFV2

Retrieves the specified [RuleGroup \(p. 872\)](#).

Request Syntax

```
{  
    "ARN": "string",  
    "Id": "string",  
    "Name": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ARN \(p. 107\)](#)

The Amazon Resource Name (ARN) of the entity.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\S.*

Required: No

[Id \(p. 107\)](#)

A unique identifier for the rule group. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

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

Pattern: ^[0-9a-f]{8}-([0-9a-f]{4})-{3}[0-9a-f]{12}\$

Required: No

[Name \(p. 107\)](#)

The name of the rule group. You cannot change the name of a rule group after you create it.

Type: String

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

Pattern: ^[\w\-\-]+\$

Required: No

[Scope \(p. 107\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: No

Response Syntax

```
{
  "LockToken": "string",
  "RuleGroup": {
    "ARN": "string",
    "AvailableLabels": [
      {
        "Name": "string"
      }
    ],
    "Capacity": number,
    "ConsumedLabels": [
      {
        "Name": "string"
      }
    ],
    "CustomResponseBodies": {
      "string" : {
        "Content": "string",
        "ContentType": "string"
      }
    },
    "Description": "string",
    "Id": "string",
    "LabelNamespace": "string",
    "Name": "string",
    "Rules": [
      {
        "Action": {
          "Allow": {
            "CustomRequestHandling": {
              "InsertHeaders": [
                {
                  "Name": "string",
                  "Value": "string"
                }
              ]
            }
          },
          "Block": {
            "CustomResponse": {
              "CustomResponseBodyKey": "string",
              "ResponseCode": number,
              "ResponseHeaders": [
                {
                  "Name": "string",
                  "Value": "string"
                }
              ]
            }
          }
        }
      }
    ]
  }
}
```

```
        },
        "Captcha": {
            "CustomRequestHandling": {
                "InsertHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            }
        },
        "Count": {
            "CustomRequestHandling": {
                "InsertHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            }
        }
    },
    "CaptchaConfig": {
        "ImmunityTimeProperty": {
            "ImmunityTime": number
        }
    },
    "Name": "string",
    "OverrideAction": {
        "Count": {
            "CustomRequestHandling": {
                "InsertHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            }
        },
        "None": {
        }
    },
    "Priority": number,
    "RuleLabels": [
        {
            "Name": "string"
        }
    ],
    "Statement": {
        "AndStatement": {
            "Statements": [
                "Statement"
            ]
        },
        "ByteMatchStatement": {
            "FieldToMatch": {
                "AllQueryArguments": {
                },
                "Body": {
                    "OversizeHandling": "string"
                },
                "Cookies": {
                    "MatchPattern": {
                        "All": {
                        },
                        "ExcludedCookies": [ "string" ],
                        "Not": {
                        }
                    }
                }
            }
        }
    }
}
```

```

        "IncludedCookies": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Headers": {
    "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"PositionalConstraint": "string",
"SearchString": blob,
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"GeoMatchStatement": {
    "CountryCodes": [ "string" ],
    "ForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string"
    }
},
"IPSetReferenceStatement": {
    "ARN": "string",
    "IPSetForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string",
        "Position": "string"
    }
},
"LabelMatchStatement": {
    "Key": "string",
    "Scope": "string"
}
},

```

```
"ManagedRuleGroupStatement": {
    "ExcludedRules": [
        {
            "Name": "string"
        }
    ],
    "ManagedRuleGroupConfigs": [
        {
            "LoginPath": "string",
            "PasswordField": {
                "Identifier": "string"
            },
            "PayloadType": "string",
            "UsernameField": {
                "Identifier": "string"
            }
        }
    ],
    "Name": "string",
    "ScopeDownStatement": "Statement",
    "VendorName": "string",
    "Version": "string"
},
"NotStatement": {
    "Statement": "Statement"
},
"OrStatement": {
    "Statements": [
        "Statement"
    ]
},
"RateBasedStatement": {
    "AggregateKeyType": "string",
    "ForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string"
    },
    "Limit": number,
    "ScopeDownStatement": "Statement"
},
"RegexMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        }
    }
}
```

```
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                    },
                    "IncludedPaths": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Method": {
            },
            "QueryString": {
            },
            "SingleHeader": {
                "Name": "string"
            },
            "SingleQueryArgument": {
                "Name": "string"
            },
            "UriPath": {
            }
        },
        "RegexString": "string",
        "TextTransformations": [
            {
                "Priority": number,
                "Type": "string"
            }
        ],
        "RegexPatternSetReferenceStatement": {
            "ARN": "string",
            "FieldToMatch": {
                "AllQueryArguments": {
                },
                "Body": {
                    "OversizeHandling": "string"
                },
                "Cookies": {
                    "MatchPattern": {
                        "All": {
                            },
                            "ExcludedCookies": [ "string" ],
                            "IncludedCookies": [ "string" ]
                        },
                        "MatchScope": "string",
                        "OversizeHandling": "string"
                    },
                    "Headers": {
                        "MatchPattern": {
                            "All": {
                                },
                                "ExcludedHeaders": [ "string" ],
                                "IncludedHeaders": [ "string" ]
                            },
                            "MatchScope": "string",
                            "OversizeHandling": "string"
                        },
                        "JsonBody": {
                            "InvalidFallbackBehavior": "string",
                            "MatchPattern": {
                                "All": {
                                    },
                                    "IncludedPaths": [ "string" ]
                                }
                            }
                        }
                    }
                }
            }
        }
    }
}
```

```
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Method": {
    },
    "QueryString": {
    },
    "SingleHeader": {
        "Name": "string"
    },
    "SingleQueryArgument": {
        "Name": "string"
    },
    "UriPath": {
    }
},
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [
    {
        "Name": "string"
    }
]
},
"SizeConstraintStatement": {
    "ComparisonOperator": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            }
        }
    }
}
```

```
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Method": {
    },
    "QueryString": {
    },
    "SingleHeader": {
        "Name": "string"
    },
    "SingleQueryArgument": {
        "Name": "string"
    },
    "UriPath": {
    }
},
"Size": number,
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"SqlMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        }
},
```

```
"SingleHeader": {  
    "Name": "string"  
},  
"SingleQueryArgument": {  
    "Name": "string"  
},  
"UriPath": {  
}  
},  
"TextTransformations": [  
{  
    "Priority": number,  
    "Type": "string"  
}  
]  
},  
"XssMatchStatement": {  
    "FieldToMatch": {  
        "AllQueryArguments": {  
},  
        "Body": {  
            "OversizeHandling": "string"  
},  
        "Cookies": {  
            "MatchPattern": {  
                "All": {  
},  
                "ExcludedCookies": [ "string" ],  
                "IncludedCookies": [ "string" ]  
},  
            "MatchScope": "string",  
            "OversizeHandling": "string"  
},  
        "Headers": {  
            "MatchPattern": {  
                "All": {  
},  
                "ExcludedHeaders": [ "string" ],  
                "IncludedHeaders": [ "string" ]  
},  
            "MatchScope": "string",  
            "OversizeHandling": "string"  
},  
        "JsonBody": {  
            "InvalidFallbackBehavior": "string",  
            "MatchPattern": {  
                "All": {  
},  
                "IncludedPaths": [ "string" ]  
},  
            "MatchScope": "string",  
            "OversizeHandling": "string"  
},  
        "Method": {  
},  
        "QueryString": {  
},  
        "SingleHeader": {  
            "Name": "string"  
},  
        "SingleQueryArgument": {  
            "Name": "string"  
},  
        "UriPath": {  
}  
},  
}
```

```
        "TextTransformations": [
            {
                "Priority": number,
                "Type": "string"
            }
        ]
    },
    "VisibilityConfig": {
        "CloudWatchMetricsEnabled": boolean,
        "MetricName": "string",
        "SampledRequestsEnabled": boolean
    }
},
"VisibilityConfig": {
    "CloudWatchMetricsEnabled": boolean,
    "MetricName": "string",
    "SampledRequestsEnabled": boolean
}
}
```

Response Elements

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

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

[LockToken \(p. 108\)](#)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: `^[0-9a-f]{8}-({?:[0-9a-f]{4}-}){3}[0-9a-f]{12}$`

[RuleGroup \(p. 108\)](#)

Type: [RuleGroup \(p. 872\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetSampledRequests

Service: AWS WAFV2

Gets detailed information about a specified number of requests--a sample--that AWS WAF randomly selects from among the first 5,000 requests that your AWS resource received during a time range that you choose. You can specify a sample size of up to 500 requests, and you can specify any time range in the previous three hours.

`GetSampledRequests` returns a time range, which is usually the time range that you specified. However, if your resource (such as a CloudFront distribution) received 5,000 requests before the specified time range elapsed, `GetSampledRequests` returns an updated time range. This new time range indicates the actual period during which AWS WAF selected the requests in the sample.

Request Syntax

```
{  
    "MaxItems": number,  
    "RuleMetricName": "string",  
    "Scope": "string",  
    "TimeWindow": {  
        "EndTime": number,  
        "StartTime": number  
    },  
    "WebACLArn": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

MaxItems (p. 118)

The number of requests that you want AWS WAF to return from among the first 5,000 requests that your AWS resource received during the time range. If your resource received fewer requests than the value of `MaxItems`, `GetSampledRequests` returns information about all of them.

Type: Long

Valid Range: Minimum value of 1. Maximum value of 500.

Required: Yes

RuleMetricName (p. 118)

The metric name assigned to the `Rule` or `RuleGroup` for which you want a sample of requests.

Type: String

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

Pattern: ^[\w#:\.\\-\\/]+\$

Required: Yes

Scope (p. 118)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

[TimeWindow \(p. 118\)](#)

The start date and time and the end date and time of the range for which you want GetSampledRequests to return a sample of requests. You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, z. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours. If you specify a start time that's earlier than three hours ago, AWS WAF sets it to three hours ago.

Type: [TimeWindow \(p. 895\)](#) object

Required: Yes

[WebAclArn \(p. 118\)](#)

The Amazon resource name (ARN) of the WebACL for which you want a sample of requests.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\\$.*

Required: Yes

Response Syntax

```
{  
    "PopulationSize": number,  
    "SampledRequests": [  
        {  
            "Action": "string",  
            "CaptchaResponse": {  
                "FailureReason": "string",  
                "ResponseCode": number,  
                "SolveTimestamp": number  
            },  
            "Labels": [  
                {  
                    "Name": "string"  
                }  
            ],  
            "Request": {  
                "ClientIP": "string",  
                "Country": "string",  
                "Headers": [  
                    {  
                        "Name": "string",  
                        "Value": "string"  
                    }  
                ],  
                "Method": "string",  
                "QueryString": "string",  
                "URI": "string"  
            }  
        }  
    ]  
}
```

```
    "HTTPVersion": "string",
    "Method": "string",
    "URI": "string"
},
"RequestHeadersInserted": [
{
    "Name": "string",
    "Value": "string"
}
],
"ResponseCodeSent": number,
"RuleNameWithinRuleGroup": "string",
"Timestamp": number,
"Weight": number
}
],
"TimeWindow": {
    "EndTime": number,
    "StartTime": 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.

[PopulationSize \(p. 119\)](#)

The total number of requests from which GetSampledRequests got a sample of `MaxItems` requests. If `PopulationSize` is less than `MaxItems`, the sample includes every request that your AWS resource received during the specified time range.

Type: Long

[SampledRequests \(p. 119\)](#)

A complex type that contains detailed information about each of the requests in the sample.

Type: Array of [SampledHTTPRequest \(p. 879\)](#) objects

[TimeWindow \(p. 119\)](#)

Usually, `TimeWindow` is the time range that you specified in the `GetSampledRequests` request. However, if your AWS resource received more than 5,000 requests during the time range that you specified in the request, `GetSampledRequests` returns the time range for the first 5,000 requests. Times are in Coordinated Universal Time (UTC) format.

Type: [TimeWindow \(p. 895\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetWebACL

Service: AWS WAFV2

Retrieves the specified [WebACL \(p. 900\)](#).

Request Syntax

```
{  
    "Id": "string",  
    "Name": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Id \(p. 122\)](#)

The unique identifier for the web ACL. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[Name \(p. 122\)](#)

The name of the web ACL. You cannot change the name of a web ACL after you create it.

Type: String

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

Pattern: ^[\w\-\-]+\$

Required: Yes

[Scope \(p. 122\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Syntax

```
{  
    "ApplicationIntegrationURL": "string",  
    "LockToken": "string",  
    "WebACL": {  
        "ARN": "string",  
        "Capacity": number,  
        "CaptchaConfig": {  
            "ImmunityTimeProperty": {  
                "ImmunityTime": number  
            }  
        },  
        "CustomResponseBodies": {  
            "string" : {  
                "Content": "string",  
                "ContentType": "string"  
            }  
        },  
        "DefaultAction": {  
            "Allow": {  
                "CustomRequestHandling": {  
                    "InsertHeaders": [  
                        {  
                            "Name": "string",  
                            "Value": "string"  
                        }  
                    ]  
                }  
            },  
            "Block": {  
                "CustomResponse": {  
                    "CustomResponseBodyKey": "string",  
                    "ResponseCode": number,  
                    "ResponseHeaders": [  
                        {  
                            "Name": "string",  
                            "Value": "string"  
                        }  
                    ]  
                }  
            }  
        },  
        "Description": "string",  
        "Id": "string",  
        "LabelNamespace": "string",  
        "ManagedByFirewallManager": boolean,  
        "Name": "string",  
        "PostProcessFirewallManagerRuleGroups": [  
            {  
                "FirewallManagerStatement": {  
                    "ManagedRuleGroupStatement": {  
                        "ExcludedRules": [  
                            {  
                                "Name": "string"  
                            }  
                        ],  
                        "ManagedRuleGroupConfigs": [  
                            {  
                                "Name": "string"  
                            }  
                        ]  
                    }  
                }  
            }  
        ]  
    }  
}
```

```

    "LoginPath": "string",
    "PasswordField": {
        "Identifier": "string"
    },
    "PayloadType": "string",
    "UsernameField": {
        "Identifier": "string"
    }
}
],
"Name": "string",
"ScopeDownStatement": {
    "AndStatement": {
        "Statements": [
            "Statement"
        ]
    },
    "ByteMatchStatement": {
        "FieldToMatch": {
            "AllQueryArguments": {
            },
            "Body": {
                "OversizeHandling": "string"
            },
            "Cookies": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Headers": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedHeaders": [ "string" ],
                    "IncludedHeaders": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "JsonBody": {
                "InvalidFallbackBehavior": "string",
                "MatchPattern": {
                    "All": {
                    },
                    "IncludedPaths": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Method": {
            },
            "QueryString": {
            },
            "SingleHeader": {
                "Name": "string"
            },
            "SingleQueryArgument": {
                "Name": "string"
            },
            "UriPath": {
            }
}

```

```

        },
        "PositionalConstraint": "string",
        "SearchString": blob,
        "TextTransformations": [
            {
                "Priority": number,
                "Type": "string"
            }
        ]
    },
    "GeoMatchStatement": {
        "CountryCodes": [ "string" ],
        "ForwardedIPConfig": {
            "FallbackBehavior": "string",
            "HeaderName": "string"
        }
    },
    "IPSetReferenceStatement": {
        "ARN": "string",
        "IPSetForwardedIPConfig": {
            "FallbackBehavior": "string",
            "HeaderName": "string",
            "Position": "string"
        }
    },
    "LabelMatchStatement": {
        "Key": "string",
        "Scope": "string"
    },
    "ManagedRuleGroupStatement": "ManagedRuleGroupStatement",
    "NotStatement": {
        "Statement": "Statement"
    },
    "OrStatement": {
        "Statements": [
            "Statement"
        ]
    },
    "RateBasedStatement": {
        "AggregateKeyType": "string",
        "ForwardedIPConfig": {
            "FallbackBehavior": "string",
            "HeaderName": "string"
        },
        "Limit": number,
        "ScopeDownStatement": "Statement"
    },
    "RegexMatchStatement": {
        "FieldToMatch": {
            "AllQueryArguments": {
            },
            "Body": {
                "OversizeHandling": "string"
            },
            "Cookies": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Headers": {
                "MatchPattern": {

```

```
        "All": {
      },
      "ExcludedHeaders": [ "string" ],
      "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
  },
  "JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
      "All": {
        },
        "IncludedPaths": [ "string" ]
      },
      "MatchScope": "string",
      "OversizeHandling": "string"
    },
    "Method": {
    },
    "QueryString": {
    },
    "SingleHeader": {
      "Name": "string"
    },
    "SingleQueryArgument": {
      "Name": "string"
    },
    "UriPath": {
    }
  },
  "RegexString": "string",
  "TextTransformations": [
    {
      "Priority": number,
      "Type": "string"
    }
  ]
},
"RegexPatternSetReferenceStatement": {
  "ARN": "string",
  "FieldToMatch": {
    "AllQueryArguments": {
    },
    "Body": {
      "OversizeHandling": "string"
    },
    "Cookies": {
      "MatchPattern": {
        "All": {
          },
          "ExcludedCookies": [ "string" ],
          "IncludedCookies": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
      },
      "Headers": {
        "MatchPattern": {
          "All": {
            },
            "ExcludedHeaders": [ "string" ],
            "IncludedHeaders": [ "string" ]
          },
          "MatchScope": "string",
          "OversizeHandling": "string"
        }
      }
    }
  }
}
```

```
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [
        {
            "Name": "string"
        }
    ]
},
"SizeConstraintStatement": {
    "ComparisonOperator": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        }
    }
}
```

```
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                    },
                    "IncludedPaths": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Method": {
            },
            "QueryString": {
            },
            "SingleHeader": {
                "Name": "string"
            },
            "SingleQueryArgument": {
                "Name": "string"
            },
            "UriPath": {
            }
        },
        "Size": number,
        "TextTransformations": [
            {
                "Priority": number,
                "Type": "string"
            }
        ]
    },
    "SqlMatchStatement": {
        "FieldToMatch": {
            "AllQueryArguments": {
            },
            "Body": {
                "OversizeHandling": "string"
            },
            "Cookies": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Headers": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedHeaders": [ "string" ],
                    "IncludedHeaders": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "JsonBody": {
                "InvalidFallbackBehavior": "string",
                "MatchPattern": {
                    "All": {
                    },
                    "IncludedPaths": [ "string" ]
                },
                "Method": {
                },
                "QueryString": {
                },
                "SingleHeader": {
                    "Name": "string"
                },
                "SingleQueryArgument": {
                    "Name": "string"
                },
                "UriPath": {
                }
            }
        }
    }
}
```

```
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Method": {
    },
    "QueryString": {
    },
    "SingleHeader": {
        "Name": "string"
    },
    "SingleQueryArgument": {
        "Name": "string"
    },
    "UriPath": {
    }
},
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
],
},
"XssMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        }
    }
}
```

```
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
{
    "VendorName": "string",
    "Version": "string"
},
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [
        {
            "Name": "string"
        }
    ]
},
{
    "Name": "string",
    "OverrideAction": {
        "Count": {
            "CustomRequestHandling": {
                "InsertHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            }
        },
        "None": {}
    }
},
"Priority": number,
"visibilityConfig": {
    "CloudWatchMetricsEnabled": boolean,
    "MetricName": "string",
    "SampledRequestsEnabled": boolean
}
},
"PreProcessFirewallManagerRuleGroups": [
{
    "FirewallManagerStatement": {
        "ManagedRuleGroupStatement": {
            "ExcludedRules": [
                {
                    "Name": "string"
                }
            ],
            "ManagedRuleGroupConfigs": [
                {
                    "LoginPath": "string",
                    "PasswordField": {
                        "Identifier": "string"
                    },
                    "PayloadType": "string",
                    "Type": "string"
                }
            ]
        }
    }
}]]
```

```

        "UsernameField": {
            "Identifier": "string"
        }
    },
    "Name": "string",
    "ScopeDownStatement": {
        "AndStatement": {
            "Statements": [
                "Statement"
            ]
        },
        "ByteMatchStatement": {
            "FieldToMatch": {
                "AllQueryArguments": {
                },
                "Body": {
                    "OversizeHandling": "string"
                },
                "Cookies": {
                    "MatchPattern": {
                        "All": {
                        },
                        "ExcludedCookies": [ "string" ],
                        "IncludedCookies": [ "string" ]
                    },
                    "MatchScope": "string",
                    "OversizeHandling": "string"
                },
                "Headers": {
                    "MatchPattern": {
                        "All": {
                        },
                        "ExcludedHeaders": [ "string" ],
                        "IncludedHeaders": [ "string" ]
                    },
                    "MatchScope": "string",
                    "OversizeHandling": "string"
                },
                "JsonBody": {
                    "InvalidFallbackBehavior": "string",
                    "MatchPattern": {
                        "All": {
                        },
                        "IncludedPaths": [ "string" ]
                    },
                    "MatchScope": "string",
                    "OversizeHandling": "string"
                },
                "Method": {
                },
                "QueryString": {
                },
                "SingleHeader": {
                    "Name": "string"
                },
                "SingleQueryArgument": {
                    "Name": "string"
                },
                "UriPath": {
                }
            },
            "PositionalConstraint": "string",
            "SearchString": "blob",
            "TextTransformations": [
            {

```

```
        "Priority": number,
        "Type": string"
    }
},
"GeoMatchStatement": {
    "CountryCodes": [ string ],
    "ForwardedIPConfig": {
        "FallbackBehavior": string",
        "HeaderName": string"
    }
},
"IPSetReferenceStatement": {
    "ARN": string",
    "IPSetForwardedIPConfig": {
        "FallbackBehavior": string",
        "HeaderName": string",
        "Position": string"
    }
},
"LabelMatchStatement": {
    "Key": string",
    "Scope": string"
},
"ManagedRuleGroupStatement": "ManagedRuleGroupStatement",
"NotStatement": {
    "Statement": "Statement"
},
"OrStatement": {
    "Statements": [
        "Statement"
    ]
},
"RateBasedStatement": {
    "AggregateKeyType": string",
    "ForwardedIPConfig": {
        "FallbackBehavior": string",
        "HeaderName": string"
    },
    "Limit": number,
    "ScopeDownStatement": "Statement"
},
"RegexMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ string ],
                "IncludedCookies": [ string ]
            },
            "MatchScope": string",
            "OversizeHandling": string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ string ],
                "IncludedHeaders": [ string "
            }
        }
    }
}
```

```
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "JsonBody": {
        "InvalidFallbackBehavior": "string",
        "MatchPattern": {
            "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "RegexString": "string",
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
"RegexPatternSetReferenceStatement": {
    "ARN": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {

```

```
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [
    {
        "Name": "string"
    }
]
},
"SizeConstraintStatement": {
    "ComparisonOperator": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {

```

```
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"Size": number,
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"SqlMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        }
}
```

```
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"XssMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
}
```

```

        }
    },
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
"VendorName": "string",
"Version": "string"
},
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [
        {
            "Name": "string"
        }
    ]
},
"Name": "string",
"OverrideAction": {
    "Count": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        },
        "None": {}
    }
},
"Priority": number,
"VisibilityConfig": {
    "CloudWatchMetricsEnabled": boolean,
    "MetricName": "string",
    "SampledRequestsEnabled": boolean
}
],
"Rules": [
    {
        "Action": {
            "Allow": {
                "CustomRequestHandling": {
                    "InsertHeaders": [
                        {
                            "Name": "string",
                            "Value": "string"
                        }
                    ]
                },
                "Block": {
                    "CustomResponse": {
                        "CustomResponseBodyKey": "string",
                        "ResponseCode": number,
                        "ResponseHeaders": [
                            {
                                "Name": "string",
                                "Value": "string"
                            }
                        ]
                    }
                }
            }
        }
    }
]
}
]
```

```

        }
    ]
},
"Captcha": {
    "CustomRequestHandling": {
        "InsertHeaders": [
            {
                "Name": "string",
                "Value": "string"
            }
        ]
    }
},
"Count": {
    "CustomRequestHandling": {
        "InsertHeaders": [
            {
                "Name": "string",
                "Value": "string"
            }
        ]
    }
}
},
"CaptchaConfig": {
    "ImmunityTimeProperty": {
        "ImmunityTime": number
    }
},
"Name": "string",
"OverrideAction": {
    "Count": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        },
        "None": {}
    }
},
"Priority": number,
"RuleLabels": [
    {
        "Name": "string"
    }
],
"Statement": {
    "AndStatement": {
        "Statements": [
            "Statement"
        ]
    }
},
"ByteMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {

```

```

        "All": {
        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Headers": {
    "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"PositionalConstraint": "string",
"SearchString": blob,
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
]
},
"GeoMatchStatement": {
    "CountryCodes": [ "string" ],
    "ForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string"
    }
},
"IPSetReferenceStatement": {
    "ARN": "string",
    "IPSetForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string",
        "Position": "string"
    }
},
"LabelMatchStatement": {

```

```

        "Key": "string",
        "Scope": "string"
    },
    "ManagedRuleGroupStatement": {
        "ExcludedRules": [
            {
                "Name": "string"
            }
        ],
        "ManagedRuleGroupConfigs": [
            {
                "LoginPath": "string",
                "PasswordField": {
                    "Identifier": "string"
                },
                "PayloadType": "string",
                "UsernameField": {
                    "Identifier": "string"
                }
            }
        ],
        "Name": "string",
        "ScopeDownStatement": "Statement",
        "VendorName": "string",
        "Version": "string"
    },
    "NotStatement": {
        "Statement": "Statement"
    },
    "OrStatement": {
        "Statements": [
            "Statement"
        ]
    },
    "RateBasedStatement": {
        "AggregateKeyType": "string",
        "ForwardedIPConfig": {
            "FallbackBehavior": "string",
            "HeaderName": "string"
        },
        "Limit": number,
        "ScopeDownStatement": "Statement"
    },
    "RegexMatchStatement": {
        "FieldToMatch": {
            "AllQueryArguments": {
            },
            "Body": {
                "OversizeHandling": "string"
            },
            "Cookies": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Headers": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedHeaders": [ "string" ],
                    "IncludedHeaders": [ "string" ]
                }
            }
        }
    }
}

```

```

        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "JsonBody": {
        "InvalidFallbackBehavior": "string",
        "MatchPattern": {
            "All": {
            },
            "IncludedPaths": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Method": {
    },
    "QueryString": {
    },
    "SingleHeader": {
        "Name": "string"
    },
    "SingleQueryArgument": {
        "Name": "string"
    },
    "UriPath": {
    }
},
"RegexString": "string",
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"RegexPatternSetReferenceStatement": {
    "ARN": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {

```

```
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [
    {
        "Name": "string"
    }
]
},
"SizeConstraintStatement": {
    "ComparisonOperator": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {

```

```

        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"Size": number,
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"SqlInjectionStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        }
    }
}
]
```

```
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
"XssMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        }
},
```

```
        "UriPath": {
            }
        },
        "TextTransformations": [
            {
                "Priority": number,
                "Type": "string"
            }
        ]
    }
},
"VisibilityConfig": {
    "CloudWatchMetricsEnabled": boolean,
    "MetricName": "string",
    "SampledRequestsEnabled": boolean
}
}
],
"visibilityConfig": {
    "CloudWatchMetricsEnabled": boolean,
    "MetricName": "string",
    "SampledRequestsEnabled": boolean
}
}
}
```

Response Elements

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

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

ApplicationIntegrationURL (p. 123)

The URL to use in SDK integrations with AWS managed rule groups. For example, you can use the integration SDKs with the account takeover prevention managed rule group `AWSManagedRulesATPRuleSet`. This is only populated if you are using a rule group in your web ACL that integrates with your applications in this way. For more information, see [AWS WAF client application integration](#) in the *AWS WAF Developer Guide*.

Type: String

LockToken (p. 123)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: ^[0-9a-f]{8}-(:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

WebACL (p. 123)

The web ACL specification. You can modify the settings in this web ACL and use it to update this web ACL or create a new one.

Type: [WebACL \(p. 900\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetWebACLForResource

Service: AWS WAFV2

Retrieves the [WebACL \(p. 900\)](#) for the specified resource.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceArn (p. 147)

The ARN (Amazon Resource Name) of the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "WebACL": {  
        "ARN": "string",  
        "Capacity": number,  
        "CaptchaConfig": {  
            "ImmunityTimeProperty": {  
                "ImmunityTime": number  
            }  
        },  
        "CustomResponseBodies": {  
            "string" : {  
                "Content": "string",  
                "ContentType": "string"  
            }  
        },  
        "DefaultAction": {  
            "Allow": {  
                "CustomRequestHandling": {  
                    "InsertHeaders": [  
                        {  
                            "Name": "string",  
                            "Value": "string"  
                        }  
                    ]  
                }  
            }  
        },  
        "Block": {  
            "Action": "string",  
            "Priority": number  
        }  
    }  
}
```

```

    "CustomResponse": {
        "CustomResponseBodyKey": "string",
        "ResponseCode": number,
        "ResponseHeaders": [
            {
                "Name": "string",
                "Value": "string"
            }
        ]
    },
    "Description": "string",
    "Id": "string",
    "LabelNamespace": "string",
    "ManagedByFirewallManager": boolean,
    "Name": "string",
    "PostProcessFirewallManagerRuleGroups": [
        {
            "FirewallManagerStatement": {
                "ManagedRuleGroupStatement": {
                    "ExcludedRules": [
                        {
                            "Name": "string"
                        }
                    ],
                    "ManagedRuleGroupConfigs": [
                        {
                            "LoginPath": "string",
                            "PasswordField": {
                                "Identifier": "string"
                            },
                            "PayloadType": "string",
                            "UsernameField": {
                                "Identifier": "string"
                            }
                        }
                    ],
                    "Name": "string",
                    "ScopeDownStatement": {
                        "AndStatement": {
                            "Statements": [
                                "Statement"
                            ]
                        },
                        "ByteMatchStatement": {
                            "FieldToMatch": {
                                "AllQueryArguments": {
                                },
                                "Body": {
                                    "OversizeHandling": "string"
                                },
                                "Cookies": {
                                    "MatchPattern": {
                                        "All": {
                                        },
                                        "ExcludedCookies": [ "string" ],
                                        "IncludedCookies": [ "string" ]
                                    },
                                    "MatchScope": "string",
                                    "OversizeHandling": "string"
                                },
                                "Headers": {
                                    "MatchPattern": {
                                        "All": {
                                        },
                                        "ExcludedHeaders": [ "string" ],
                                        "IncludedHeaders": [ "string" ]
                                    }
                                }
                            }
                        }
                    }
                }
            }
        }
    ]
}

```

```
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"PositionalConstraint": "string",
"SearchString": blob,
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
],
"GeoMatchStatement": {
    "CountryCodes": [ "string" ],
    "ForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string"
    }
},
"IPSetReferenceStatement": {
    "ARN": "string",
    "IPSetForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string",
        "Position": "string"
    }
},
"LabelMatchStatement": {
    "Key": "string",
    "Scope": "string"
},
"ManagedRuleGroupStatement": "ManagedRuleGroupStatement",
"NotStatement": {
    "Statement": "Statement"
},
"OrStatement": {
    "Statements": [
        "Statement"
    ]
},
```

```

"RateBasedStatement": {
    "AggregateKeyType": "string",
    "ForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string"
    },
    "Limit": number,
    "ScopeDownStatement": "Statement"
},
"RegexMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "RegexString": "string",
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
}

```

```

},
"RegexPatternSetReferenceStatement": {
    "ARN": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [
        {
            "Name": "string"
        }
    ]
}
]
}

```

```

},
"SizeConstraintStatement": {
    "ComparisonOperator": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "Size": number,
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
"SqlInjectionMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        }
    }
}

```

```
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
"XssMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        }
    }
}
```

```

        "OversizeHandling": "string"
    },
    "Headers": {
        "MatchPattern": {
            "All": {
            },
            "ExcludedHeaders": [ "string" ],
            "IncludedHeaders": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "JsonBody": {
        "InvalidFallbackBehavior": "string",
        "MatchPattern": {
            "All": {
            },
            "IncludedPaths": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Method": {
    },
    "QueryString": {
    },
    "SingleHeader": {
        "Name": "string"
    },
    "SingleQueryArgument": {
        "Name": "string"
    },
    "UriPath": {
    }
},
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
}
},
"VendorName": "string",
"Version": "string"
},
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [
        {
            "Name": "string"
        }
    ]
},
"Name": "string",
"OverrideAction": {
    "Count": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        }
    }
}

```

```

        },
        "None": {
        }
    },
    "Priority": number,
    "VisibilityConfig": {
        "CloudWatchMetricsEnabled": boolean,
        "MetricName": "string",
        "SampledRequestsEnabled": boolean
    }
}
],
"PreProcessFirewallManagerRuleGroups": [
{
    "FirewallManagerStatement": {
        "ManagedRuleGroupStatement": {
            "ExcludedRules": [
                {
                    "Name": "string"
                }
            ],
            "ManagedRuleGroupConfigs": [
                {
                    "LoginPath": "string",
                    "PasswordField": {
                        "Identifier": "string"
                    },
                    "PayloadType": "string",
                    "UsernameField": {
                        "Identifier": "string"
                    }
                }
            ],
            "Name": "string",
            "ScopeDownStatement": {
                "AndStatement": {
                    "Statements": [
                        "Statement"
                    ]
                },
                "ByteMatchStatement": {
                    "FieldToMatch": {
                        "AllQueryArguments": {
                        },
                        "Body": {
                            "OversizeHandling": "string"
                        },
                        "Cookies": {
                            "MatchPattern": {
                                "All": {
                                },
                                "ExcludedCookies": [ "string" ],
                                "IncludedCookies": [ "string" ]
                            },
                            "MatchScope": "string",
                            "OversizeHandling": "string"
                        },
                        "Headers": {
                            "MatchPattern": {
                                "All": {
                                },
                                "ExcludedHeaders": [ "string" ],
                                "IncludedHeaders": [ "string" ]
                            },
                            "MatchScope": "string",
                            "OversizeHandling": "string"
                        }
                    }
                }
            }
        }
    }
}
]

```

```

},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
            },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"PositionalConstraint": "string",
"SearchString": blob,
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
]
},
"GeoMatchStatement": {
    "CountryCodes": [ "string" ],
    "ForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string"
    }
},
"IPSetReferenceStatement": {
    "ARN": "string",
    "IPSetForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string",
        "Position": "string"
    }
},
"LabelMatchStatement": {
    "Key": "string",
    "Scope": "string"
},
"ManagedRuleGroupStatement": "ManagedRuleGroupStatement",
"NotStatement": {
    "Statement": "Statement"
},
"OrStatement": {
    "Statements": [
        "Statement"
    ]
},
"RateBasedStatement": {
    "AggregateKeyType": "string",
    "ForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string"
    }
}
}

```

```

        },
        "Limit": number,
        "ScopeDownStatement": "Statement"
    },
    "RegexMatchStatement": {
        "FieldToMatch": {
            "AllQueryArguments": {
            },
            "Body": {
                "OversizeHandling": "string"
            },
            "Cookies": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Headers": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedHeaders": [ "string" ],
                    "IncludedHeaders": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "JsonBody": {
                "InvalidFallbackBehavior": "string",
                "MatchPattern": {
                    "All": {
                    },
                    "IncludedPaths": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Method": {
            },
            "QueryString": {
            },
            "SingleHeader": {
                "Name": "string"
            },
            "SingleQueryArgument": {
                "Name": "string"
            },
            "UriPath": {
            }
        },
        "RegexString": "string",
        "TextTransformations": [
            {
                "Priority": number,
                "Type": "string"
            }
        ]
    },
    "RegexPatternSetReferenceStatement": {
        "ARN": "string",
        "FieldToMatch": {
            "AllQueryArguments": {

```

```

},
"Body": {
    "OversizeHandling": "string"
},
"Cookies": {
    "MatchPattern": {
        "All": {
        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Headers": {
    "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [
    {
        "Name": "string"
    }
]
},
"SizeConstraintStatement": {
    "ComparisonOperator": "string",
    "FieldToMatch": {
        "AllQueryArguments": {

```

```
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Headers": {
                "MatchPattern": {
                    "All": {
                        },
                        "ExcludedHeaders": [ "string" ],
                        "IncludedHeaders": [ "string" ]
                    },
                    "MatchScope": "string",
                    "OversizeHandling": "string"
                },
                "JsonBody": {
                    "InvalidFallbackBehavior": "string",
                    "MatchPattern": {
                        "All": {
                            },
                            "IncludedPaths": [ "string" ]
                        },
                        "MatchScope": "string",
                        "OversizeHandling": "string"
                    },
                    "Method": {
                    },
                    "QueryString": {
                    },
                    "SingleHeader": {
                        "Name": "string"
                    },
                    "SingleQueryArgument": {
                        "Name": "string"
                    },
                    "UriPath": {
                    }
                },
                "Size": number,
                "TextTransformations": [
                    {
                        "Priority": number,
                        "Type": "string"
                    }
                ]
            },
            "SqlMatchStatement": {
                "FieldToMatch": {
                    "AllQueryArguments": {
                    },
                    "Body": {
                        "OversizeHandling": "string"
                    },
                    "Cookies": {
                        "MatchPattern": {
                            "All": {
                                }
                            }
                        }
                    }
                }
            }
        }
    }
}
```

```
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Headers": {
    "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"XssMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {

```

```

        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
            },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
}
},
"VendorName": "string",
"Version": "string"
},
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [
        {
            "Name": "string"
        }
    ]
},
"Name": "string",
"OverrideAction": {
    "Count": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        }
    },
    "None": {
    }
}
},
"Priority": number,

```

```

    "VisibilityConfig": {
        "CloudWatchMetricsEnabled": boolean,
        "MetricName": "string",
        "SampledRequestsEnabled": boolean
    }
},
"Rules": [
{
    "Action": {
        "Allow": {
            "CustomRequestHandling": {
                "InsertHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            }
        },
        "Block": {
            "CustomResponse": {
                "CustomResponseBodyKey": "string",
                "ResponseCode": number,
                "ResponseHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            }
        },
        "Captcha": {
            "CustomRequestHandling": {
                "InsertHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            }
        },
        "Count": {
            "CustomRequestHandling": {
                "InsertHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            }
        }
    },
    "CaptchaConfig": {
        "ImmunityTimeProperty": {
            "ImmunityTime": number
        }
    },
    "Name": "string",
    "OverrideAction": {
        "Count": {
            "CustomRequestHandling": {
                "InsertHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            }
        }
    }
}
]
}

```



```

        "UriPath": {
            }
        },
        "PositionalConstraint": "string",
        "SearchString": blob,
        "TextTransformations": [
            {
                "Priority": number,
                "Type": "string"
            }
        ]
    },
    "GeoMatchStatement": {
        "CountryCodes": [ "string" ],
        "ForwardedIPConfig": {
            "FallbackBehavior": "string",
            "HeaderName": "string"
        }
    },
    "IPSetReferenceStatement": {
        "ARN": "string",
        "IPSetForwardedIPConfig": {
            "FallbackBehavior": "string",
            "HeaderName": "string",
            "Position": "string"
        }
    },
    "LabelMatchStatement": {
        "Key": "string",
        "Scope": "string"
    },
    "ManagedRuleGroupStatement": {
        "ExcludedRules": [
            {
                "Name": "string"
            }
        ],
        "ManagedRuleGroupConfigs": [
            {
                "LoginPath": "string",
                "PasswordField": {
                    "Identifier": "string"
                },
                "PayloadType": "string",
                "UsernameField": {
                    "Identifier": "string"
                }
            }
        ],
        "Name": "string",
        "ScopeDownStatement": "Statement",
        "VendorName": "string",
        "Version": "string"
    },
    "NotStatement": {
        "Statement": "Statement"
    },
    "OrStatement": {
        "Statements": [
            "Statement"
        ]
    },
    "RateBasedStatement": {
        "AggregateKeyType": "string",
        "ForwardedIPConfig": {
            "FallbackBehavior": "string",
            "HeaderName": "string"
        }
    }
}

```

```

        "HeaderName": "string"
    },
    "Limit": number,
    "ScopeDownStatement": "Statement"
},
"RegexMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "RegexString": "string",
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
"RegexPatternSetReferenceStatement": {
    "ARN": "string",
    "FieldToMatch": {

```

```

    "AllQueryArguments": {
    },
    "Body": {
        "OversizeHandling": "string"
    },
    "Cookies": {
        "MatchPattern": {
            "All": {
            },
            "ExcludedCookies": [ "string" ],
            "IncludedCookies": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Headers": {
        "MatchPattern": {
            "All": {
            },
            "ExcludedHeaders": [ "string" ],
            "IncludedHeaders": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "JsonBody": {
        "InvalidFallbackBehavior": "string",
        "MatchPattern": {
            "All": {
            },
            "IncludedPaths": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Method": {
    },
    "QueryString": {
    },
    "SingleHeader": {
        "Name": "string"
    },
    "SingleQueryArgument": {
        "Name": "string"
    },
    "UriPath": {
    }
},
    "TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
]
},
    "RuleGroupReferenceStatement": {
        "ARN": "string",
        "ExcludedRules": [
            {
                "Name": "string"
            }
        ]
},
    "SizeConstraintStatement": {
        "ComparisonOperator": "string",
        "FieldToMatch": {

```

```

    "AllQueryArguments": {
    },
    "Body": {
        "OversizeHandling": "string"
    },
    "Cookies": {
        "MatchPattern": {
            "All": {
            },
            "ExcludedCookies": [ "string" ],
            "IncludedCookies": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Headers": {
        "MatchPattern": {
            "All": {
            },
            "ExcludedHeaders": [ "string" ],
            "IncludedHeaders": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "JsonBody": {
        "InvalidFallbackBehavior": "string",
        "MatchPattern": {
            "All": {
            },
            "IncludedPaths": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Method": {
    },
    "QueryString": {
    },
    "SingleHeader": {
        "Name": "string"
    },
    "SingleQueryArgument": {
        "Name": "string"
    },
    "UriPath": {
    }
},
"Size": number,
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
]
},
"SqlMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {

```

```

        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Headers": {
    "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"XssMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {

```

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.

WebACL (p. 147)

The web ACL that is associated with the resource. If there is no associated resource, AWS WAF returns a null web ACL.

Type: [WebACL \(p. 900\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem.
Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFFUnavailableEntityException

AWS WAF couldn't retrieve a resource that you specified for this operation. Verify the resources that you are specifying in your request parameters and then retry the operation.

HTTP Status Code: 400

See Also

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

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

ListAvailableManagedRuleGroups

Service: AWS WAFV2

Retrieves an array of managed rule groups that are available for you to use. This list includes all AWS Managed Rules rule groups and all of the AWS Marketplace managed rule groups that you're subscribed to.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 172)

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a `NextMarker` value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

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

Required: No

NextMarker (p. 172)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\$.*`

Required: No

Scope (p. 172)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Syntax

```
{  
    "ManagedRuleGroups": [  
        {  
            "Description": "string",  
            "Name": "string",  
            "VendorName": "string",  
            "VersioningSupported": boolean  
        }  
    ],  
    "NextMarker": "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.

ManagedRuleGroups (p. 173)

Type: Array of [ManagedRuleGroupSummary \(p. 839\)](#) objects

NextMarker (p. 173)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

See Also

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

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

ListAvailableManagedRuleGroupVersions

Service: AWS WAFV2

Returns a list of the available versions for the specified managed rule group.

Request Syntax

```
{  
    "Limit": number,  
    "Name": "string",  
    "NextMarker": "string",  
    "Scope": "string",  
    "VendorName": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 175)

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a `NextMarker` value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

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

Required: No

Name (p. 175)

The name of the managed rule group. You use this, along with the vendor name, to identify the rule group.

Type: String

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

Pattern: ^[\w\-\]+\$

Required: Yes

NextMarker (p. 175)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: .*\\$.*

Required: No

[Scope \(p. 175\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

[VendorName \(p. 175\)](#)

The name of the managed rule group vendor. You use this, along with the rule group name, to identify the rule group.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "CurrentDefaultVersion": "string",  
    "NextMarker": "string",  
    "Versions": [  
        {  
            "LastUpdateTimestamp": number,  
            "Name": "string"  
        }  
    ]  
}
```

Response Elements

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

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

[CurrentDefaultVersion \(p. 176\)](#)

The name of the version that's currently set as the default.

Type: String

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

Pattern: `^[\w#:\.\/-]+$`

[NextMarker \(p. 176\)](#)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\S.*`

[Versions \(p. 176\)](#)

The versions that are currently available for the specified managed rule group.

Type: Array of [ManagedRuleGroupVersion \(p. 841\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a `DefaultAction` that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

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

ListIPSets

Service: AWS WAFV2

Retrieves an array of [IPSetSummary \(p. 823\)](#) objects for the IP sets that you manage.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Limit \(p. 179\)](#)

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a `NextMarker` value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

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

Required: No

[NextMarker \(p. 179\)](#)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\S.*`

Required: No

[Scope \(p. 179\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Syntax

```
{  
    "IPSets": [  
        {  
            "ARN": "string",  
            "Description": "string",  
            "Id": "string",  
            "LockToken": "string",  
            "Name": "string"  
        }  
    ],  
    "NextMarker": "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.

IPSets (p. 180)

Array of IPSets. This may not be the full list of IPSets that you have defined. See the `Limit` specification for this request.

Type: Array of [IPSetSummary \(p. 823\)](#) objects

NextMarker (p. 180)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

See Also

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

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

ListLoggingConfigurations

Service: AWS WAFV2

Retrieves an array of your [LoggingConfiguration \(p. 832\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Limit \(p. 182\)](#)

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a `NextMarker` value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

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

Required: No

[NextMarker \(p. 182\)](#)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\$.*`

Required: No

[Scope \(p. 182\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Syntax

```
    "LoggingConfigurations": [
        {
            "LogDestinationConfigs": [ "string" ],
            "LoggingFilter": {
                "DefaultBehavior": "string",
                "Filters": [
                    {
                        "Behavior": "string",
                        "Conditions": [
                            {
                                "ActionCondition": {
                                    "Action": "string"
                                },
                                "LabelNameCondition": {
                                    "LabelName": "string"
                                }
                            }
                        ],
                        "Requirement": "string"
                    }
                ]
            },
            "ManagedByFirewallManager": boolean,
            "RedactedFields": [
                {
                    "AllQueryArguments": {
                    },
                    "Body": {
                        "OversizeHandling": "string"
                    },
                    "Cookies": {
                        "MatchPattern": {
                            "All": {
                            },
                            "ExcludedCookies": [ "string" ],
                            "IncludedCookies": [ "string" ]
                        },
                        "MatchScope": "string",
                        "OversizeHandling": "string"
                    },
                    "Headers": {
                        "MatchPattern": {
                            "All": {
                            },
                            "ExcludedHeaders": [ "string" ],
                            "IncludedHeaders": [ "string" ]
                        },
                        "MatchScope": "string",
                        "OversizeHandling": "string"
                    },
                    "JsonBody": {
                        "InvalidFallbackBehavior": "string",
                        "MatchPattern": {
                            "All": {
                            }
                        }
                    }
                }
            ]
        }
    ]
}
```

```
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
],
"ResourceArn": "string"
}
],
"NextMarker": "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.

[LoggingConfigurations \(p. 183\)](#)

Type: Array of [LoggingConfiguration \(p. 832\)](#) objects

[NextMarker \(p. 183\)](#)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

See Also

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

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

ListManagedRuleSets

Service: AWS WAFV2

Retrieves the managed rule sets that you own.

Note

This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers.

Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are `ListManagedRuleSets`, `GetManagedRuleSet`, `PutManagedRuleSetVersions`, and `UpdateManagedRuleSetVersionExpiryDate`.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 186)

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a `NextMarker` value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

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

Required: No

NextMarker (p. 186)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\$.*`

Required: No

Scope (p. 186)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Syntax

```
{  
    "ManagedRuleSets": [  
        {  
            "ARN": "string",  
            "Description": "string",  
            "Id": "string",  
            "LabelNamespace": "string",  
            "LockToken": "string",  
            "Name": "string"  
        }  
    ],  
    "NextMarker": "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.

ManagedRuleSets (p. 187)

Your managed rule sets.

Type: Array of [ManagedRuleSetSummary \(p. 845\)](#) objects

NextMarker (p. 187)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

See Also

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

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

ListMobileSdkReleases

Service: AWS WAFV2

Retrieves a list of the available releases for the mobile SDK and the specified device platform.

The mobile SDK is not generally available. Customers who have access to the mobile SDK can use it to establish and manage AWS Security Token Service (AWS STS) security tokens for use in HTTP(S) requests from a mobile device to AWS WAF. For more information, see [AWS WAF client application integration](#) in the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string",  
    "Platform": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 189)

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a `NextMarker` value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

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

Required: No

NextMarker (p. 189)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\$.*`

Required: No

Platform (p. 189)

The device platform to retrieve the list for.

Type: String

Valid Values: `IOS` | `ANDROID`

Required: Yes

Response Syntax

```
{  
    "NextMarker": "string",  
    "ReleaseSummaries": [  
        {  
            "ReleaseVersion": "string",  
            "Timestamp": 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.

[NextMarker](#) (p. 190)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\S.*`

[ReleaseSummaries](#) (p. 190)

High level information for the available SDK releases.

Type: Array of [ReleaseSummary](#) (p. 867) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1085).

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a `WebACL` with a `DefaultAction` that isn't among the types available at [DefaultAction](#) (p. 798).

- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

See Also

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

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

ListRegexPatternSets

Service: AWS WAFV2

Retrieves an array of [RegexPatternSetSummary \(p. 865\)](#) objects for the regex pattern sets that you manage.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 192)

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a `NextMarker` value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

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

Required: No

NextMarker (p. 192)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\S.*`

Required: No

Scope (p. 192)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Syntax

```
{  
    "NextMarker": "string",  
    "RegexPatternSets": [  
        {  
            "ARN": "string",  
            "Description": "string",  
            "Id": "string",  
            "LockToken": "string",  
            "Name": "string"  
        }  
    ]  
}
```

Response Elements

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

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

[NextMarker \(p. 193\)](#)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\S.*`

[RegexPatternSets \(p. 193\)](#)

Type: Array of [RegexPatternSetSummary \(p. 865\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

See Also

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

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

ListResourcesForWebACL

Service: AWS WAFV2

Retrieves an array of the Amazon Resource Names (ARNs) for the regional resources that are associated with the specified web ACL. If you want the list of Amazon CloudFront resources, use the CloudFront call `ListDistributionsByWebACLId`.

Request Syntax

```
{  
    "ResourceType": "string",  
    "WebACLArn": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ResourceType \(p. 195\)](#)

Used for web ACLs that are scoped for regional applications. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

Type: String

Valid Values: `APPLICATION_LOAD_BALANCER` | `API_GATEWAY` | `APPSYNC`

Required: No

[WebACLArn \(p. 195\)](#)

The Amazon Resource Name (ARN) of the web ACL.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\$.*`

Required: Yes

Response Syntax

```
{  
    "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.

[ResourceArns \(p. 195\)](#)

The array of Amazon Resource Names (ARNs) of the associated resources.

Type: Array of strings

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\\$.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem.
Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

See Also

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

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

- [AWS SDK for Ruby V3](#)

ListRuleGroups

Service: AWS WAFV2

Retrieves an array of [RuleGroupSummary \(p. 876\)](#) objects for the rule groups that you manage.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 198)

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a `NextMarker` value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

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

Required: No

NextMarker (p. 198)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\$.*`

Required: No

Scope (p. 198)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: `CLOUDFRONT` | `REGIONAL`

Required: Yes

Response Syntax

```
{  
    "NextMarker": "string",  
    "RuleGroups": [  
        {  
            "ARN": "string",  
            "Description": "string",  
            "Id": "string",  
            "LockToken": "string",  
            "Name": "string"  
        }  
    ]  
}
```

Response Elements

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

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

NextMarker (p. 199)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\S.*`

RuleGroups (p. 199)

Type: Array of [RuleGroupSummary](#) (p. 876) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1085).

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

See Also

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

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

ListTagsForResource

Service: AWS WAFV2

Retrieves the [TagInfoForResource \(p. 891\)](#) for the specified resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, 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.

You can tag the AWS resources that you manage through AWS WAF: web ACLs, rule groups, IP sets, and regex pattern sets. You can't manage or view tags through the AWS WAF console.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string",  
    "ResourceARN": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Limit \(p. 201\)](#)

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a `NextMarker` value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

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

Required: No

[NextMarker \(p. 201\)](#)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\s.*`

Required: No

[ResourceARN \(p. 201\)](#)

The Amazon Resource Name (ARN) of the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "NextMarker": "string",  
    "TagInfoForResource": [  
        {  
            "ResourceARN": "string",  
            "TagList": [  
                {  
                    "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.

[NextMarker \(p. 202\)](#)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\S.*`

[TagInfoForResource \(p. 202\)](#)

The collection of tagging definitions for the resource.

Type: [TagInfoForResource \(p. 891\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFTagOperationException

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

WAFTagOperationInternalErrorException

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListWebACLs

Service: AWS WAFV2

Retrieves an array of [WebACLSummary \(p. 904\)](#) objects for the web ACLs that you manage.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 204)

The maximum number of objects that you want AWS WAF to return for this request. If more objects are available, in the response, AWS WAF provides a `NextMarker` value that you can use in a subsequent call to get the next batch of objects.

Type: Integer

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

Required: No

NextMarker (p. 204)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\$.*`

Required: No

Scope (p. 204)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: `CLOUDFRONT` | `REGIONAL`

Required: Yes

Response Syntax

```
{  
    "NextMarker": "string",  
    "WebACLS": [  
        {  
            "ARN": "string",  
            "Description": "string",  
            "Id": "string",  
            "LockToken": "string",  
            "Name": "string"  
        }  
    ]  
}
```

Response Elements

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

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

[NextMarker \(p. 205\)](#)

When you request a list of objects with a `Limit` setting, if the number of objects that are still available for retrieval exceeds the limit, AWS WAF returns a `NextMarker` value in the response. To retrieve the next batch of objects, provide the marker from the prior call in your next request.

Type: String

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

Pattern: `.*\S.*`

[WebACLS \(p. 205\)](#)

Type: Array of [WebACLSummary \(p. 904\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

See Also

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

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

PutLoggingConfiguration

Service: AWS WAFV2

Enables the specified [LoggingConfiguration](#) (p. 832), to start logging from a web ACL, according to the configuration provided.

Note

You can define one logging destination per web ACL.

You can access information about the traffic that AWS WAF inspects using the following steps:

1. Create your logging destination. You can use an Amazon CloudWatch Logs log group, an Amazon Simple Storage Service (Amazon S3) bucket, or an Amazon Kinesis Data Firehose. For information about configuring logging destinations and the permissions that are required for each, see [Logging web ACL traffic information](#) in the *AWS WAF Developer Guide*.
2. Associate your logging destination to your web ACL using a PutLoggingConfiguration request.

When you successfully enable logging using a PutLoggingConfiguration request, AWS WAF creates an additional role or policy that is required to write logs to the logging destination. For an Amazon CloudWatch Logs log group, AWS WAF creates a resource policy on the log group. For an Amazon S3 bucket, AWS WAF creates a bucket policy. For an Amazon Kinesis Data Firehose, AWS WAF creates a service-linked role.

For additional information about web ACL logging, see [Logging web ACL traffic information](#) in the *AWS WAF Developer Guide*.

Note

This operation completely replaces the mutable specifications that you already have for the logging configuration with the ones that you provide to this call. To modify the logging configuration, retrieve it by calling [GetLoggingConfiguration](#) (p. 89), update the settings as needed, and then provide the complete logging configuration specification to this call.

Request Syntax

```
{  
    "LoggingConfiguration": {  
        "LogDestinationConfigs": [ "string" ],  
        "LoggingFilter": {  
            "DefaultBehavior": "string",  
            "Filters": [  
                {  
                    "Behavior": "string",  
                    "Conditions": [  
                        {  
                            "ActionCondition": {  
                                "Action": "string"  
                            },  
                            "LabelNameCondition": {  
                                "LabelName": "string"  
                            }  
                        }  
                    ],  
                    "Requirement": "string"  
                }  
            ]  
        },  
        "ManagedByFirewallManager": boolean,  
        "RedactedFields": [  
            {  
                "Field": "string",  
                "Type": "string"  
            }  
        ]  
    }  
}
```

```

    "AllQueryArguments": {
    },
    "Body": {
        "OversizeHandling": "string"
    },
    "Cookies": {
        "MatchPattern": {
            "All": {
            },
            "ExcludedCookies": [ "string" ],
            "IncludedCookies": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Headers": {
        "MatchPattern": {
            "All": {
            },
            "ExcludedHeaders": [ "string" ],
            "IncludedHeaders": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "JsonBody": {
        "InvalidFallbackBehavior": "string",
        "MatchPattern": {
            "All": {
            },
            "IncludedPaths": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Method": {
    },
    "QueryString": {
    },
    "SingleHeader": {
        "Name": "string"
    },
    "SingleQueryArgument": {
        "Name": "string"
    },
    "UriPath": {
    }
},
],
"ResourceArn": "string"
}
}

```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[LoggingConfiguration \(p. 207\)](#)

Type: [LoggingConfiguration \(p. 832\)](#) object

Required: Yes

Response Syntax

```
{
    "LoggingConfiguration": {
        "LogDestinationConfigs": [ "string" ],
        "LoggingFilter": {
            "DefaultBehavior": "string",
            "Filters": [
                {
                    "Behavior": "string",
                    "Conditions": [
                        {
                            "ActionCondition": {
                                "Action": "string"
                            },
                            "LabelNameCondition": {
                                "LabelName": "string"
                            }
                        }
                    ],
                    "Requirement": "string"
                }
            ]
        },
        "ManagedByFirewallManager": boolean,
        "RedactedFields": [
            {
                "AllQueryArguments": {
                },
                "Body": {
                    "OversizeHandling": "string"
                },
                "Cookies": {
                    "MatchPattern": {
                        "All": {
                        },
                        "ExcludedCookies": [ "string" ],
                        "IncludedCookies": [ "string" ]
                    },
                    "MatchScope": "string",
                    "OversizeHandling": "string"
                },
                "Headers": {
                    "MatchPattern": {
                        "All": {
                        },
                        "ExcludedHeaders": [ "string" ],
                        "IncludedHeaders": [ "string" ]
                    },
                    "MatchScope": "string",
                    "OversizeHandling": "string"
                },
                "JsonBody": {
                    "InvalidFallbackBehavior": "string",
                    "MatchPattern": {
                        "All": {
                        },
                        "IncludedPaths": [ "string" ]
                    },
                    "MatchScope": "string",
                    "OversizeHandling": "string"
                }
            }
        ]
    }
}
```

```
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    }
],
"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.

[LoggingConfiguration \(p. 209\)](#)

Type: [LoggingConfiguration \(p. 832\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFLimitsExceeded

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFLogDestinationPermissionIssueException

The operation failed because you don't have the permissions that your logging configuration requires. For information, see [Logging web ACL traffic information](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

WAFServiceLinkedRoleErrorException

AWS WAF is not able to access the service linked role. This can be caused by a previous PutLoggingConfiguration request, which can lock the service linked role for about 20 seconds. Please try your request again. The service linked role can also be locked by a previous DeleteServiceLinkedRole request, which can lock the role for 15 minutes or more. If you recently made a call to DeleteServiceLinkedRole, wait at least 15 minutes and try the request again. If you receive this same exception again, you will have to wait additional time until the role is unlocked.

HTTP Status Code: 400

See Also

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

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

PutManagedRuleSetVersions

Service: AWS WAFV2

Defines the versions of your managed rule set that you are offering to the customers. Customers see your offerings as managed rule groups with versioning.

Note

This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers.

Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are `ListManagedRuleSets`, `GetManagedRuleSet`, `PutManagedRuleSetVersions`, and `UpdateManagedRuleSetVersionExpiryDate`.

Customers retrieve their managed rule group list by calling [ListAvailableManagedRuleGroups \(p. 172\)](#). The name that you provide here for your managed rule set is the name the customer sees for the corresponding managed rule group. Customers can retrieve the available versions for a managed rule group by calling [ListAvailableManagedRuleGroupVersions \(p. 175\)](#). You provide a rule group specification for each version. For each managed rule set, you must specify a version that you recommend using.

To initiate the expiration of a managed rule group version, use [UpdateManagedRuleSetVersionExpiryDate \(p. 229\)](#).

Request Syntax

```
{  
    "Id": "string",  
    "LockToken": "string",  
    "Name": "string",  
    "RecommendedVersion": "string",  
    "Scope": "string",  
    "VersionsToPublish": {  
        "string" : {  
            "AssociatedRuleGroupArn": "string",  
            "ForecastedLifetime": number  
        }  
    }  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Id (p. 212)

A unique identifier for the managed rule set. The ID is returned in the responses to commands like `list`. You provide it to operations like `get` and `update`.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[LockToken \(p. 212\)](#)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: `^ [0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: Yes

[Name \(p. 212\)](#)

The name of the managed rule set. You use this, along with the rule set ID, to identify the rule set.

This name is assigned to the corresponding managed rule group, which your customers can access and use.

Type: String

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

Pattern: `^ [\w\-\]+$`

Required: Yes

[RecommendedVersion \(p. 212\)](#)

The version of the named managed rule group that you'd like your customers to choose, from among your version offerings.

Type: String

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

Pattern: `^ [\w#:\.\/-]+$`

Required: No

[Scope \(p. 212\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: `CLOUDFRONT | REGIONAL`

Required: Yes

[VersionsToPublish \(p. 212\)](#)

The versions of the named managed rule group that you want to offer to your customers.

Type: String to [VersionToPublish \(p. 898\)](#) object map

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

Key Pattern: ^[\w#: \. \-/]+\$

Required: No

Response Syntax

```
{  
    "NextLockToken": "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.

[NextLockToken \(p. 214\)](#)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: ^[0-9a-f]{8}-(:[0-9a-f]{4})-{3}[0-9a-f]{12}\$

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

See Also

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

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

PutPermissionPolicy

Service: AWS WAFV2

Attaches an IAM policy to the specified resource. Use this to share a rule group across accounts.

You must be the owner of the rule group to perform this operation.

This action is subject to the following restrictions:

- You can attach only one policy with each `PutPermissionPolicy` request.
- The ARN in the request must be a valid WAF [RuleGroup \(p. 872\)](#) ARN and the rule group must exist in the same Region.
- The user making the request must be the owner of the rule group.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Policy (p. 216)

The policy to attach to the specified rule group.

The policy specifications must conform to the following:

- The policy must be composed using IAM Policy version 2012-10-17 or version 2015-01-01.
- The policy must include specifications for `Effect`, `Action`, and `Principal`.
- `Effect` must specify `Allow`.
- `Action` must specify `wafv2:CreateWebACL`, `wafv2:UpdateWebACL`, and `wafv2:PutFirewallManagerRuleGroups` and may optionally specify `wafv2:GetRuleGroup`. AWS WAF rejects any extra actions or wildcard actions in the policy.
- The policy must not include a `Resource` parameter.

For more information, see [IAM Policies](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 395000.

Pattern: `.*\S.*`

Required: Yes

ResourceArn (p. 216)

The Amazon Resource Name (ARN) of the [RuleGroup \(p. 872\)](#) to which you want to attach the policy.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\S.*

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem.
Retry your request.

HTTP Status Code: 500

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFFInvalidPermissionPolicyException

The operation failed because the specified policy isn't in the proper format.

The policy specifications must conform to the following:

- The policy must be composed using IAM Policy version 2012-10-17 or version 2015-01-01.
- The policy must include specifications for Effect, Action, and Principal.
- Effect must specify Allow.
- Action must specify wafv2:CreateWebACL, wafv2:UpdateWebACL, and wafv2:PutFirewallManagerRuleGroups and may optionally specify wafv2:GetRuleGroup. AWS WAF rejects any extra actions or wildcard actions in the policy.
- The policy must not include a Resource parameter.

For more information, see [IAM Policies](#).

HTTP Status Code: 400

WAFFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

Examples

Share a rule group with another account

This example illustrates one usage of PutPermissionPolicy.

```
{  
    "Version": "2012-10-17",  
    "Statement": [  
        {  
            "Effect": "Allow",  
            "Principal": {  
                "AWS": "arn:aws:iam::111111111111:user/UserName"  
            },  
            "Action": [  
                "wafv2:CreateWebACL",  
                "wafv2:UpdateWebACL",  
                "wafv2:PutFirewallManagerRuleGroups",  
                "wafv2:GetRuleGroup"  
            ]  
        }  
    ]  
}
```

Example put permission policy call for the CLI:

This example illustrates one usage of PutPermissionPolicy.

```
aws wafv2 put-permission-policy --resource-arn arn:aws:wafv2:us-  
east-1:989717579876:regional/rulegroup/rule_group_with_rules/exampleRuleGroupArn  
--policy '{"Version":"2012-10-17","Statement":[{"Effect":"Allow","Principal":  
{"AWS":"arn:aws:iam::111111111111:user/ExampleUserName"}, "Action":  
["wafv2:UpdateWebACL", "wafv2:CreateWebACL", "wafv2:PutFirewallManagerRuleGroups"]}]}'
```

See Also

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

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

TagResource

Service: AWS WAFV2

Associates tags with the specified AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, 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.

You can tag the AWS resources that you manage through AWS WAF: web ACLs, rule groups, IP sets, and regex pattern sets. You can't manage or view tags through the AWS WAF console.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceARN (p. 219)

The Amazon Resource Name (ARN) of the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\S.*

Required: Yes

Tags (p. 219)

An array of key:value pairs to associate with the resource.

Type: Array of [Tag \(p. 890\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFinalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFLInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFLInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFLNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFTagOperationException

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

WAFTagOperationInternalErrorException

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

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

UntagResource

Service: AWS WAFV2

Disassociates tags from an AWS resource. Tags are key:value pairs that you can associate with AWS resources. For example, the tag key might be "customer" and the tag value might be "companyA." You can specify one or more tags to add to each container. You can add up to 50 tags to each AWS resource.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ResourceARN \(p. 222\)](#)

The Amazon Resource Name (ARN) of the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\S.*

Required: Yes

[TagKeys \(p. 222\)](#)

An array of keys identifying the tags to disassociate from the resource.

Type: Array of strings

Array Members: Minimum number of 1 item.

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

Pattern: ^([\p{L}\p{Z}\p{N}_.:+=\-\@]*)\$

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

[WAFInternalErrorException](#)

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFTagOperationException

An error occurred during the tagging operation. Retry your request.

HTTP Status Code: 400

WAFTagOperationExceptionInternalErrorException

AWS WAF couldn't perform your tagging operation because of an internal error. Retry your `NoteWebRequestComponent` 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateIPSet

Service: AWS WAFV2

Updates the specified IPSet ([p. 818](#)).

Note

This operation completely replaces the mutable specifications that you already have for the IP set with the ones that you provide to this call. To modify the IP set, retrieve it by calling [GetIPSet \(p. 86\)](#), update the settings as needed, and then provide the complete IP set specification to this call.

When you make changes to web ACLs or web ACL components, like rules and rule groups, AWS WAF propagates the changes everywhere that the web ACL and its components are stored and used. Your changes are applied within seconds, but there might be a brief period of inconsistency when the changes have arrived in some places and not in others. So, for example, if you change a rule action setting, the action might be the old action in one area and the new action in another area. Or if you add an IP address to an IP set used in a blocking rule, the new address might briefly be blocked in one area while still allowed in another. This temporary inconsistency can occur when you first associate a web ACL with an AWS resource and when you change a web ACL that is already associated with a resource. Generally, any inconsistencies of this type last only a few seconds.

Request Syntax

```
{  
    "Addresses": [ "string" ],  
    "Description": "string",  
    "Id": "string",  
    "LockToken": "string",  
    "Name": "string",  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Addresses ([p. 224](#))

Contains an array of strings that specifies zero or more IP addresses or blocks of IP addresses in Classless Inter-Domain Routing (CIDR) notation. AWS WAF supports all IPv4 and IPv6 CIDR ranges except for /0.

Example address strings:

- To configure AWS WAF to allow, block, or count requests that originated from the IP address 192.0.2.44, specify 192.0.2.44/32.
- To configure AWS WAF to allow, block, or count requests that originated from IP addresses from 192.0.2.0 to 192.0.2.255, specify 192.0.2.0/24.
- To configure AWS WAF to allow, block, or count requests that originated from the IP address 1111:0000:0000:0000:0000:0000:0111, specify 1111:0000:0000:0000:0000:0000:0111/128.
- To configure AWS WAF to allow, block, or count requests that originated from IP addresses 1111:0000:0000:0000:0000:0000:0000 to 1111:0000:0000:ffff:ffff:ffff:ffff, specify 1111:0000:0000:0000:0000:0000:0000/64.

For more information about CIDR notation, see the Wikipedia entry [Classless Inter-Domain Routing](#).

Example JSON Addresses specifications:

- Empty array: "Addresses": []
- Array with one address: "Addresses": ["192.0.2.44/32"]
- Array with three addresses: "Addresses": ["192.0.2.44/32", "192.0.2.0/24", "192.0.0.0/16"]
- INVALID specification: "Addresses": [""] INVALID

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: .*\S.*

Required: Yes

[Description \(p. 224\)](#)

A description of the IP set that helps with identification.

Type: String

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

Pattern: ^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\\s]+[\w+=:#@/\-,\.]\$

Required: No

[Id \(p. 224\)](#)

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4})-{3}[0-9a-f]{12}\$

Required: Yes

[LockToken \(p. 224\)](#)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4})-{3}[0-9a-f]{12}\$

Required: Yes

[Name \(p. 224\)](#)

The name of the IP set. You cannot change the name of an IPSet after you create it.

Type: String

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

Pattern: ^[\w\-\-]+\$

Required: Yes

[Scope \(p. 224\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: --scope=CLOUDFRONT --region=us-east-1.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

Response Syntax

```
{  
    "NextLockToken": "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.

[NextLockToken \(p. 226\)](#)

A token used for optimistic locking. AWS WAF returns this token to your update requests. You use NextLockToken in the same manner as you use LockToken.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDuplicateItemException

AWS WAF couldn't perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400

WAFFinalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFLInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFLInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFLNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

See Also

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

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

- [AWS SDK for Ruby V3](#)

UpdateManagedRuleSetVersionExpiryDate

Service: AWS WAFV2

Updates the expiration information for your managed rule set. Use this to initiate the expiration of a managed rule group version. After you initiate expiration for a version, AWS WAF excludes it from the response to [ListAvailableManagedRuleGroupVersions \(p. 175\)](#) for the managed rule group.

Note

This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers.

Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are `ListManagedRuleSets`, `GetManagedRuleSet`, `PutManagedRuleSetVersions`, and `UpdateManagedRuleSetVersionExpiryDate`.

Request Syntax

```
{  
    "ExpiryTimestamp": number,  
    "Id": "string",  
    "LockToken": "string",  
    "Name": "string",  
    "Scope": "string",  
    "VersionToExpire": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ExpiryTimestamp \(p. 229\)](#)

The time that you want the version to expire.

Times are in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z".

Type: Timestamp

Required: Yes

[Id \(p. 229\)](#)

A unique identifier for the managed rule set. The ID is returned in the responses to commands like `list`. You provide it to operations like `get` and `update`.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[LockToken \(p. 229\)](#)

A token used for optimistic locking. AWS WAF returns a token to your `get` and `list` requests, to mark the state of the entity at the time of the request. To make changes to the entity associated

with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: `^ [0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: Yes

[Name \(p. 229\)](#)

The name of the managed rule set. You use this, along with the rule set ID, to identify the rule set.

This name is assigned to the corresponding managed rule group, which your customers can access and use.

Type: String

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

Pattern: `^ [\w\-\]+$`

Required: Yes

[Scope \(p. 229\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

[VersionToExpire \(p. 229\)](#)

The version that you want to remove from your list of offerings for the named managed rule group.

Type: String

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

Pattern: `^ [\w#:\.\/-]+$`

Required: Yes

[Response Syntax](#)

```
{
```

```
"ExpiringVersion": "string",
"ExpiryTimestamp": number,
"NextLockToken": "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.

[ExpiringVersion \(p. 230\)](#)

The version that is set to expire.

Type: String

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

Pattern: ^[\w#:\\.\\-/]+\$

[ExpiryTimestamp \(p. 230\)](#)

The time that the version will expire.

Times are in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z".

Type: Timestamp

[NextLockToken \(p. 230\)](#)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a DefaultAction that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

See Also

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

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

UpdateRegexPatternSet

Service: AWS WAFV2

Updates the specified [RegexPatternSet](#) (p. 862).

Note

This operation completely replaces the mutable specifications that you already have for the regex pattern set with the ones that you provide to this call. To modify the regex pattern set, retrieve it by calling [GetRegexPatternSet](#) (p. 104), update the settings as needed, and then provide the complete regex pattern set specification to this call.

When you make changes to web ACLs or web ACL components, like rules and rule groups, AWS WAF propagates the changes everywhere that the web ACL and its components are stored and used. Your changes are applied within seconds, but there might be a brief period of inconsistency when the changes have arrived in some places and not in others. So, for example, if you change a rule action setting, the action might be the old action in one area and the new action in another area. Or if you add an IP address to an IP set used in a blocking rule, the new address might briefly be blocked in one area while still allowed in another. This temporary inconsistency can occur when you first associate a web ACL with an AWS resource and when you change a web ACL that is already associated with a resource. Generally, any inconsistencies of this type last only a few seconds.

Request Syntax

```
{  
    "Description": "string",  
    "Id": "string",  
    "LockToken": "string",  
    "Name": "string",  
    "RegularExpressionList": [  
        {  
            "RegexString": "string"  
        }  
    ],  
    "Scope": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 1083).

The request accepts the following data in JSON format.

Description (p. 233)

A description of the set that helps with identification.

Type: String

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

Pattern: ^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\\s]+[\w+=:#@/\-,\.]\$

Required: No

Id (p. 233)

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

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

Pattern: ^[0-9a-f]{8}-(:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[LockToken \(p. 233\)](#)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: ^[0-9a-f]{8}-(:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[Name \(p. 233\)](#)

The name of the set. You cannot change the name after you create the set.

Type: String

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

Pattern: ^[\w\-\-]+\$

Required: Yes

[RegularExpressionList \(p. 233\)](#)

Type: Array of [Regex \(p. 860\)](#) objects

Required: Yes

[Scope \(p. 233\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint us-east-1.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

[Response Syntax](#)

{

```
    "NextLockToken": "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.

[NextLockToken \(p. 234\)](#)

A token used for optimistic locking. AWS WAF returns this token to your update requests. You use `NextLockToken` in the same manner as you use `LockToken`.

Type: String

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

Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDuplicateItemException

AWS WAF couldn't perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400

WAFFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a `DefaultAction` that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

See Also

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

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

UpdateRuleGroup

Service: AWS WAFV2

Updates the specified RuleGroup (p. 872).

Note

This operation completely replaces the mutable specifications that you already have for the rule group with the ones that you provide to this call. To modify the rule group, retrieve it by calling [GetRuleGroup \(p. 107\)](#), update the settings as needed, and then provide the complete rule group specification to this call.

When you make changes to web ACLs or web ACL components, like rules and rule groups, AWS WAF propagates the changes everywhere that the web ACL and its components are stored and used. Your changes are applied within seconds, but there might be a brief period of inconsistency when the changes have arrived in some places and not in others. So, for example, if you change a rule action setting, the action might be the old action in one area and the new action in another area. Or if you add an IP address to an IP set used in a blocking rule, the new address might briefly be blocked in one area while still allowed in another. This temporary inconsistency can occur when you first associate a web ACL with an AWS resource and when you change a web ACL that is already associated with a resource. Generally, any inconsistencies of this type last only a few seconds.

A rule group defines a collection of rules to inspect and control web requests that you can use in a [WebACL \(p. 900\)](#). When you create a rule group, you define an immutable capacity limit. If you update a rule group, you must stay within the capacity. This allows others to reuse the rule group with confidence in its capacity requirements.

Request Syntax

```
{  
    "CustomResponseBodies": {  
        "string" : {  
            "Content": "string",  
            "ContentType": "string"  
        }  
    },  
    "Description": "string",  
    "Id": "string",  
    "LockToken": "string",  
    "Name": "string",  
    "Rules": [  
        {  
            "Action": {  
                "Allow": {  
                    "CustomRequestHandling": {  
                        "InsertHeaders": [  
                            {  
                                "Name": "string",  
                                "Value": "string"  
                            }  
                        ]  
                    }  
                },  
                "Block": {  
                    "CustomResponse": {  
                        "CustomResponseBodyKey": "string",  
                        "ResponseCode": number,  
                        "ResponseHeaders": [  
                            {  
                                "Name": "string",  
                                "Value": "string"  
                            }  
                        ]  
                    }  
                }  
            }  
        }  
    ]  
}
```

```

        ]
    }
},
"Captcha": {
    "CustomRequestHandling": {
        "InsertHeaders": [
            {
                "Name": "string",
                "Value": "string"
            }
        ]
    }
},
"Count": {
    "CustomRequestHandling": {
        "InsertHeaders": [
            {
                "Name": "string",
                "Value": "string"
            }
        ]
    }
}
},
"CaptchaConfig": {
    "ImmunityTimeProperty": {
        "ImmunityTime": number
    }
},
"Name": "string",
"OverrideAction": {
    "Count": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        },
        "None": {
        }
    }
},
"Priority": number,
"RuleLabels": [
    {
        "Name": "string"
    }
],
"Statement": {
    "AndStatement": {
        "Statements": [
            "Statement"
        ]
    },
    "ByteMatchStatement": {
        "FieldToMatch": {
            "AllQueryArguments": {
            },
            "Body": {
                "OversizeHandling": "string"
            },
            "Cookies": {
                "MatchPattern": {
                    "All": {
                    }
                }
            }
        }
    }
}
}

```

```

        },
        "ExcludedCookies": [ "string" ],
        "IncludedCookies": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Headers": {
    "MatchPattern": {
        "All": {
        },
        "ExcludedHeaders": [ "string" ],
        "IncludedHeaders": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"JsonBody": {
    "InvalidFallbackBehavior": "string",
    "MatchPattern": {
        "All": {
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"PositionalConstraint": "string",
"SearchString": blob,
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
]
},
"GeoMatchStatement": {
    "CountryCodes": [ "string" ],
    "ForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string"
    }
},
"IPSetReferenceStatement": {
    "ARN": "string",
    "IPSetForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string",
        "Position": "string"
    }
},
"LabelMatchStatement": {
    "Key": "string",

```

```

        "Scope": "string"
    },
    "ManagedRuleGroupStatement": {
        "ExcludedRules": [
            {
                "Name": "string"
            }
        ],
        "ManagedRuleGroupConfigs": [
            {
                "LoginPath": "string",
                "PasswordField": {
                    "Identifier": "string"
                },
                "PayloadType": "string",
                "UsernameField": {
                    "Identifier": "string"
                }
            }
        ],
        "Name": "string",
        "ScopeDownStatement": "Statement",
        "VendorName": "string",
        "Version": "string"
    },
    "NotStatement": {
        "Statement": "Statement"
    },
    "OrStatement": {
        "Statements": [
            "Statement"
        ]
    },
    "RateBasedStatement": {
        "AggregateKeyType": "string",
        "ForwardedIPConfig": {
            "FallbackBehavior": "string",
            "HeaderName": "string"
        },
        "Limit": number,
        "ScopeDownStatement": "Statement"
    },
    "RegexMatchStatement": {
        "FieldToMatch": {
            "AllQueryArguments": {
            },
            "Body": {
                "OversizeHandling": "string"
            },
            "Cookies": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Headers": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedHeaders": [ "string" ],
                    "IncludedHeaders": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            }
        }
    }
}

```

```

        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "JsonBody": {
        "InvalidFallbackBehavior": "string",
        "MatchPattern": {
            "All": {
            },
            "IncludedPaths": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Method": {
    },
    "QueryString": {
    },
    "SingleHeader": {
        "Name": "string"
    },
    "SingleQueryArgument": {
        "Name": "string"
    },
    "UriPath": {
    }
},
"RegexString": "string",
"TextTransformations": [
    {
        "Priority": number,
        "Type": "string"
    }
]
},
"RegexPatternSetReferenceStatement": {
    "ARN": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {

```

```
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [
    {
        "Name": "string"
    }
]
},
"SizeConstraintStatement": {
    "ComparisonOperator": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {

```

```
        },
        "IncludedPaths": [ "string" ]
    },
    "MatchScope": "string",
    "OversizeHandling": "string"
},
"Method": {
},
"QueryString": {
},
"SingleHeader": {
    "Name": "string"
},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"Size": number,
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"SqlMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        }
    }
}
```

```
"QueryString": {  
},  
"SingleHeader": {  
    "Name": "string"  
},  
"SingleQueryArgument": {  
    "Name": "string"  
},  
"UriPath": {  
}  
},  
"TextTransformations": [  
{  
    "Priority": number,  
    "Type": "string"  
}  
]  
},  
"XssMatchStatement": {  
    "FieldToMatch": {  
        "AllQueryArguments": {  
},  
        "Body": {  
            "OversizeHandling": "string"  
},  
        "Cookies": {  
            "MatchPattern": {  
                "All": {  
},  
                "ExcludedCookies": [ "string" ],  
                "IncludedCookies": [ "string" ]  
},  
            "MatchScope": "string",  
            "OversizeHandling": "string"  
},  
        "Headers": {  
            "MatchPattern": {  
                "All": {  
},  
                "ExcludedHeaders": [ "string" ],  
                "IncludedHeaders": [ "string" ]  
},  
            "MatchScope": "string",  
            "OversizeHandling": "string"  
},  
        "JsonBody": {  
            "InvalidFallbackBehavior": "string",  
            "MatchPattern": {  
                "All": {  
},  
                "IncludedPaths": [ "string" ]  
},  
            "MatchScope": "string",  
            "OversizeHandling": "string"  
},  
        "Method": {  
},  
        "QueryString": {  
},  
        "SingleHeader": {  
            "Name": "string"  
},  
        "SingleQueryArgument": {  
            "Name": "string"  
},  
        "UriPath": {  
}
```

```
        },
      },
      "TextTransformations": [
        {
          "Priority": number,
          "Type": "string"
        }
      ]
    }
  },
  "VisibilityConfig": {
    "CloudWatchMetricsEnabled": boolean,
    "MetricName": "string",
    "SampledRequestsEnabled": boolean
  }
}
],
"Scope": "string",
"VisibilityConfig": {
  "CloudWatchMetricsEnabled": boolean,
  "MetricName": "string",
  "SampledRequestsEnabled": boolean
}
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[CustomResponseBodies \(p. 237\)](#)

A map of custom response keys and content bodies. When you create a rule with a block action, you can send a custom response to the web request. You define these for the rule group, and then use them in the rules that you define in the rule group.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](#) in the [AWS WAF Developer Guide](#).

For information about the limits on count and size for custom request and response settings, see [AWS WAF quotas](#) in the [AWS WAF Developer Guide](#).

Type: String to [CustomResponseBody \(p. 797\)](#) object map

Map Entries: Maximum number of items.

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

Key Pattern: ^[\w\-\]+\$

Required: No

[Description \(p. 237\)](#)

A description of the rule group that helps with identification.

Type: String

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

Pattern: ^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\\s]+[\w+=:#@/\-,\.]\$

Required: No

[Id \(p. 237\)](#)

A unique identifier for the rule group. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[LockToken \(p. 237\)](#)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[Name \(p. 237\)](#)

The name of the rule group. You cannot change the name of a rule group after you create it.

Type: String

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

Pattern: ^[\w\-\-]+\$

Required: Yes

[Rules \(p. 237\)](#)

The [Rule \(p. 868\)](#) statements used to identify the web requests that you want to allow, block, or count. Each rule includes one top-level statement that AWS WAF uses to identify matching web requests, and parameters that govern how AWS WAF handles them.

Type: Array of [Rule \(p. 868\)](#) objects

Required: No

[Scope \(p. 237\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.

- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: `CLOUDFRONT` | `REGIONAL`

Required: Yes

[VisibilityConfig \(p. 237\)](#)

Defines and enables Amazon CloudWatch metrics and web request sample collection.

Type: [VisibilityConfig \(p. 899\)](#) object

Required: Yes

Response Syntax

```
{  
    "NextLockToken": "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.

[NextLockToken \(p. 247\)](#)

A token used for optimistic locking. AWS WAF returns this token to your update requests. You use `NextLockToken` in the same manner as you use `LockToken`.

Type: String

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

Pattern: `^[0-9a-f]{8}-(:[0-9a-f]{4})-{3}[0-9a-f]{12}$`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

[WAFConfigurationWarningException](#)

The operation failed because you are inspecting the web request body, headers, or cookies without specifying how to handle oversize components. Rules that inspect the body must either provide an `OversizeHandling` configuration or they must be preceded by a `SizeConstraintStatement` that blocks the body content from being too large. Rules that inspect the headers or cookies must provide an `OversizeHandling` configuration.

Provide the handling configuration and retry your operation.

Alternately, you can suppress this warning by adding the following tag to the resource that you provide to this operation: `Tag (key:WAF:OversizeFieldsHandlingConstraintOptOut, value:true)`.

HTTP Status Code: 400

WAFDuplicateItemException

AWS WAF couldn't perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400

WAFFinalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFLInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFLInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a `WebACL` with a `DefaultAction` that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

WAFFSubscriptionNotFoundException

You tried to use a managed rule group that's available by subscription, but you aren't subscribed to it yet.

HTTP Status Code: 400

WAFFUnavailableEntityException

AWS WAF couldn't retrieve a resource that you specified for this operation. Verify the resources that you are specifying in your request parameters and then retry the operation.

HTTP Status Code: 400

See Also

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

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

UpdateWebACL

Service: AWS WAFV2

Updates the specified WebACL ([p. 900](#)). While updating a web ACL, AWS WAF provides continuous coverage to the resources that you have associated with the web ACL.

When you make changes to web ACLs or web ACL components, like rules and rule groups, AWS WAF propagates the changes everywhere that the web ACL and its components are stored and used. Your changes are applied within seconds, but there might be a brief period of inconsistency when the changes have arrived in some places and not in others. So, for example, if you change a rule action setting, the action might be the old action in one area and the new action in another area. Or if you add an IP address to an IP set used in a blocking rule, the new address might briefly be blocked in one area while still allowed in another. This temporary inconsistency can occur when you first associate a web ACL with an AWS resource and when you change a web ACL that is already associated with a resource. Generally, any inconsistencies of this type last only a few seconds.

Note

This operation completely replaces the mutable specifications that you already have for the web ACL with the ones that you provide to this call. To modify the web ACL, retrieve it by calling [GetWebACL \(p. 122\)](#), update the settings as needed, and then provide the complete web ACL specification to this call.

A web ACL defines a collection of rules to use to inspect and control web requests. Each rule has an action defined (allow, block, or count) for requests that match the statement of the rule. In the web ACL, you assign a default action to take (allow, block) for any request that does not match any of the rules. The rules in a web ACL can be a combination of the types [Rule \(p. 868\)](#), [RuleGroup \(p. 872\)](#), and managed rule group. You can associate a web ACL with one or more AWS resources to protect. The resources can be an Amazon CloudFront distribution, an Amazon API Gateway REST API, an Application Load Balancer, or an AWS AppSync GraphQL API.

Request Syntax

```
{  
    "CaptchaConfig": {  
        "ImmunityTimeProperty": {  
            "ImmunityTime": number  
        }  
    },  
    "CustomResponseBodies": {  
        "string": {  
            "Content": "string",  
            "ContentType": "string"  
        }  
    },  
    "DefaultAction": {  
        "Allow": {  
            "CustomRequestHandling": {  
                "InsertHeaders": [  
                    {  
                        "Name": "string",  
                        "Value": "string"  
                    }  
                ]  
            }  
        }  
    },  
    "Block": {  
        "CustomResponse": {  
            "CustomResponseBodyKey": "string",  
            "ResponseCode": number,  
            "ResponseHeaders": [  
                {  
                    "Name": "string",  
                    "Value": "string"  
                }  
            ]  
        }  
    }  
}
```

```
        "Name": "string",
        "Value": "string"
    }
}
},
"Description": "string",
"Id": "string",
"LockToken": "string",
"Name": "string",
"Rules": [
{
    "Action": {
        "Allow": {
            "CustomRequestHandling": {
                "InsertHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            }
        },
        "Block": {
            "CustomResponse": {
                "CustomResponseBodyKey": "string",
                "ResponseCode": number,
                "ResponseHeaders": [
                    {
                        "Name": "string",
                        "Value": "string"
                    }
                ]
            },
            "Captcha": {
                "CustomRequestHandling": {
                    "InsertHeaders": [
                        {
                            "Name": "string",
                            "Value": "string"
                        }
                    ]
                }
            }
        }
    },
    "Count": {
        "CustomRequestHandling": {
            "InsertHeaders": [
                {
                    "Name": "string",
                    "Value": "string"
                }
            ]
        }
    }
},
"CaptchaConfig": {
    "ImmunityTimeProperty": {
        "ImmunityTime": number
    }
},
"Name": "string",
"OverrideAction": {
    "Count": {
        "CustomRequestHandling": {

```

```
"InsertHeaders": [
    {
        "Name": "string",
        "Value": "string"
    }
],
"None": {
},
"Priority": number,
"RuleLabels": [
    {
        "Name": "string"
    }
],
"Statement": {
    "AndStatement": {
        "Statements": [
            "Statement"
        ]
    },
    "ByteMatchStatement": {
        "FieldToMatch": {
            "AllQueryArguments": {
            },
            "Body": {
                "OversizeHandling": "string"
            },
            "Cookies": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedCookies": [ "string" ],
                    "IncludedCookies": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Headers": {
                "MatchPattern": {
                    "All": {
                    },
                    "ExcludedHeaders": [ "string" ],
                    "IncludedHeaders": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "JsonBody": {
                "InvalidFallbackBehavior": "string",
                "MatchPattern": {
                    "All": {
                    },
                    "IncludedPaths": [ "string" ]
                },
                "MatchScope": "string",
                "OversizeHandling": "string"
            },
            "Method": {
            },
            "QueryString": {
            },
            "SingleHeader": {
                "Name": "string"
            }
        }
    }
}
```

```

},
"SingleQueryArgument": {
    "Name": "string"
},
"UriPath": {
}
},
"PositionalConstraint": "string",
"SearchString": blob,
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
},
"GeoMatchStatement": {
    "CountryCodes": [ "string" ],
    "ForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string"
    }
},
"IPSetReferenceStatement": {
    "ARN": "string",
    "IPSetForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string",
        "Position": "string"
    }
},
"LabelMatchStatement": {
    "Key": "string",
    "Scope": "string"
},
"ManagedRuleGroupStatement": {
    "ExcludedRules": [
{
    "Name": "string"
}
],
    "ManagedRuleGroupConfigs": [
{
        "LoginPath": "string",
        "PasswordField": {
            "Identifier": "string"
        },
        "PayloadType": "string",
        "UsernameField": {
            "Identifier": "string"
        }
}
],
    "Name": "string",
    "ScopeDownStatement": "Statement",
    "VendorName": "string",
    "Version": "string"
},
"NotStatement": {
    "Statement": "Statement"
},
"OrStatement": {
    "Statements": [
        "Statement"
    ]
},

```

```

"RateBasedStatement": {
    "AggregateKeyType": "string",
    "ForwardedIPConfig": {
        "FallbackBehavior": "string",
        "HeaderName": "string"
    },
    "Limit": number,
    "ScopeDownStatement": "Statement"
},
"RegexMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "RegexString": "string",
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
}

```

```

},
"RegexPatternSetReferenceStatement": {
    "ARN": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
"RuleGroupReferenceStatement": {
    "ARN": "string",
    "ExcludedRules": [
        {
            "Name": "string"
        }
    ]
}
]
}

```

```

},
"SizeConstraintStatement": {
    "ComparisonOperator": "string",
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "Size": number,
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
"SqlInjectionStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        }
    }
}

```

```
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Headers": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedHeaders": [ "string" ],
                "IncludedHeaders": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "JsonBody": {
            "InvalidFallbackBehavior": "string",
            "MatchPattern": {
                "All": {
                },
                "IncludedPaths": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        },
        "Method": {
        },
        "QueryString": {
        },
        "SingleHeader": {
            "Name": "string"
        },
        "SingleQueryArgument": {
            "Name": "string"
        },
        "UriPath": {
        }
    },
    "TextTransformations": [
        {
            "Priority": number,
            "Type": "string"
        }
    ]
},
"XssMatchStatement": {
    "FieldToMatch": {
        "AllQueryArguments": {
        },
        "Body": {
            "OversizeHandling": "string"
        },
        "Cookies": {
            "MatchPattern": {
                "All": {
                },
                "ExcludedCookies": [ "string" ],
                "IncludedCookies": [ "string" ]
            },
            "MatchScope": "string",
            "OversizeHandling": "string"
        }
    }
}
```

```

        "OversizeHandling": "string"
    },
    "Headers": {
        "MatchPattern": {
            "All": {
            },
            "ExcludedHeaders": [ "string" ],
            "IncludedHeaders": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "JsonBody": {
        "InvalidFallbackBehavior": "string",
        "MatchPattern": {
            "All": {
            },
            "IncludedPaths": [ "string" ]
        },
        "MatchScope": "string",
        "OversizeHandling": "string"
    },
    "Method": {
    },
    "QueryString": {
    },
    "SingleHeader": {
        "Name": "string"
    },
    "SingleQueryArgument": {
        "Name": "string"
    },
    "UriPath": {
    }
},
"TextTransformations": [
{
    "Priority": number,
    "Type": "string"
}
]
}
},
"visibilityConfig": {
    "CloudWatchMetricsEnabled": boolean,
    "MetricName": "string",
    "SampledRequestsEnabled": boolean
}
}
],
"Scope": "string",
"VisibilityConfig": {
    "CloudWatchMetricsEnabled": boolean,
    "MetricName": "string",
    "SampledRequestsEnabled": boolean
}
}
}
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[CaptchaConfig \(p. 250\)](#)

Specifies how AWS WAF should handle CAPTCHA evaluations for rules that don't have their own CaptchaConfig settings. If you don't specify this, AWS WAF uses its default settings for CaptchaConfig.

Type: [CaptchaConfig \(p. 786\)](#) object

Required: No

[CustomResponseBodies \(p. 250\)](#)

A map of custom response keys and content bodies. When you create a rule with a block action, you can send a custom response to the web request. You define these for the web ACL, and then use them in the rules and default actions that you define in the web ACL.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](#) in the [AWS WAF Developer Guide](#).

For information about the limits on count and size for custom request and response settings, see [AWS WAF quotas](#) in the [AWS WAF Developer Guide](#).

Type: String to [CustomResponseBody \(p. 797\)](#) object map

Map Entries: Maximum number of items.

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

Key Pattern: ^[\w\-\]+\$

Required: No

[DefaultAction \(p. 250\)](#)

The action to perform if none of the Rules contained in the WebACL match.

Type: [DefaultAction \(p. 798\)](#) object

Required: Yes

[Description \(p. 250\)](#)

A description of the web ACL that helps with identification.

Type: String

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

Pattern: ^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\\s]+[\w+=:#@/\-,\.]\$

Required: No

[Id \(p. 250\)](#)

The unique identifier for the web ACL. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

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

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

[LockToken \(p. 250\)](#)

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

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

Pattern: `^ [0-9a-f]{8}-([0-9a-f]{4})-{3}[0-9a-f]{12}$`

Required: Yes

[Name \(p. 250\)](#)

The name of the web ACL. You cannot change the name of a web ACL after you create it.

Type: String

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

Pattern: `^ [\w\-_]+\$`

Required: Yes

[Rules \(p. 250\)](#)

The [Rule \(p. 868\)](#) statements used to identify the web requests that you want to allow, block, or count. Each rule includes one top-level statement that AWS WAF uses to identify matching web requests, and parameters that govern how AWS WAF handles them.

Type: Array of [Rule \(p. 868\)](#) objects

Required: No

[Scope \(p. 250\)](#)

Specifies whether this is for an Amazon CloudFront distribution or for a regional application. A regional application can be an Application Load Balancer (ALB), an Amazon API Gateway REST API, or an AWS AppSync GraphQL API.

To work with CloudFront, you must also specify the Region US East (N. Virginia) as follows:

- CLI - Specify the Region when you use the CloudFront scope: `--scope=CLOUDFRONT --region=us-east-1`.
- API and SDKs - For all calls, use the Region endpoint `us-east-1`.

Type: String

Valid Values: CLOUDFRONT | REGIONAL

Required: Yes

[VisibilityConfig \(p. 250\)](#)

Defines and enables Amazon CloudWatch metrics and web request sample collection.

Type: [VisibilityConfig \(p. 899\)](#) object

Required: Yes

Response Syntax

```
{  
    "NextLockToken": "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.

NextLockToken (p. 261)

A token used for optimistic locking. AWS WAF returns this token to your update requests. You use `NextLockToken` in the same manner as you use `LockToken`.

Type: String

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

Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFConfigurationWarningException

The operation failed because you are inspecting the web request body, headers, or cookies without specifying how to handle oversize components. Rules that inspect the body must either provide an `OversizeHandling` configuration or they must be preceded by a `SizeConstraintStatement` that blocks the body content from being too large. Rules that inspect the headers or cookies must provide an `OversizeHandling` configuration.

Provide the handling configuration and retry your operation.

Alternately, you can suppress this warning by adding the following tag to the resource that you provide to this operation: `Tag (key:WAF:OversizeFieldsHandlingConstraintOptOut, value:true)`.

HTTP Status Code: 400

WADFuplicateItemException

AWS WAF couldn't perform the operation because the resource that you tried to save is a duplicate of an existing one.

HTTP Status Code: 400

WAFExpiredManagedRuleGroupVersionException

The operation failed because the specified version for the managed rule group has expired. You can retrieve the available versions for the managed rule group by calling [ListAvailableManagedRuleGroupVersions \(p. 175\)](#).

HTTP Status Code: 400

WAFInternalErrorException

Your request is valid, but AWS WAF couldn't perform the operation because of a system problem. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation isn't valid.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified a parameter name or value that isn't valid.
- Your nested statement isn't valid. You might have tried to nest a statement that can't be nested.
- You tried to update a WebACL with a `DefaultAction` that isn't among the types available at [DefaultAction \(p. 798\)](#).
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL can't be associated.

HTTP Status Code: 400

WAFInvalidOperationException

AWS WAF couldn't perform the operation because the resource that you requested isn't valid. Check the resource, and try again.

HTTP Status Code: 400

WAFLimitsExceededException

AWS WAF couldn't perform the operation because you exceeded your resource limit. For example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentItemException

AWS WAF couldn't perform the operation because your resource doesn't exist.

HTTP Status Code: 400

WAFOptimisticLockException

AWS WAF couldn't save your changes because you tried to update or delete a resource that has changed since you last retrieved it. Get the resource again, make any changes you need to make to the new copy, and retry your operation.

HTTP Status Code: 400

WAFSubscriptionNotFoundException

You tried to use a managed rule group that's available by subscription, but you aren't subscribed to it yet.

HTTP Status Code: 400

WAFUnavailableEntityException

AWS WAF couldn't retrieve a resource that you specified for this operation. Verify the resources that you are specifying in your request parameters and then retry the operation.

HTTP Status Code: 400

See Also

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

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

AWS WAF Classic

The following actions are supported by AWS WAF Classic:

- [CreateByteMatchSet \(p. 266\)](#)
- [CreateGeoMatchSet \(p. 270\)](#)
- [CreateIPSet \(p. 274\)](#)
- [CreateRateBasedRule \(p. 277\)](#)
- [CreateRegexMatchSet \(p. 282\)](#)
- [CreateRegexPatternSet \(p. 285\)](#)
- [CreateRule \(p. 288\)](#)
- [CreateRuleGroup \(p. 292\)](#)
- [CreateSizeConstraintSet \(p. 296\)](#)
- [CreateSqlInjectionMatchSet \(p. 300\)](#)
- [CreateWebACL \(p. 304\)](#)
- [CreateWebACLMigrationStack \(p. 309\)](#)
- [CreateXssMatchSet \(p. 313\)](#)
- [DeleteByteMatchSet \(p. 317\)](#)
- [DeleteGeoMatchSet \(p. 320\)](#)
- [DeleteIPSet \(p. 323\)](#)
- [DeleteLoggingConfiguration \(p. 326\)](#)
- [DeletePermissionPolicy \(p. 328\)](#)
- [DeleteRateBasedRule \(p. 330\)](#)
- [DeleteRegexMatchSet \(p. 333\)](#)
- [DeleteRegexPatternSet \(p. 336\)](#)
- [DeleteRule \(p. 339\)](#)
- [DeleteRuleGroup \(p. 342\)](#)
- [DeleteSizeConstraintSet \(p. 345\)](#)
- [DeleteSqlInjectionMatchSet \(p. 348\)](#)
- [DeleteWebACL \(p. 351\)](#)

- [DeleteXssMatchSet \(p. 354\)](#)
- [GetByteMatchSet \(p. 357\)](#)
- [GetChangeToken \(p. 360\)](#)
- [GetChangeTokenStatus \(p. 362\)](#)
- [GetGeoMatchSet \(p. 364\)](#)
- [GetIPSet \(p. 366\)](#)
- [GetLoggingConfiguration \(p. 368\)](#)
- [GetPermissionPolicy \(p. 370\)](#)
- [GetRateBasedRule \(p. 372\)](#)
- [GetRateBasedRuleManagedKeys \(p. 374\)](#)
- [GetRegexMatchSet \(p. 377\)](#)
- [GetRegexPatternSet \(p. 379\)](#)
- [GetRule \(p. 381\)](#)
- [GetRuleGroup \(p. 383\)](#)
- [GetSampledRequests \(p. 385\)](#)
- [GetSizeConstraintSet \(p. 389\)](#)
- [GetSqlInjectionMatchSet \(p. 392\)](#)
- [GetWebACL \(p. 395\)](#)
- [GetXssMatchSet \(p. 398\)](#)
- [ListActivatedRulesInRuleGroup \(p. 400\)](#)
- [ListByteMatchSets \(p. 403\)](#)
- [ListGeoMatchSets \(p. 406\)](#)
- [ListIPSets \(p. 409\)](#)
- [ListLoggingConfigurations \(p. 412\)](#)
- [ListRateBasedRules \(p. 415\)](#)
- [ListRegexMatchSets \(p. 418\)](#)
- [ListRegexPatternSets \(p. 421\)](#)
- [ListRuleGroups \(p. 424\)](#)
- [ListRules \(p. 427\)](#)
- [ListSizeConstraintSets \(p. 430\)](#)
- [ListSqlInjectionMatchSets \(p. 433\)](#)
- [ListSubscribedRuleGroups \(p. 436\)](#)
- [ListTagsForResource \(p. 439\)](#)
- [ListWebACLs \(p. 442\)](#)
- [ListXssMatchSets \(p. 445\)](#)
- [PutLoggingConfiguration \(p. 448\)](#)
- [PutPermissionPolicy \(p. 451\)](#)
- [TagResource \(p. 454\)](#)
- [UntagResource \(p. 457\)](#)
- [UpdateByteMatchSet \(p. 459\)](#)
- [UpdateGeoMatchSet \(p. 463\)](#)
- [UpdateIPSet \(p. 467\)](#)
- [UpdateRateBasedRule \(p. 472\)](#)
- [UpdateRegexMatchSet \(p. 477\)](#)
- [UpdateRegexPatternSet \(p. 481\)](#)
- [UpdateRule \(p. 485\)](#)

- [UpdateRuleGroup \(p. 489\)](#)
- [UpdateSizeConstraintSet \(p. 493\)](#)
- [UpdateSqlInjectionMatchSet \(p. 498\)](#)
- [UpdateWebACL \(p. 502\)](#)
- [UpdateXssMatchSet \(p. 507\)](#)

CreateByteMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a ByteMatchSet. You then use [UpdateByteMatchSet \(p. 459\)](#) to identify the part of a web request that you want AWS WAF to inspect, such as the values of the User-Agent header or the query string. For example, you can create a ByteMatchSet that matches any requests with User-Agent headers that contain the string BadBot. You can then configure AWS WAF to reject those requests.

To create and configure a ByteMatchSet, perform the following steps:

1. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateByteMatchSet request.
2. Submit a CreateByteMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateByteMatchSet request.
4. Submit an [UpdateByteMatchSet \(p. 459\)](#) request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 266\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\\$.*

Required: Yes

Name (p. 266)

A friendly name or description of the ByteMatchSet (p. 912). You can't change Name after you create a ByteMatchSet.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ByteMatchSet": {  
        "ByteMatchSetId": "string",  
        "ByteMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "PositionalConstraint": "string",  
                "TargetString": blob,  
                "TextTransformation": "string"  
            }  
        ],  
        "Name": "string"  
    },  
    "ChangeToken": "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.

ByteMatchSet (p. 267)

A ByteMatchSet (p. 912) that contains no ByteMatchTuple objects.

Type: ByteMatchSet (p. 912) object

ChangeToken (p. 267)

The ChangeToken that you used to submit the CreateByteMatchSet request. You can also use this value to query the status of the request. For more information, see GetChangeTokenStatus (p. 362).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see Common Errors (p. 1085).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFFinalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

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

CreateGeoMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates an [GeoMatchSet \(p. 925\)](#), which you use to specify which web requests you want to allow or block based on the country that the requests originate from. For example, if you're receiving a lot of requests from one or more countries and you want to block the requests, you can create an GeoMatchSet that contains those countries and then configure AWS WAF to block the requests.

To create and configure a GeoMatchSet, perform the following steps:

1. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateGeoMatchSet request.
2. Submit a CreateGeoMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateGeoMatchSet \(p. 463\)](#) request.
4. Submit an [UpdateGeoMatchSetSet](#) request to specify the countries that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 270\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\\$.*

Required: Yes

[Name \(p. 270\)](#)

A friendly name or description of the [GeoMatchSet \(p. 925\)](#). You can't change Name after you create the GeoMatchSet.

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "string",  
    "GeoMatchSet": {  
        "GeoMatchConstraints": [  
            {  
                "Type": "string",  
                "Value": "string"  
            }  
        ],  
        "GeoMatchSetId": "string",  
        "Name": "string"  
    }  
}
```

Response Elements

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

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

ChangeToken (p. 271)

The `ChangeToken` that you used to submit the `CreateGeoMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: .*\S.*

GeoMatchSet (p. 271)

The [GeoMatchSet \(p. 925\)](#) returned in the `CreateGeoMatchSet` response. The `GeoMatchSet` contains no `GeoMatchConstraints`.

Type: [GeoMatchSet \(p. 925\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)

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

CreateIPSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates an [IPSet \(p. 932\)](#), which you use to specify which web requests that you want to allow or block based on the IP addresses that the requests originate from. For example, if you're receiving a lot of requests from one or more individual IP addresses or one or more ranges of IP addresses and you want to block the requests, you can create an IPSet that contains those IP addresses and then configure AWS WAF to block the requests.

To create and configure an IPSet, perform the following steps:

1. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateIPSet request.
2. Submit a CreateIPSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateIPSet \(p. 467\)](#) request.
4. Submit an UpdateIPSet request to specify the IP addresses that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 274\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\\$.*

Required: Yes

[Name \(p. 274\)](#)

A friendly name or description of the [IPSet \(p. 932\)](#). You can't change Name after you create the IPSet.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "string",  
    "IPSet": {  
        "IPSetDescriptors": [  
            {  
                "Type": "string",  
                "Value": "string"  
            }  
        ],  
        "IPSetId": "string",  
        "Name": "string"  
    }  
}
```

Response Elements

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

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

ChangeToken (p. 275)

The `ChangeToken` that you used to submit the `CreateIPSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\S.*`

IPSet (p. 275)

The `IPSet` (p. 932) returned in the `CreateIPSet` response.

Type: [IPSet \(p. 932\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

CreateRateBasedRule

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a [RateBasedRule \(p. 942\)](#). The RateBasedRule contains a RateLimit, which specifies the maximum number of requests that AWS WAF allows from a specified IP address in a five-minute period. The RateBasedRule also contains the IPSet objects, ByteMatchSet objects, and other predicates that identify the requests that you want to count or block if these requests exceed the RateLimit.

If you add more than one predicate to a RateBasedRule, a request not only must exceed the RateLimit, but it also must match all the conditions to be counted or blocked. For example, suppose you add the following to a RateBasedRule:

- An IPSet that matches the IP address 192.0.2.44/32
- A ByteMatchSet that matches BadBot in the User-Agent header

Further, you specify a RateLimit of 1,000.

You then add the RateBasedRule to a WebACL and specify that you want to block requests that meet the conditions in the rule. For a request to be blocked, it must come from the IP address 192.0.2.44 *and* the User-Agent header in the request must contain the value BadBot. Further, requests that match these two conditions must be received at a rate of more than 1,000 requests every five minutes. If both conditions are met and the rate is exceeded, AWS WAF blocks the requests. If the rate drops below 1,000 for a five-minute period, AWS WAF no longer blocks the requests.

As a second example, suppose you want to limit requests to a particular page on your site. To do this, you could add the following to a RateBasedRule:

- A ByteMatchSet with FieldToMatch of URI
- A PositionalConstraint of STARTS_WITH
- A TargetString of login

Further, you specify a RateLimit of 1,000.

By adding this RateBasedRule to a WebACL, you could limit requests to your login page without affecting the rest of your site.

To create and configure a RateBasedRule, perform the following steps:

1. Create and update the predicates that you want to include in the rule. For more information, see [CreateByteMatchSet \(p. 266\)](#), [CreateIPSet \(p. 274\)](#), and [CreateSqlInjectionMatchSet \(p. 300\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateRule request.
3. Submit a CreateRateBasedRule request.
4. Use [GetChangeToken](#) to get the change token that you provide in the ChangeToken parameter of an [UpdateRule \(p. 485\)](#) request.
5. Submit an [UpdateRateBasedRule](#) request to specify the predicates that you want to include in the rule.

6. Create and update a WebACL that contains the RateBasedRule. For more information, see [CreateWebACL \(p. 304\)](#).

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "MetricName": "string",  
    "Name": "string",  
    "RateKey": "string",  
    "RateLimit": number,  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 278\)](#)

The ChangeToken that you used to submit the CreateRateBasedRule request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[MetricName \(p. 278\)](#)

A friendly name or description for the metrics for this RateBasedRule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RateBasedRule.

Type: String

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

Pattern: .*\S.*

Required: Yes

[Name \(p. 278\)](#)

A friendly name or description of the RateBasedRule (p. 942). You can't change the name of a RateBasedRule after you create it.

Type: String

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

Pattern: .*\\$.*

Required: Yes

[RateKey \(p. 278\)](#)

The field that AWS WAF uses to determine if requests are likely arriving from a single source and thus subject to rate monitoring. The only valid value for RateKey is IP. IP indicates that requests that arrive from the same IP address are subject to the RateLimit that is specified in the RateBasedRule.

Type: String

Valid Values: IP

Required: Yes

[RateLimit \(p. 278\)](#)

The maximum number of requests, which have an identical value in the field that is specified by RateKey, allowed in a five-minute period. If the number of requests exceeds the RateLimit and the other predicates specified in the rule are also met, AWS WAF triggers the action that is specified for this rule.

Type: Long

Valid Range: Minimum value of 100. Maximum value of 2000000000.

Required: Yes

[Tags \(p. 278\)](#)

Type: Array of [Tag \(p. 980\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

Response Syntax

```
{  
    "ChangeToken": "string",  
    "Rule": {  
        "MatchPredicates": [  
            {  
                "DataId": "string",  
                "Negated": boolean,  
                "Type": "string"  
            }  
        ],  
        "MetricName": "string",  
        "Name": "string",  
        "RateKey": "string",  
        "RateLimit": number,  
        "RuleId": "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.

[ChangeToken \(p. 279\)](#)

The `ChangeToken` that you used to submit the `CreateRateBasedRule` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\S.*`

[Rule \(p. 279\)](#)

The [RateBasedRule \(p. 942\)](#) that is returned in the `CreateRateBasedRule` response.

Type: [RateBasedRule \(p. 942\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFBadRequestException

HTTP Status Code: 400

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.

- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

CreateRegexMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a [RegexMatchSet \(p. 944\)](#). You then use [UpdateRegexMatchSet \(p. 477\)](#) to identify the part of a web request that you want AWS WAF to inspect, such as the values of the `User-Agent` header or the query string. For example, you can create a `RegexMatchSet` that contains a `RegexMatchTuple` that looks for any requests with `User-Agent` headers that match a `RegexPatternSet` with pattern `B[a@]dB[oo]t`. You can then configure AWS WAF to reject those requests.

To create and configure a `RegexMatchSet`, perform the following steps:

1. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the `ChangeToken` parameter of a `CreateRegexMatchSet` request.
2. Submit a `CreateRegexMatchSet` request.
3. Use [GetChangeToken](#) to get the change token that you provide in the `ChangeToken` parameter of an [UpdateRegexMatchSet](#) request.
4. Submit an [UpdateRegexMatchSet \(p. 477\)](#) request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value, using a `RegexPatternSet`, that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 282)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Name (p. 282)

A friendly name or description of the [RegexMatchSet \(p. 944\)](#). You can't change Name after you create a RegexMatchSet.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "string",  
    "RegexMatchSet": {  
        "Name": "string",  
        "RegexMatchSetId": "string",  
        "RegexMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "RegexPatternSetId": "string",  
                "TextTransformation": "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.

ChangeToken (p. 283)

The ChangeToken that you used to submit the CreateRegexMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\S.*`

RegexMatchSet (p. 283)

A [RegexMatchSet \(p. 944\)](#) that contains no RegexMatchTuple objects.

Type: [RegexMatchSet \(p. 944\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFLInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

CreateRegexPatternSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a RegexPatternSet. You then use [UpdateRegexPatternSet \(p. 481\)](#) to specify the regular expression (regex) pattern that you want AWS WAF to search for, such as `B[a@]dB[o0]t`. You can then configure AWS WAF to reject those requests.

To create and configure a RegexPatternSet, perform the following steps:

1. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the `ChangeToken` parameter of a `CreateRegexPatternSet` request.
2. Submit a `CreateRegexPatternSet` request.
3. Use [GetChangeToken](#) to get the change token that you provide in the `ChangeToken` parameter of an [UpdateRegexPatternSet](#) request.
4. Submit an [UpdateRegexPatternSet \(p. 481\)](#) request to specify the string that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 285)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Name (p. 285)

A friendly name or description of the [RegexPatternSet \(p. 951\)](#). You can't change Name after you create a RegexPatternSet.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "string",  
    "RegexPatternSet": {  
        "Name": "string",  
        "RegexPatternSetId": "string",  
        "RegexPatternStrings": [ "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.

[ChangeToken \(p. 286\)](#)

The `ChangeToken` that you used to submit the `CreateRegexPatternSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\S.*`

[RegexPatternSet \(p. 286\)](#)

A [RegexPatternSet \(p. 951\)](#) that contains no objects.

Type: [RegexPatternSet \(p. 951\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFLimitsExceeded

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

CreateRule

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a Rule, which contains the IPSet objects, ByteMatchSet objects, and other predicates that identify the requests that you want to block. If you add more than one predicate to a Rule, a request must match all of the specifications to be allowed or blocked. For example, suppose that you add the following to a Rule:

- An IPSet that matches the IP address 192.0.2.44/32
- A ByteMatchSet that matches BadBot in the User-Agent header

You then add the Rule to a WebACL and specify that you want to blocks requests that satisfy the Rule. For a request to be blocked, it must come from the IP address 192.0.2.44 *and* the User-Agent header in the request must contain the value BadBot.

To create and configure a Rule, perform the following steps:

1. Create and update the predicates that you want to include in the Rule. For more information, see [CreateByteMatchSet \(p. 266\)](#), [CreateIPSet \(p. 274\)](#), and [CreateSqlInjectionMatchSet \(p. 300\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateRule request.
3. Submit a CreateRule request.
4. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateRule \(p. 485\)](#) request.
5. Submit an [UpdateRule](#) request to specify the predicates that you want to include in the Rule.
6. Create and update a WebACL that contains the Rule. For more information, see [CreateWebACL \(p. 304\)](#).

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 288\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

[MetricName \(p. 288\)](#)

A friendly name or description for the metrics for this Rule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the Rule.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

[Name \(p. 288\)](#)

A friendly name or description of the [Rule \(p. 955\)](#). You can't change the name of a Rule after you create it.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

[Tags \(p. 288\)](#)

Type: Array of [Tag \(p. 980\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

Response Syntax

```
{  
    "ChangeToken": "string",  
    "Rule": {  
        "MetricName": "string",  
    },  
}
```

```
    "Name": "string",
    "Predicates": [
        {
            "DataId": "string",
            "Negated": boolean,
            "Type": "string"
        }
    ],
    "RuleId": "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.

[ChangeToken](#) (p. 289)

The [ChangeToken](#) that you used to submit the [CreateRule](#) request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#) (p. 362).

Type: String

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

Pattern: .*\\$.*

[Rule](#) (p. 289)

The [Rule](#) (p. 955) returned in the [CreateRule](#) response.

Type: [Rule](#) (p. 955) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1085).

WAFBadRequestException

HTTP Status Code: 400

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.

- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

CreateRuleGroup

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a RuleGroup. A rule group is a collection of predefined rules that you add to a web ACL. You use [UpdateRuleGroup \(p. 489\)](#) to add rules to the rule group.

Rule groups are subject to the following limits:

- Three rule groups per account. You can request an increase to this limit by contacting customer support.
- One rule group per web ACL.
- Ten rules per rule group.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 292)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

MetricName (p. 292)

A friendly name or description for the metrics for this RuleGroup. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't

contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RuleGroup.

Type: String

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

Pattern: .*\S.*

Required: Yes

[Name \(p. 292\)](#)

A friendly name or description of the [RuleGroup \(p. 957\)](#). You can't change Name after you create a RuleGroup.

Type: String

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

Pattern: .*\S.*

Required: Yes

[Tags \(p. 292\)](#)

Type: Array of [Tag \(p. 980\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

Response Syntax

```
{  
    "ChangeToken": "string",  
    "RuleGroup": {  
        "MetricName": "string",  
        "Name": "string",  
        "RuleGroupId": "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.

[ChangeToken \(p. 293\)](#)

The ChangeToken that you used to submit the CreateRuleGroup request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: .*\S.*

[RuleGroup \(p. 293\)](#)

An empty [RuleGroup \(p. 957\)](#).

Type: [RuleGroup \(p. 957\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFBadRequestException

HTTP Status Code: 400

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFLInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

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

CreateSizeConstraintSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a `SizeConstraintSet`. You then use [UpdateSizeConstraintSet \(p. 493\)](#) to identify the part of a web request that you want AWS WAF to check for length, such as the length of the `User-Agent` header or the length of the query string. For example, you can create a `SizeConstraintSet` that matches any requests that have a query string that is longer than 100 bytes. You can then configure AWS WAF to reject those requests.

To create and configure a `SizeConstraintSet`, perform the following steps:

1. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the `ChangeToken` parameter of a `CreateSizeConstraintSet` request.
2. Submit a `CreateSizeConstraintSet` request.
3. Use `GetChangeToken` to get the change token that you provide in the `ChangeToken` parameter of an `UpdateSizeConstraintSet` request.
4. Submit an [UpdateSizeConstraintSet \(p. 493\)](#) request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 296)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Name (p. 296)

A friendly name or description of the [SizeConstraintSet \(p. 968\)](#). You can't change Name after you create a SizeConstraintSet.

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "string",  
    "SizeConstraintSet": {  
        "Name": "string",  
        "SizeConstraints": [  
            {  
                "ComparisonOperator": "string",  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "Size": number,  
                "TextTransformation": "string"  
            }  
        ],  
        "SizeConstraintSetId": "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.

ChangeToken (p. 297)

The ChangeToken that you used to submit the CreateSizeConstraintSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: .*\S.*

SizeConstraintSet (p. 297)

A [SizeConstraintSet \(p. 968\)](#) that contains no SizeConstraint objects.

Type: [SizeConstraintSet \(p. 968\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFFinalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

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

CreateSqlInjectionMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF , use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a [SqlInjectionMatchSet \(p. 972\)](#), which you use to allow, block, or count requests that contain snippets of SQL code in a specified part of web requests. AWS WAF searches for character sequences that are likely to be malicious strings.

To create and configure a SqlInjectionMatchSet, perform the following steps:

1. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateSqlInjectionMatchSet request.
2. Submit a CreateSqlInjectionMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateSqlInjectionMatchSet \(p. 498\)](#) request.
4. Submit an [UpdateSqlInjectionMatchSet \(p. 498\)](#) request to specify the parts of web requests in which you want to allow, block, or count malicious SQL code.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 300)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

Name (p. 300)

A friendly name or description for the [SqlInjectionMatchSet \(p. 972\)](#) that you're creating. You can't change Name after you create the SqlInjectionMatchSet.

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "string",  
    "SqlInjectionMatchSet": {  
        "Name": "string",  
        "SqlInjectionMatchSetId": "string",  
        "SqlInjectionMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "TextTransformation": "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.

ChangeToken (p. 301)

The ChangeToken that you used to submit the CreateSqlInjectionMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: .*\S.*

SqlInjectionMatchSet (p. 301)

A [SqlInjectionMatchSet \(p. 972\)](#).

Type: [SqlInjectionMatchSet \(p. 972\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

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

CreateWebACL

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a WebACL, which contains the Rules that identify the Amazon CloudFront web requests that you want to allow, block, or count. AWS WAF evaluates Rules in order based on the value of Priority for each Rule.

You also specify a default action, either ALLOW or BLOCK. If a web request doesn't match any of the Rules in a WebACL, AWS WAF responds to the request with the default action.

To create and configure a WebACL, perform the following steps:

1. Create and update the ByteMatchSet objects and other predicates that you want to include in Rules. For more information, see [CreateByteMatchSet \(p. 266\)](#), [UpdateByteMatchSet \(p. 459\)](#), [CreateIPSet \(p. 274\)](#), [UpdateIPSet \(p. 467\)](#), [CreateSqlInjectionMatchSet \(p. 300\)](#), and [UpdateSqlInjectionMatchSet \(p. 498\)](#).
2. Create and update the Rules that you want to include in the WebACL. For more information, see [CreateRule \(p. 288\)](#) and [UpdateRule \(p. 485\)](#).
3. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateWebACL request.
4. Submit a CreateWebACL request.
5. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateWebACL \(p. 502\)](#) request.
6. Submit an [UpdateWebACL \(p. 502\)](#) request to specify the Rules that you want to include in the WebACL, to specify the default action, and to associate the WebACL with an Amazon CloudFront distribution.

For more information about how to use the AWS WAF API, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "DefaultAction": {  
        "Type": "string"  
    },  
    "MetricName": "string",  
    "Name": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 304)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

DefaultAction (p. 304)

The action that you want AWS WAF to take when a request doesn't match the criteria specified in any of the Rule objects that are associated with the WebACL.

Type: [WafAction \(p. 983\)](#) object

Required: Yes

MetricName (p. 304)

A friendly name or description for the metrics for this WebACL. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change MetricName after you create the WebACL.

Type: String

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

Pattern: .*\S.*

Required: Yes

Name (p. 304)

A friendly name or description of the [WebACL \(p. 985\)](#). You can't change Name after you create the WebACL.

Type: String

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

Pattern: .*\S.*

Required: Yes

Tags (p. 304)

Type: Array of [Tag \(p. 980\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

Response Syntax

```
{
```

```
"ChangeToken": "string",
"WebACL": {
    "DefaultAction": {
        "Type": "string"
    },
    "MetricName": "string",
    "Name": "string",
    "Rules": [
        {
            "Action": {
                "Type": "string"
            },
            "ExcludedRules": [
                {
                    "RuleId": "string"
                }
            ],
            "OverrideAction": {
                "Type": "string"
            },
            "Priority": number,
            "RuleId": "string",
            "Type": "string"
        }
    ],
    "WebACLArn": "string",
    "WebACLId": "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.

[ChangeToken](#) (p. 305)

The ChangeToken that you used to submit the CreateWebACL request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#) (p. 362).

Type: String

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

Pattern: .*\S.*

[WebACL](#) (p. 305)

The [WebACL](#) (p. 985) returned in the CreateWebACL response.

Type: [WebACL](#) (p. 985) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1085).

[WAFBadRequestException](#)

HTTP Status Code: 400

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

CreateWebACLMigrationStack

Service: AWS WAF Classic

Creates an AWS CloudFormation AWS WAFV2 template for the specified web ACL in the specified Amazon S3 bucket. Then, in CloudFormation, you create a stack from the template, to create the web ACL and its resources in AWS WAFV2. Use this to migrate your AWS WAF Classic web ACL to the latest version of AWS WAF.

This is part of a larger migration procedure for web ACLs from AWS WAF Classic to the latest version of AWS WAF. For the full procedure, including caveats and manual steps to complete the migration and switch over to the new web ACL, see [Migrating your AWS WAF Classic resources to AWS WAF](#) in the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "IgnoreUnsupportedType": boolean,  
    "S3BucketName": "string",  
    "WebACLId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[IgnoreUnsupportedType \(p. 309\)](#)

Indicates whether to exclude entities that can't be migrated or to stop the migration. Set this to true to ignore unsupported entities in the web ACL during the migration. Otherwise, if AWS WAF encounters unsupported entities, it stops the process and throws an exception.

Type: Boolean

Required: Yes

[S3BucketName \(p. 309\)](#)

The name of the Amazon S3 bucket to store the AWS CloudFormation template in. The S3 bucket must be configured as follows for the migration:

- If the bucket is encrypted, the encryption must use Amazon S3 (SSE-S3) keys. The migration doesn't support encryption with AWS Key Management Service (SSE-KMS) keys.
- The bucket name must start with `aws-waf-migration-`. For example, `aws-waf-migration-my-web-acl`.
- The bucket must be in the Region where you are deploying the template. For example, for a web ACL in `us-west-2`, you must use an Amazon S3 bucket in `us-west-2` and you must deploy the template stack to `us-west-2`.
- The bucket policies must permit the migration process to write data. For listings of the bucket policies, see the Examples section.

Type: String

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

Pattern: `^aws-waf-migration-[0-9A-Za-z\.\-_]*`

Required: Yes

[WebACLId \(p. 309\)](#)

The UUID of the WAF Classic web ACL that you want to migrate to WAF v2.

Type: String

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

Pattern: .*\\$.*

Required: Yes

Response Syntax

```
{  
    "S3ObjectUrl": "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.

[S3ObjectUrl \(p. 310\)](#)

The URL of the template created in Amazon S3.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

[WAFEntityMigrationException](#)

The operation failed due to a problem with the migration. The failure cause is provided in the exception, in the `MigrationErrorType`:

- `ENTITY_NOT_SUPPORTED` - The web ACL has an unsupported entity but the `IgnoreUnsupportedType` is not set to true.
- `ENTITY_NOT_FOUND` - The web ACL doesn't exist.
- `S3_BUCKET_NO_PERMISSION` - You don't have permission to perform the `PutObject` action to the specified Amazon S3 bucket.
- `S3_BUCKET_NOT_ACCESSIBLE` - The bucket policy doesn't allow AWS WAF to perform the `PutObject` action in the bucket.
- `S3_BUCKET_NOT_FOUND` - The S3 bucket doesn't exist.
- `S3_BUCKET_INVALID_REGION` - The S3 bucket is not in the same Region as the web ACL.
- `S3_INTERNAL_ERROR` - AWS WAF failed to create the template in the S3 bucket for another reason.

In addition, the exception includes specific details about the failure in the `MigrationErrorReason`.

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

Examples

Amazon S3 bucket policy for global Amazon CloudFront applications

This example illustrates one usage of CreateWebACLMigrationStack.

```
{  
    "Version": "2012-10-17",  
    "Statement": [  
        {  
            "Effect": "Allow",  
            "Principal": "*"  
        }  
    ]  
}
```

```
        "Principal": {
            "Service": "apiv2migration.waf.amazonaws.com"
        },
        "Action": "s3:PutObject",
        "Resource": "arn:aws:s3:::<BUCKET_NAME>/AWSWAF/<CUSTOMER_ACCOUNT_ID>/*"
    }
}
```

Amazon S3 bucket policy for Amazon API Gateway API or Application Load Balancer applications

This example illustrates one usage of CreateWebACLMigrationStack.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Principal": {
                "Service": "apiv2migration.waf-regional.amazonaws.com"
            },
            "Action": "s3:PutObject",
            "Resource": "arn:aws:s3:::<BUCKET_NAME>/AWSWAF/<CUSTOMER_ACCOUNT_ID>/*"
        }
    ]
}
```

See Also

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

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

CreateXssMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates an [XssMatchSet \(p. 989\)](#), which you use to allow, block, or count requests that contain cross-site scripting attacks in the specified part of web requests. AWS WAF searches for character sequences that are likely to be malicious strings.

To create and configure an XssMatchSet, perform the following steps:

1. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateXssMatchSet request.
2. Submit a CreateXssMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateXssMatchSet \(p. 507\)](#) request.
4. Submit an [UpdateXssMatchSet \(p. 507\)](#) request to specify the parts of web requests in which you want to allow, block, or count cross-site scripting attacks.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 313)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

Name (p. 313)

A friendly name or description for the [XssMatchSet \(p. 989\)](#) that you're creating. You can't change Name after you create the XssMatchSet.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "string",  
    "XssMatchSet": {  
        "Name": "string",  
        "XssMatchSetId": "string",  
        "XssMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "TextTransformation": "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.

ChangeToken (p. 314)

The `ChangeToken` that you used to submit the `CreateXssMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\S.*`

XssMatchSet (p. 314)

An [XssMatchSet \(p. 989\)](#).

Type: [XssMatchSet \(p. 989\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

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

DeleteByteMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [ByteMatchSet \(p. 912\)](#). You can't delete a ByteMatchSet if it's still used in any Rules or if it still includes any [ByteMatchTuple \(p. 916\)](#) objects (any filters).

If you just want to remove a ByteMatchSet from a Rule, use [UpdateRule \(p. 485\)](#).

To permanently delete a ByteMatchSet, perform the following steps:

1. Update the ByteMatchSet to remove filters, if any. For more information, see [UpdateByteMatchSet \(p. 459\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteByteMatchSet request.
3. Submit a DeleteByteMatchSet request.

Request Syntax

```
{  
    "ByteMatchSetId": "string",  
    "ChangeToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ByteMatchSetId \(p. 317\)](#)

The ByteMatchSetId of the [ByteMatchSet \(p. 912\)](#) that you want to delete. ByteMatchSetId is returned by [CreateByteMatchSet \(p. 266\)](#) and by [ListByteMatchSets \(p. 403\)](#).

Type: String

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

Pattern: .*\s.*

Required: Yes

[ChangeToken \(p. 317\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 318\)](#)

The `ChangeToken` that you used to submit the `DeleteByteMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFAccessDeniedException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteGeoMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [GeoMatchSet \(p. 925\)](#). You can't delete a GeoMatchSet if it's still used in any Rules or if it still includes any countries.

If you just want to remove a GeoMatchSet from a Rule, use [UpdateRule \(p. 485\)](#).

To permanently delete a GeoMatchSet from AWS WAF, perform the following steps:

1. Update the GeoMatchSet to remove any countries. For more information, see [UpdateGeoMatchSet \(p. 463\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteGeoMatchSet request.
3. Submit a DeleteGeoMatchSet request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "GeoMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 320\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[GeoMatchSetId \(p. 320\)](#)

The GeoMatchSetID of the [GeoMatchSet \(p. 925\)](#) that you want to delete. GeoMatchSetId is returned by [CreateGeoMatchSet \(p. 270\)](#) and by [ListGeoMatchSets \(p. 406\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 321\)](#)

The `ChangeToken` that you used to submit the `DeleteGeoMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFAccessDeniedException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteIPSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes an [IPSet \(p. 932\)](#). You can't delete an IPSet if it's still used in any Rules or if it still includes any IP addresses.

If you just want to remove an IPSet from a Rule, use [UpdateRule \(p. 485\)](#).

To permanently delete an IPSet from AWS WAF, perform the following steps:

1. Update the IPSet to remove IP address ranges, if any. For more information, see [UpdateIPSet \(p. 467\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteIPSet request.
3. Submit a DeleteIPSet request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "IPSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 323\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[IPSetId \(p. 323\)](#)

The IPSetId of the [IPSet \(p. 932\)](#) that you want to delete. IPSetId is returned by [CreateIPSet \(p. 274\)](#) and by [ListIPSets \(p. 409\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

ChangeToken (p. 324)

The `ChangeToken` that you used to submit the `DeleteIPSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#) (p. 362).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1085).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteLoggingConfiguration

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes the [LoggingConfiguration \(p. 938\)](#) from the specified web ACL.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceArn (p. 326)

The Amazon Resource Name (ARN) of the web ACL from which you want to delete the [LoggingConfiguration \(p. 938\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\\$.*

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeletePermissionPolicy

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes an IAM policy from the specified RuleGroup.

The user making the request must be the owner of the RuleGroup.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceArn (p. 328)

The Amazon Resource Name (ARN) of the RuleGroup from which you want to delete the policy.

The user making the request must be the owner of the RuleGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\S.*

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteRateBasedRule

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [RateBasedRule \(p. 942\)](#). You can't delete a rule if it's still used in any `WebACL` objects or if it still includes any predicates, such as `ByteMatchSet` objects.

If you just want to remove a rule from a `WebACL`, use [UpdateWebACL \(p. 502\)](#).

To permanently delete a `RateBasedRule` from AWS WAF, perform the following steps:

1. Update the `RateBasedRule` to remove predicates, if any. For more information, see [UpdateRateBasedRule \(p. 472\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the `ChangeToken` parameter of a `DeleteRateBasedRule` request.
3. Submit a `DeleteRateBasedRule` request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RuleId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 330)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

RuleId (p. 330)

The `RuleId` of the [RateBasedRule \(p. 942\)](#) that you want to delete. `RuleId` is returned by [CreateRateBasedRule \(p. 277\)](#) and by [ListRateBasedRules \(p. 415\)](#).

Type: String

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

Pattern: `.*\$.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 331\)](#)

The `ChangeToken` that you used to submit the `DeleteRateBasedRule` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFAccessDeniedException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

DeleteRegexMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [RegexMatchSet \(p. 944\)](#). You can't delete a RegexMatchSet if it's still used in any Rules or if it still includes any RegexMatchTuples objects (any filters).

If you just want to remove a RegexMatchSet from a Rule, use [UpdateRule \(p. 485\)](#).

To permanently delete a RegexMatchSet, perform the following steps:

1. Update the RegexMatchSet to remove filters, if any. For more information, see [UpdateRegexMatchSet \(p. 477\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteRegexMatchSet request.
3. Submit a DeleteRegexMatchSet request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RegexMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 333\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\s.*

Required: Yes

[RegexMatchSetId \(p. 333\)](#)

The `RegexMatchSetId` of the [RegexMatchSet \(p. 944\)](#) that you want to delete. `RegexMatchSetId` is returned by [CreateRegexMatchSet \(p. 282\)](#) and by [ListRegexMatchSets \(p. 418\)](#).

Type: String

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

Pattern: `.*\$.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 334\)](#)

The `ChangeToken` that you used to submit the `DeleteRegexMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFAccessDeniedException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteRegexPatternSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [RegexPatternSet \(p. 951\)](#). You can't delete a RegexPatternSet if it's still used in any RegexMatchSet or if the RegexPatternSet is not empty.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RegexPatternSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 336)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

RegexPatternSetId (p. 336)

The RegexPatternSetId of the [RegexPatternSet \(p. 951\)](#) that you want to delete. RegexPatternSetId is returned by [CreateRegexPatternSet \(p. 285\)](#) and by [ListRegexPatternSets \(p. 421\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

ChangeToken (p. 336)

The `ChangeToken` that you used to submit the `DeleteRegexPatternSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#) (p. 362).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1085).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteRule

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [Rule \(p. 955\)](#). You can't delete a Rule if it's still used in any WebACL objects or if it still includes any predicates, such as ByteMatchSet objects.

If you just want to remove a Rule from a WebACL, use [UpdateWebACL \(p. 502\)](#).

To permanently delete a Rule from AWS WAF, perform the following steps:

1. Update the Rule to remove predicates, if any. For more information, see [UpdateRule \(p. 485\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteRule request.
3. Submit a DeleteRule request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RuleId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 339\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[RuleId \(p. 339\)](#)

The RuleId of the [Rule \(p. 955\)](#) that you want to delete. RuleId is returned by [CreateRule \(p. 288\)](#) and by [ListRules \(p. 427\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

ChangeToken (p. 340)

The `ChangeToken` that you used to submit the `DeleteRule` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

DeleteRuleGroup

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [RuleGroup \(p. 957\)](#). You can't delete a RuleGroup if it's still used in any WebACL objects or if it still includes any rules.

If you just want to remove a RuleGroup from a WebACL, use [UpdateWebACL \(p. 502\)](#).

To permanently delete a RuleGroup from AWS WAF, perform the following steps:

1. Update the RuleGroup to remove rules, if any. For more information, see [UpdateRuleGroup \(p. 489\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteRuleGroup request.
3. Submit a DeleteRuleGroup request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RuleGroupId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 342\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[RuleGroupId \(p. 342\)](#)

The RuleGroupId of the [RuleGroup \(p. 957\)](#) that you want to delete. RuleGroupId is returned by [CreateRuleGroup \(p. 292\)](#) and by [ListRuleGroups \(p. 424\)](#).

Type: String

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

Pattern: `.*\s.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 343\)](#)

The `ChangeToken` that you used to submit the `DeleteRuleGroup` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\s.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a `Rule` from a `WebACL`, but the `Rule` isn't in the specified `WebACL`.
- You tried to remove an IP address from an `IPSet`, but the IP address isn't in the specified `IPSet`.
- You tried to remove a `ByteMatchTuple` from a `ByteMatchSet`, but the `ByteMatchTuple` isn't in the specified `WebACL`.
- You tried to add a `Rule` to a `WebACL`, but the `Rule` already exists in the specified `WebACL`.
- You tried to add a `ByteMatchTuple` to a `ByteMatchSet`, but the `ByteMatchTuple` already exists in the specified `WebACL`.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.

- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFFailedDependencyException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

DeleteSizeConstraintSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [SizeConstraintSet \(p. 968\)](#). You can't delete a `SizeConstraintSet` if it's still used in any `Rules` or if it still includes any [SizeConstraint \(p. 965\)](#) objects (any filters).

If you just want to remove a `SizeConstraintSet` from a `Rule`, use [UpdateRule \(p. 485\)](#).

To permanently delete a `SizeConstraintSet`, perform the following steps:

1. Update the `SizeConstraintSet` to remove filters, if any. For more information, see [UpdateSizeConstraintSet \(p. 493\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the `ChangeToken` parameter of a `DeleteSizeConstraintSet` request.
3. Submit a `DeleteSizeConstraintSet` request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "SizeConstraintSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 345\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

[SizeConstraintSetId \(p. 345\)](#)

The `SizeConstraintSetId` of the [SizeConstraintSet \(p. 968\)](#) that you want to delete. `SizeConstraintSetId` is returned by [CreateSizeConstraintSet \(p. 296\)](#) and by [ListSizeConstraintSets \(p. 430\)](#).

Type: String

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

Pattern: `.*\$.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 346\)](#)

The `ChangeToken` that you used to submit the `DeleteSizeConstraintSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFAccessDeniedException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteSqlInjectionMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [SqlInjectionMatchSet \(p. 972\)](#). You can't delete a SqlInjectionMatchSet if it's still used in any [Rules](#) or if it still contains any [SqlInjectionMatchTuple \(p. 976\)](#) objects.

If you just want to remove a SqlInjectionMatchSet from a Rule, use [UpdateRule \(p. 485\)](#).

To permanently delete a SqlInjectionMatchSet from AWS WAF, perform the following steps:

1. Update the SqlInjectionMatchSet to remove filters, if any. For more information, see [UpdateSqlInjectionMatchSet \(p. 498\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteSqlInjectionMatchSet request.
3. Submit a DeleteSqlInjectionMatchSet request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "SqlInjectionMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 348\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\s.*

Required: Yes

[SqlInjectionMatchSetId \(p. 348\)](#)

The `SqlInjectionMatchSetId` of the [SqlInjectionMatchSet \(p. 972\)](#) that you want to delete. `SqlInjectionMatchSetId` is returned by [CreateSqlInjectionMatchSet \(p. 300\)](#) and by [ListSqlInjectionMatchSets \(p. 433\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 349\)](#)

The `ChangeToken` that you used to submit the `DeleteSqlInjectionMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFAccessDeniedException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteWebACL

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [WebACL \(p. 985\)](#). You can't delete a WebACL if it still contains any Rules.

To delete a WebACL, perform the following steps:

1. Update the WebACL to remove Rules, if any. For more information, see [UpdateWebACL \(p. 502\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteWebACL request.
3. Submit a DeleteWebACL request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "WebACLId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 351\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[WebACLId \(p. 351\)](#)

The WebACLId of the [WebACL \(p. 985\)](#) that you want to delete. WebACLId is returned by [CreateWebACL \(p. 304\)](#) and by [ListWebACLs \(p. 442\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

ChangeToken (p. 352)

The `ChangeToken` that you used to submit the `DeleteWebACL` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

DeleteXssMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes an [XssMatchSet \(p. 989\)](#). You can't delete an XssMatchSet if it's still used in any Rules or if it still contains any [XssMatchTuple \(p. 993\)](#) objects.

If you just want to remove an XssMatchSet from a Rule, use [UpdateRule \(p. 485\)](#).

To permanently delete an XssMatchSet from AWS WAF, perform the following steps:

1. Update the XssMatchSet to remove filters, if any. For more information, see [UpdateXssMatchSet \(p. 507\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteXssMatchSet request.
3. Submit a DeleteXssMatchSet request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "XssMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 354\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[XssMatchSetId \(p. 354\)](#)

The XssMatchSetId of the [XssMatchSet \(p. 989\)](#) that you want to delete. XssMatchSetId is returned by [CreateXssMatchSet \(p. 313\)](#) and by [ListXssMatchSets \(p. 445\)](#).

Type: String

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

Pattern: `.*\$.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 355\)](#)

The `ChangeToken` that you used to submit the `DeleteXssMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFAccessDeniedException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

GetByteMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [ByteMatchSet \(p. 912\)](#) specified by `ByteMatchSetId`.

Request Syntax

```
{  
    "ByteMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ByteMatchSetId (p. 357)

The `ByteMatchSetId` of the [ByteMatchSet \(p. 912\)](#) that you want to get. `ByteMatchSetId` is returned by [CreateByteMatchSet \(p. 266\)](#) and by [ListByteMatchSets \(p. 403\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ByteMatchSet": {  
        "ByteMatchSetId": "string",  
        "ByteMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "PositionalConstraint": "string",  
                "TargetString": blob,  
                "TextTransformation": "string"  
            }  
        ],  
        "Name": "string"  
    }  
}
```

Response Elements

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

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

ByteMatchSet (p. 357)

Information about the [ByteMatchSet \(p. 912\)](#) that you specified in the GetByteMatchSet request. For more information, see the following topics:

- [ByteMatchSet \(p. 912\)](#): Contains ByteMatchSetId, ByteMatchTuples, and Name
- [ByteMatchTuples](#): Contains an array of [ByteMatchTuple \(p. 916\)](#) objects. Each ByteMatchTuple object contains [FieldToMatch \(p. 921\)](#), PositionalConstraint, TargetString, and TextTransformation
- [FieldToMatch \(p. 921\)](#): Contains Data and Type

Type: [ByteMatchSet \(p. 912\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetChangeToken

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

When you want to create, update, or delete AWS WAF objects, get a change token and include the change token in the create, update, or delete request. Change tokens ensure that your application doesn't submit conflicting requests to AWS WAF.

Each create, update, or delete request must use a unique change token. If your application submits a GetChangeToken request and then submits a second GetChangeToken request before submitting a create, update, or delete request, the second GetChangeToken request returns the same value as the first GetChangeToken request.

When you use a change token in a create, update, or delete request, the status of the change token changes to **PENDING**, which indicates that AWS WAF is propagating the change to all AWS WAF servers. Use GetChangeTokenStatus to determine the status of your change token.

Response Syntax

```
{  
    "ChangeToken": "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.

ChangeToken (p. 360)

The ChangeToken that you used in the request. Use this value in a GetChangeTokenStatus request to get the current status of the request.

Type: String

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

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

GetChangeTokenStatus

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the status of a ChangeToken that you got by calling [GetChangeToken \(p. 360\)](#). ChangeTokenStatus is one of the following values:

- **PROVISIONED**: You requested the change token by calling GetChangeToken, but you haven't used it yet in a call to create, update, or delete an AWS WAF object.
- **PENDING**: AWS WAF is propagating the create, update, or delete request to all AWS WAF servers.
- **INSYNC**: Propagation is complete.

Request Syntax

```
{  
    "ChangeToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 362\)](#)

The change token for which you want to get the status. This change token was previously returned in the GetChangeToken response.

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeTokenStatus": "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.

[ChangeTokenStatus \(p. 362\)](#)

The status of the change token.

Type: String

Valid Values: PROVISIONED | PENDING | INSYNC

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetGeoMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [GeoMatchSet \(p. 925\)](#) that is specified by `GeoMatchSetId`.

Request Syntax

```
{  
    "GeoMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

`GeoMatchSetId` (p. 364)

The `GeoMatchSetId` of the [GeoMatchSet \(p. 925\)](#) that you want to get. `GeoMatchSetId` is returned by [CreateGeoMatchSet \(p. 270\)](#) and by [ListGeoMatchSets \(p. 406\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "GeoMatchSet": {  
        "GeoMatchConstraints": [  
            {  
                "Type": "string",  
                "Value": "string"  
            }  
        ],  
        "GeoMatchSetId": "string",  
        "Name": "string"  
    }  
}
```

Response Elements

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

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

GeoMatchSet (p. 364)

Information about the [GeoMatchSet \(p. 925\)](#) that you specified in the GetGeoMatchSet request. This includes the Type, which for a GeoMatchConstraint is always Country, as well as the Value, which is the identifier for a specific country.

Type: [GeoMatchSet \(p. 925\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetIPSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [IPSet \(p. 932\)](#) that is specified by `IPSetId`.

Request Syntax

```
{  
    "IPSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

`IPSetId` (p. 366)

The `IPSetId` of the [IPSet \(p. 932\)](#) that you want to get. `IPSetId` is returned by [CreateIPSet \(p. 274\)](#) and by [ListIPSets \(p. 409\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "IPSet": {  
        "IPSetDescriptors": [  
            {  
                "Type": "string",  
                "Value": "string"  
            }  
        ],  
        "IPSetId": "string",  
        "Name": "string"  
    }  
}
```

Response Elements

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

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

IPSet (p. 366)

Information about the [IPSet \(p. 932\)](#) that you specified in the `GetIPSet` request. For more information, see the following topics:

- [IPSet \(p. 932\)](#): Contains `IPSetDescriptors`, `IPSetId`, and `Name`
- `IPSetDescriptors`: Contains an array of [IPSetDescriptor \(p. 934\)](#) objects. Each `IPSetDescriptor` object contains `Type` and `Value`

Type: [IPSet \(p. 932\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetLoggingConfiguration

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [LoggingConfiguration](#) (p. 938) for the specified web ACL.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 1083).

The request accepts the following data in JSON format.

ResourceArn (p. 368)

The Amazon Resource Name (ARN) of the web ACL for which you want to get the [LoggingConfiguration](#) (p. 938).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "LoggingConfiguration": {  
        "LogDestinationConfigs": [ "string" ],  
        "RedactedFields": [  
            {  
                "Data": "string",  
                "Type": "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.

LoggingConfiguration (p. 368)

The [LoggingConfiguration \(p. 938\)](#) for the specified web ACL.

Type: [LoggingConfiguration \(p. 938\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetPermissionPolicy

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF , use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the IAM policy attached to the RuleGroup.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceArn (p. 370)

The Amazon Resource Name (ARN) of the RuleGroup for which you want to get the policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "Policy": "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.

Policy (p. 370)

The IAM policy attached to the specified RuleGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 395000.

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetRateBasedRule

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [RateBasedRule \(p. 942\)](#) that is specified by the `RuleId` that you included in the `GetRateBasedRule` request.

Request Syntax

```
{  
    "RuleId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

RuleId (p. 372)

The `RuleId` of the [RateBasedRule \(p. 942\)](#) that you want to get. `RuleId` is returned by [CreateRateBasedRule \(p. 277\)](#) and by [ListRateBasedRules \(p. 415\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "Rule": {  
        "MatchPredicates": [  
            {  
                "DataId": "string",  
                "Negated": boolean,  
                "Type": "string"  
            }  
        ],  
        "MetricName": "string",  
        "Name": "string",  
        "RateKey": "string",  
        "RateLimit": number,  
        "RuleId": "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.

Rule (p. 372)

Information about the [RateBasedRule \(p. 942\)](#) that you specified in the `GetRateBasedRule` request.

Type: [RateBasedRule \(p. 942\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetRateBasedRuleManagedKeys

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of IP addresses currently being blocked by the [RateBasedRule \(p. 942\)](#) that is specified by the `RuleId`. The maximum number of managed keys that will be blocked is 10,000. If more than 10,000 addresses exceed the rate limit, the 10,000 addresses with the highest rates will be blocked.

Request Syntax

```
{  
    "NextMarker": "string",  
    "RuleId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[NextMarker \(p. 374\)](#)

A null value and not currently used. Do not include this in your request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

[RuleId \(p. 374\)](#)

The `RuleId` of the [RateBasedRule \(p. 942\)](#) for which you want to get a list of `ManagedKeys`. `RuleId` is returned by [CreateRateBasedRule \(p. 277\)](#) and by [ListRateBasedRules \(p. 415\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ManagedKeys": [ "string" ],
```

```
    "NextMarker": "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.

ManagedKeys (p. 374)

An array of IP addresses that currently are blocked by the specified [RateBasedRule \(p. 942\)](#).

Type: Array of strings

NextMarker (p. 374)

A null value and not currently used.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\s.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetRegexMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [RegexMatchSet \(p. 944\)](#) specified by `RegexMatchSetId`.

Request Syntax

```
{  
    "RegexMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

`RegexMatchSetId` (p. 377)

The `RegexMatchSetId` of the [RegexMatchSet \(p. 944\)](#) that you want to get. `RegexMatchSetId` is returned by [CreateRegexMatchSet \(p. 282\)](#) and by [ListRegexMatchSets \(p. 418\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "RegexMatchSet": {  
        "Name": "string",  
        "RegexMatchSetId": "string",  
        "RegexMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "RegexPatternSetId": "string",  
                "TextTransformation": "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.

[RegexMatchSet \(p. 377\)](#)

Information about the [RegexMatchSet \(p. 944\)](#) that you specified in the GetRegexMatchSet request. For more information, see [RegexMatchTuple \(p. 948\)](#).

Type: [RegexMatchSet \(p. 944\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetRegexPatternSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [RegexPatternSet \(p. 951\)](#) specified by `RegexPatternSetId`.

Request Syntax

```
{  
    "RegexPatternSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

`RegexPatternSetId` (p. 379)

The `RegexPatternSetId` of the [RegexPatternSet \(p. 951\)](#) that you want to get. `RegexPatternSetId` is returned by [CreateRegexPatternSet \(p. 285\)](#) and by [ListRegexPatternSets \(p. 421\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "RegexPatternSet": {  
        "Name": "string",  
        "RegexPatternSetId": "string",  
        "RegexPatternStrings": [ "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.

[RegexPatternSet \(p. 379\)](#)

Information about the [RegexPatternSet \(p. 951\)](#) that you specified in the `GetRegexPatternSet` request, including the identifier of the pattern set and the regular expression patterns you want AWS WAF to search for.

Type: [RegexPatternSet \(p. 951\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetRule

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [Rule \(p. 955\)](#) that is specified by the `RuleId` that you included in the `GetRule` request.

Request Syntax

```
{  
    "RuleId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

RuleId (p. 381)

The `RuleId` of the [Rule \(p. 955\)](#) that you want to get. `RuleId` is returned by [CreateRule \(p. 288\)](#) and by [ListRules \(p. 427\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "Rule": {  
        "MetricName": "string",  
        "Name": "string",  
        "Predicates": [  
            {  
                "DataId": "string",  
                "Negated": boolean,  
                "Type": "string"  
            }  
        ],  
        "RuleId": "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.

Rule (p. 381)

Information about the [Rule \(p. 955\)](#) that you specified in the `GetRule` request. For more information, see the following topics:

- [Rule \(p. 955\)](#): Contains `MetricName`, `Name`, an array of `Predicate` objects, and `RuleId`
- [Predicate \(p. 940\)](#): Each `Predicate` object contains `DataId`, `Negated`, and `Type`

Type: [Rule \(p. 955\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetRuleGroup

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [RuleGroup \(p. 957\)](#) that is specified by the `RuleGroupId` that you included in the `GetRuleGroup` request.

To view the rules in a rule group, use [ListActivatedRulesInRuleGroup \(p. 400\)](#).

Request Syntax

```
{  
    "RuleGroupId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

RuleGroupId (p. 383)

The `RuleGroupId` of the [RuleGroup \(p. 957\)](#) that you want to get. `RuleGroupId` is returned by [CreateRuleGroup \(p. 292\)](#) and by [ListRuleGroups \(p. 424\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "RuleGroup": {  
        "MetricName": "string",  
        "Name": "string",  
        "RuleGroupId": "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.

[RuleGroup \(p. 383\)](#)

Information about the [RuleGroup \(p. 957\)](#) that you specified in the GetRuleGroup request.

Type: [RuleGroup \(p. 957\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetSampledRequests

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF , use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Gets detailed information about a specified number of requests--a sample--that AWS WAF randomly selects from among the first 5,000 requests that your AWS resource received during a time range that you choose. You can specify a sample size of up to 500 requests, and you can specify any time range in the previous three hours.

`GetSampledRequests` returns a time range, which is usually the time range that you specified. However, if your resource (such as an Amazon CloudFront distribution) received 5,000 requests before the specified time range elapsed, `GetSampledRequests` returns an updated time range. This new time range indicates the actual period during which AWS WAF selected the requests in the sample.

Request Syntax

```
{  
    "MaxItems": number,  
    "RuleId": "string",  
    "TimeWindow": {  
        "EndTime": number,  
        "StartTime": number  
    },  
    "WebAclId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[MaxItems \(p. 385\)](#)

The number of requests that you want AWS WAF to return from among the first 5,000 requests that your AWS resource received during the time range. If your resource received fewer requests than the value of `MaxItems`, `GetSampledRequests` returns information about all of them.

Type: Long

Valid Range: Minimum value of 1. Maximum value of 500.

Required: Yes

[RuleId \(p. 385\)](#)

`RuleId` is one of three values:

- The `RuleId` of the `Rule` or the `RuleGroupId` of the `RuleGroup` for which you want `GetSampledRequests` to return a sample of requests.
- `Default_Action`, which causes `GetSampledRequests` to return a sample of the requests that didn't match any of the rules in the specified WebACL.

Type: String

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

Pattern: .*\S.*

Required: Yes

[TimeWindow \(p. 385\)](#)

The start date and time and the end date and time of the range for which you want GetSampledRequests to return a sample of requests. You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, z. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: [TimeWindow \(p. 982\)](#) object

Required: Yes

[WebAclId \(p. 385\)](#)

The WebAclId of the WebACL for which you want GetSampledRequests to return a sample of requests.

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "PopulationSize": number,  
    "SampledRequests": [  
        {  
            "Action": "string",  
            "Request": {  
                "ClientIP": "string",  
                "Country": "string",  
                "Headers": [  
                    {  
                        "Name": "string",  
                        "Value": "string"  
                    }  
                ],  
                "HTTPVersion": "string",  
                "Method": "string",  
                "URI": "string"  
            },  
            "RuleWithinRuleGroup": "string",  
            "Timestamp": number,  
            "Weight": number  
        }  
    ],  
    "TimeWindow": {  
        "EndTime": number,  
        "StartTime": 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.

[PopulationSize \(p. 386\)](#)

The total number of requests from which GetSampledRequests got a sample of `MaxItems` requests. If `PopulationSize` is less than `MaxItems`, the sample includes every request that your AWS resource received during the specified time range.

Type: Long

[SampledRequests \(p. 386\)](#)

A complex type that contains detailed information about each of the requests in the sample.

Type: Array of [SampledHTTPRequest \(p. 963\)](#) objects

[TimeWindow \(p. 386\)](#)

Usually, `TimeWindow` is the time range that you specified in the `GetSampledRequests` request. However, if your AWS resource received more than 5,000 requests during the time range that you specified in the request, `GetSampledRequests` returns the time range for the first 5,000 requests. Times are in Coordinated Universal Time (UTC) format.

Type: [TimeWindow \(p. 982\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)

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

GetSizeConstraintSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [SizeConstraintSet \(p. 968\)](#) specified by `SizeConstraintSetId`.

Request Syntax

```
{  
    "SizeConstraintSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

SizeConstraintSetId (p. 389)

The `SizeConstraintSetId` of the [SizeConstraintSet \(p. 968\)](#) that you want to get. `SizeConstraintSetId` is returned by [CreateSizeConstraintSet \(p. 296\)](#) and by [ListSizeConstraintSets \(p. 430\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "SizeConstraintSet": {  
        "Name": "string",  
        "SizeConstraints": [  
            {  
                "ComparisonOperator": "string",  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "Size": number,  
                "TextTransformation": "string"  
            }  
        ],  
        "SizeConstraintSetId": "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.

SizeConstraintSet (p. 389)

Information about the [SizeConstraintSet \(p. 968\)](#) that you specified in the GetSizeConstraintSet request. For more information, see the following topics:

- [SizeConstraintSet \(p. 968\)](#): Contains SizeConstraintSetId, SizeConstraints, and Name
- SizeConstraints: Contains an array of [SizeConstraint \(p. 965\)](#) objects. Each SizeConstraint object contains [FieldToMatch \(p. 921\)](#), TextTransformation, ComparisonOperator, and Size
- [FieldToMatch \(p. 921\)](#): Contains Data and Type

Type: [SizeConstraintSet \(p. 968\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)

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

GetSqlInjectionMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [SqlInjectionMatchSet \(p. 972\)](#) that is specified by `SqlInjectionMatchSetId`.

Request Syntax

```
{  
    "SqlInjectionMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

`SqlInjectionMatchSetId` (p. 392)

The `SqlInjectionMatchSetId` of the [SqlInjectionMatchSet \(p. 972\)](#) that you want to get. `SqlInjectionMatchSetId` is returned by [CreateSqlInjectionMatchSet \(p. 300\)](#) and by [ListSqlInjectionMatchSets \(p. 433\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "SqlInjectionMatchSet": {  
        "Name": "string",  
        "SqlInjectionMatchSetId": "string",  
        "SqlInjectionMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "TextTransformation": "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.

[SqlInjectionMatchSet \(p. 392\)](#)

Information about the [SqlInjectionMatchSet \(p. 972\)](#) that you specified in the GetSqlInjectionMatchSet request. For more information, see the following topics:

- [SqlInjectionMatchSet \(p. 972\)](#): Contains Name, SqlInjectionMatchSetId, and an array of SqlInjectionMatchTuple objects
- [SqlInjectionMatchTuple \(p. 976\)](#): Each SqlInjectionMatchTuple object contains FieldToMatch and TextTransformation
- [FieldToMatch \(p. 921\)](#): Contains Data and Type

Type: [SqlInjectionMatchSet \(p. 972\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetWebACL

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [WebACL \(p. 985\)](#) that is specified by `WebACLId`.

Request Syntax

```
{  
    "WebACLId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[WebACLId \(p. 395\)](#)

The `WebACLId` of the [WebACL \(p. 985\)](#) that you want to get. `WebACLId` is returned by [CreateWebACL \(p. 304\)](#) and by [ListWebACLs \(p. 442\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "WebACL": {  
        "DefaultAction": {  
            "Type": "string"  
        },  
        "MetricName": "string",  
        "Name": "string",  
        "Rules": [  
            {  
                "Action": {  
                    "Type": "string"  
                },  
                "ExcludedRules": [  
                    {  
                        "RuleId": "string"  
                    }  
                ],  
                "OverrideAction": {  
                    "Type": "string"  
                }  
            }  
        ]  
    }  
}
```

```
        "Type": "string"
    },
    "Priority": number,
    "RuleId": "string",
    "Type": "string"
}
],
"WebACLArn": "string",
"WebACLId": "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.

[WebACL \(p. 395\)](#)

Information about the [WebACL \(p. 985\)](#) that you specified in the GetWebACL request. For more information, see the following topics:

- [WebACL \(p. 985\)](#): Contains DefaultAction, MetricName, Name, an array of Rule objects, and WebACLId
- DefaultAction (Data type is [WafAction \(p. 983\)](#)): Contains Type
- Rules: Contains an array of ActivatedRule objects, which contain Action, Priority, and RuleId
- Action: Contains Type

Type: [WebACL \(p. 985\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetXssMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [XssMatchSet \(p. 989\)](#) that is specified by `XssMatchSetId`.

Request Syntax

```
{  
    "XssMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

XssMatchSetId (p. 398)

The `XssMatchSetId` of the [XssMatchSet \(p. 989\)](#) that you want to get. `XssMatchSetId` is returned by [CreateXssMatchSet \(p. 313\)](#) and by [ListXssMatchSets \(p. 445\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "XssMatchSet": {  
        "Name": "string",  
        "XssMatchSetId": "string",  
        "XssMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "TextTransformation": "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.

[XssMatchSet \(p. 398\)](#)

Information about the [XssMatchSet \(p. 989\)](#) that you specified in the GetXssMatchSet request. For more information, see the following topics:

- [XssMatchSet \(p. 989\)](#): Contains Name, XssMatchSetId, and an array of XssMatchTuple objects
- [XssMatchTuple \(p. 993\)](#): Each XssMatchTuple object contains FieldToMatch and TextTransformation
- [FieldToMatch \(p. 921\)](#): Contains Data and Type

Type: [XssMatchSet \(p. 989\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

ListActivatedRulesInRuleGroup

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF , use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [ActivatedRule \(p. 909\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string",  
    "RuleGroupId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Limit \(p. 400\)](#)

Specifies the number of `ActivatedRules` that you want AWS WAF to return for this request. If you have more `ActivatedRules` than the number that you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of `ActivatedRules`.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

[NextMarker \(p. 400\)](#)

If you specify a value for `Limit` and you have more `ActivatedRules` than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `ActivatedRules`. For the second and subsequent `ListActivatedRulesInRuleGroup` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `ActivatedRules`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

[RuleGroupId \(p. 400\)](#)

The `RuleGroupId` of the [RuleGroup \(p. 957\)](#) for which you want to get a list of [ActivatedRule \(p. 909\)](#) objects.

Type: String

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

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{  
    "ActivatedRules": [  
        {  
            "Action": {  
                "Type": "string"  
            },  
            "ExcludedRules": [  
                {  
                    "RuleId": "string"  
                }  
            ],  
            "OverrideAction": {  
                "Type": "string"  
            },  
            "Priority": number,  
            "RuleId": "string",  
            "Type": "string"  
        }  
    ],  
    "NextMarker": "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.

ActivatedRules (p. 401)

An array of ActivatedRules objects.

Type: Array of [ActivatedRule \(p. 909\)](#) objects

NextMarker (p. 401)

If you have more ActivatedRules than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more ActivatedRules, submit another `ListActivatedRulesInRuleGroup` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

ListByteMatchSets

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [ByteMatchSetSummary \(p. 914\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 403)

Specifies the number of ByteMatchSet objects that you want AWS WAF to return for this request. If you have more ByteMatchSets objects than the number you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of ByteMatchSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 403)

If you specify a value for `Limit` and you have more ByteMatchSets than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of ByteMatchSets. For the second and subsequent `ListByteMatchSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of ByteMatchSets.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"ByteMatchSets": [  
    {  
        "ByteMatchSetId": "string",  
        "Name": "string"  
    }  
,  
    "NextMarker": "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.

ByteMatchSets (p. 403)

An array of [ByteMatchSetSummary \(p. 914\)](#) objects.

Type: Array of [ByteMatchSetSummary \(p. 914\)](#) objects

NextMarker (p. 403)

If you have more ByteMatchSet objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more ByteMatchSet objects, submit another `ListByteMatchSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListGeoMatchSets

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [GeoMatchSetSummary \(p. 927\)](#) objects in the response.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 406)

Specifies the number of GeoMatchSet objects that you want AWS WAF to return for this request. If you have more GeoMatchSet objects than the number you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of GeoMatchSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 406)

If you specify a value for `Limit` and you have more GeoMatchSets than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of GeoMatchSet objects. For the second and subsequent `ListGeoMatchSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of GeoMatchSet objects.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"GeoMatchSets": [  
    {  
        "GeoMatchSetId": "string",  
        "Name": "string"  
    }  
,  
    "NextMarker": "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.

GeoMatchSets (p. 406)

An array of [GeoMatchSetSummary \(p. 927\)](#) objects.

Type: Array of [GeoMatchSetSummary \(p. 927\)](#) objects

NextMarker (p. 406)

If you have more GeoMatchSet objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more GeoMatchSet objects, submit another `ListGeoMatchSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListIPSets

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [IPSetSummary](#) (p. 936) objects in the response.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 1083).

The request accepts the following data in JSON format.

Limit (p. 409)

Specifies the number of `IPSet` objects that you want AWS WAF to return for this request. If you have more `IPSet` objects than the number you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of `IPSet` objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 409)

AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `IPSets`. For the second and subsequent `ListIPSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `IPSets`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{  
    "IPSets": [  
        {
```

```
        "IPSetId": "string",
        "Name": "string"
    }
],
"NextMarker": "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.

IPSets (p. 409)

An array of [IPSetSummary \(p. 936\)](#) objects.

Type: Array of [IPSetSummary \(p. 936\)](#) objects

NextMarker (p. 409)

To list more IPSet objects, submit another `ListIPSets` request, and in the next request use the `NextMarker` response value as the `NextMarker` value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)

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

ListLoggingConfigurations

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [LoggingConfiguration \(p. 938\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 412)

Specifies the number of LoggingConfigurations that you want AWS WAF to return for this request. If you have more LoggingConfigurations than the number that you specify for Limit, the response includes a NextMarker value that you can use to get another batch of LoggingConfigurations.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 412)

If you specify a value for Limit and you have more LoggingConfigurations than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of LoggingConfigurations. For the second and subsequent ListLoggingConfigurations requests, specify the value of NextMarker from the previous response to get information about another batch of ListLoggingConfigurations.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"LoggingConfigurations": [
    {
        "LogDestinationConfigs": [ "string" ],
        "RedactedFields": [
            {
                "Data": "string",
                "Type": "string"
            }
        ],
        "ResourceArn": "string"
    }
],
"NextMarker": "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.

[LoggingConfigurations \(p. 412\)](#)

An array of [LoggingConfiguration \(p. 938\)](#) objects.

Type: Array of [LoggingConfiguration \(p. 938\)](#) objects

[NextMarker \(p. 412\)](#)

If you have more LoggingConfigurations than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more LoggingConfigurations, submit another `ListLoggingConfigurations` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than `INSERT` or `DELETE`.
- You tried to create a WebACL with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.

- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

ListRateBasedRules

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [RuleSummary \(p. 961\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 415)

Specifies the number of Rules that you want AWS WAF to return for this request. If you have more Rules than the number that you specify for Limit, the response includes a NextMarker value that you can use to get another batch of Rules.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 415)

If you specify a value for Limit and you have more Rules than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of Rules. For the second and subsequent ListRateBasedRules requests, specify the value of NextMarker from the previous response to get information about another batch of Rules.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\S.*

Required: No

Response Syntax

```
{  
    "NextMarker": "string",
```

```
"Rules": [  
    {  
        "Name": "string",  
        "RuleId": "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.

[NextMarker \(p. 415\)](#)

If you have more `Rules` than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more `Rules`, submit another `ListRateBasedRules` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

[Rules \(p. 415\)](#)

An array of [RuleSummary \(p. 961\)](#) objects.

Type: Array of [RuleSummary \(p. 961\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListRegexMatchSets

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [RegexMatchSetSummary \(p. 946\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 418)

Specifies the number of `RegexMatchSet` objects that you want AWS WAF to return for this request. If you have more `RegexMatchSet` objects than the number you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of `RegexMatchSet` objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 418)

If you specify a value for `Limit` and you have more `RegexMatchSet` objects than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `ByteMatchSets`. For the second and subsequent `ListRegexMatchSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `RegexMatchSet` objects.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"NextMarker": "string",
"RegexMatchSets": [
    {
        "Name": "string",
        "RegexMatchSetId": "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.

[NextMarker \(p. 418\)](#)

If you have more RegexMatchSet objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more RegexMatchSet objects, submit another `ListRegexMatchSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

[RegexMatchSets \(p. 418\)](#)

An array of [RegexMatchSetSummary \(p. 946\)](#) objects.

Type: Array of [RegexMatchSetSummary \(p. 946\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListRegexPatternSets

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF , use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [RegexPatternSetSummary \(p. 953\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 421)

Specifies the number of RegexPatternSet objects that you want AWS WAF to return for this request. If you have more RegexPatternSet objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of RegexPatternSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 421)

If you specify a value for Limit and you have more RegexPatternSet objects than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of RegexPatternSet objects. For the second and subsequent ListRegexPatternSets requests, specify the value of NextMarker from the previous response to get information about another batch of RegexPatternSet objects.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"NextMarker": "string",
"RegexPatternSets": [
    {
        "Name": "string",
        "RegexPatternSetId": "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.

NextMarker ([p. 421](#))

If you have more RegexPatternSet objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more RegexPatternSet objects, submit another `ListRegexPatternSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

RegexPatternSets ([p. 421](#))

An array of [RegexPatternSetSummary](#) ([p. 953](#)) objects.

Type: Array of [RegexPatternSetSummary](#) ([p. 953](#)) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListRuleGroups

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [RuleGroup \(p. 957\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 424)

Specifies the number of RuleGroups that you want AWS WAF to return for this request. If you have more RuleGroups than the number that you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of RuleGroups.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 424)

If you specify a value for `Limit` and you have more RuleGroups than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of RuleGroups. For the second and subsequent `ListRuleGroups` requests, specify the value of `NextMarker` from the previous response to get information about another batch of RuleGroups.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{  
    "NextMarker": "string",
```

```
"RuleGroups": [  
    {  
        "Name": "string",  
        "RuleGroupId": "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.

[NextMarker \(p. 424\)](#)

If you have more RuleGroups than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more RuleGroups, submit another `ListRuleGroups` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

[RuleGroups \(p. 424\)](#)

An array of [RuleGroup \(p. 957\)](#) objects.

Type: Array of [RuleGroupSummary \(p. 959\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

ListRules

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [RuleSummary \(p. 961\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 427)

Specifies the number of `Rules` that you want AWS WAF to return for this request. If you have more `Rules` than the number that you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of `Rules`.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 427)

If you specify a value for `Limit` and you have more `Rules` than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `Rules`. For the second and subsequent `ListRules` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `Rules`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{  
    "NextMarker": "string",
```

```
"Rules": [  
    {  
        "Name": "string",  
        "RuleId": "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.

[NextMarker \(p. 427\)](#)

If you have more `Rules` than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more `Rules`, submit another `ListRules` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

[Rules \(p. 427\)](#)

An array of [RuleSummary \(p. 961\)](#) objects.

Type: Array of [RuleSummary \(p. 961\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListSizeConstraintSets

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [SizeConstraintSetSummary \(p. 970\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 430)

Specifies the number of `SizeConstraintSet` objects that you want AWS WAF to return for this request. If you have more `SizeConstraintSets` objects than the number you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of `SizeConstraintSet` objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 430)

If you specify a value for `Limit` and you have more `SizeConstraintSets` than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `SizeConstraintSets`. For the second and subsequent `ListSizeConstraintSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `SizeConstraintSets`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"NextMarker": "string",
"SizeConstraintSets": [
    {
        "Name": "string",
        "SizeConstraintSetId": "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.

[NextMarker \(p. 430\)](#)

If you have more `SizeConstraintSet` objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more `SizeConstraintSet` objects, submit another `ListSizeConstraintSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

[SizeConstraintSets \(p. 430\)](#)

An array of [SizeConstraintSetSummary \(p. 970\)](#) objects.

Type: Array of [SizeConstraintSetSummary \(p. 970\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListSqlInjectionMatchSets

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [SqlInjectionMatchSet \(p. 972\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 433)

Specifies the number of [SqlInjectionMatchSet \(p. 972\)](#) objects that you want AWS WAF to return for this request. If you have more SqlInjectionMatchSet objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of Rules.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 433)

If you specify a value for Limit and you have more [SqlInjectionMatchSet \(p. 972\)](#) objects than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of SqlInjectionMatchSets. For the second and subsequent ListSqlInjectionMatchSets requests, specify the value of NextMarker from the previous response to get information about another batch of SqlInjectionMatchSets.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"NextMarker": "string",
"SqlInjectionMatchSets": [
    {
        "Name": "string",
        "SqlInjectionMatchSetId": "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.

NextMarker ([p. 433](#))

If you have more [SqlInjectionMatchSet](#) ([p. 972](#)) objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more `SqlInjectionMatchSet` objects, submit another `ListSqlInjectionMatchSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

SqlInjectionMatchSets ([p. 433](#))

An array of [SqlInjectionMatchSetSummary](#) ([p. 974](#)) objects.

Type: Array of [SqlInjectionMatchSetSummary](#) ([p. 974](#)) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#) ([p. 1085](#)).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListSubscribedRuleGroups

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [RuleGroup \(p. 957\)](#) objects that you are subscribed to.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 436)

Specifies the number of subscribed rule groups that you want AWS WAF to return for this request. If you have more objects than the number you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 436)

If you specify a value for `Limit` and you have more `ByteMatchSet`s subscribed rule groups than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of subscribed rule groups. For the second and subsequent `ListSubscribedRuleGroupsRequest` requests, specify the value of `NextMarker` from the previous response to get information about another batch of subscribed rule groups.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"NextMarker": "string",
"RuleGroups": [
    {
        "MetricName": "string",
        "Name": "string",
        "RuleGroupId": "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.

[NextMarker \(p. 436\)](#)

If you have more objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more objects, submit another `ListSubscribedRuleGroups` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

[RuleGroups \(p. 436\)](#)

An array of [RuleGroup \(p. 957\)](#) objects.

Type: Array of [SubscribedRuleGroupSummary \(p. 978\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListTagsForResource

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Retrieves the tags associated with the specified AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, 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.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string",  
    "ResourceARN": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Limit \(p. 439\)](#)

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

[NextMarker \(p. 439\)](#)

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

[ResourceARN \(p. 439\)](#)

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "NextMarker": "string",  
    "TagInfoForResource": [  
        {  
            "ResourceARN": "string",  
            "TagList": [  
                {  
                    "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.

[NextMarker \(p. 440\)](#)

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

[TagInfoForResource \(p. 440\)](#)

Type: [TagInfoForResource \(p. 981\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFBadRequestException

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.

- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

ListWebACLS

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [WebACLSummary \(p. 987\)](#) objects in the response.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 442)

Specifies the number of WebACL objects that you want AWS WAF to return for this request. If you have more WebACL objects than the number that you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of WebACL objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 442)

If you specify a value for `Limit` and you have more WebACL objects than the number that you specify for `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of WebACL objects. For the second and subsequent `ListWebACLS` requests, specify the value of `NextMarker` from the previous response to get information about another batch of WebACL objects.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"NextMarker": "string",
"WebACLs": [
    {
        "Name": "string",
        "WebACLId": "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.

[NextMarker \(p. 442\)](#)

If you have more WebACL objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more WebACL objects, submit another `ListWebACLs` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

[WebACLs \(p. 442\)](#)

An array of [WebACLSummary \(p. 987\)](#) objects.

Type: Array of [WebACLSummary \(p. 987\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListXssMatchSets

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [XssMatchSet \(p. 989\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 445)

Specifies the number of [XssMatchSet \(p. 989\)](#) objects that you want AWS WAF to return for this request. If you have more XssMatchSet objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of Rules.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 445)

If you specify a value for Limit and you have more [XssMatchSet \(p. 989\)](#) objects than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of XssMatchSets. For the second and subsequent ListXssMatchSets requests, specify the value of NextMarker from the previous response to get information about another batch of XssMatchSets.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"NextMarker": "string",
"XssMatchSets": [
    {
        "Name": "string",
        "XssMatchSetId": "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.

NextMarker ([p. 445](#))

If you have more [XssMatchSet](#) ([p. 989](#)) objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more `XssMatchSet` objects, submit another `ListXssMatchSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

XssMatchSets ([p. 445](#))

An array of [XssMatchSetSummary](#) ([p. 991](#)) objects.

Type: Array of [XssMatchSetSummary](#) ([p. 991](#)) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#) ([p. 1085](#)).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

PutLoggingConfiguration

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Associates a [LoggingConfiguration](#) (p. 938) with a specified web ACL.

You can access information about all traffic that AWS WAF inspects using the following steps:

1. Create an Amazon Kinesis Data Firehose.

Create the data firehose with a PUT source and in the region that you are operating. However, if you are capturing logs for Amazon CloudFront, always create the firehose in US East (N. Virginia).

Give the data firehose a name that starts with the prefix `aws-waf-logs-`. For example, `aws-waf-logs-us-east-2-analytics`.

Note

Do not create the data firehose using a `Kinesis stream` as your source.

2. Associate that firehose to your web ACL using a `PutLoggingConfiguration` request.

When you successfully enable logging using a `PutLoggingConfiguration` request, AWS WAF will create a service linked role with the necessary permissions to write logs to the Amazon Kinesis Data Firehose. For more information, see [Logging Web ACL Traffic Information](#) in the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "LoggingConfiguration": {  
        "LogDestinationConfigs": [ "string" ],  
        "RedactedFields": [  
            {  
                "Data": "string",  
                "Type": "string"  
            }  
        ],  
        "ResourceArn": "string"  
    }  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 1083).

The request accepts the following data in JSON format.

[LoggingConfiguration](#) (p. 448)

The Amazon Kinesis Data Firehose that contains the inspected traffic information, the redacted fields details, and the Amazon Resource Name (ARN) of the web ACL to monitor.

Note

When specifying Type in RedactedFields, you must use one of the following values: URI, QUERY_STRING, HEADER, or METHOD.

Type: [LoggingConfiguration \(p. 938\)](#) object

Required: Yes

Response Syntax

```
{  
    "LoggingConfiguration": {  
        "LogDestinationConfigs": [ "string" ],  
        "RedactedFields": [  
            {  
                "Data": "string",  
                "Type": "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.

[LoggingConfiguration \(p. 449\)](#)

The [LoggingConfiguration \(p. 938\)](#) that you submitted in the request.

Type: [LoggingConfiguration \(p. 938\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFServiceLinkedRoleErrorException

AWS WAF is not able to access the service linked role. This can be caused by a previous PutLoggingConfiguration request, which can lock the service linked role for about 20 seconds. Please try your request again. The service linked role can also be locked by a previous DeleteServiceLinkedRole request, which can lock the role for 15 minutes or more. If you recently made a DeleteServiceLinkedRole, wait at least 15 minutes and try the request again.

If you receive this same exception again, you will have to wait additional time until the role is unlocked.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

PutPermissionPolicy

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Attaches an IAM policy to the specified resource. The only supported use for this action is to share a RuleGroup across accounts.

The PutPermissionPolicy is subject to the following restrictions:

- You can attach only one policy with each PutPermissionPolicy request.
- The policy must include an `Effect`, `Action` and `Principal`.
- `Effect` must specify `Allow`.
- The `Action` in the policy must be `waf:UpdateWebACL`, `waf-regional:UpdateWebACL`, `waf:GetRuleGroup` and `waf-regional:GetRuleGroup`. Any extra or wildcard actions in the policy will be rejected.
- The policy cannot include a `Resource` parameter.
- The ARN in the request must be a valid RuleGroup ARN and the RuleGroup must exist in the same region.
- The user making the request must be the owner of the RuleGroup.
- Your policy must be composed using IAM Policy version 2012-10-17.

For more information, see [Policies and permissions in IAM](#).

An example of a valid policy parameter is shown in the Examples section below.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Policy (p. 451)

The policy to attach to the specified RuleGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 395000.

Pattern: `.*\S.*`

Required: Yes

ResourceArn (p. 451)

The Amazon Resource Name (ARN) of the RuleGroup to which you want to attach the policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidPermissionPolicyException

The operation failed because the specified policy is not in the proper format.

The policy is subject to the following restrictions:

- You can attach only one policy with each `PutPermissionPolicy` request.
- The policy must include an `Effect`, `Action` and `Principal`.
- `Effect` must specify `Allow`.
- The `Action` in the policy must be `waf:UpdateWebACL`, `waf-regional:UpdateWebACL`, `waf:GetRuleGroup` and `waf-regional:GetRuleGroup`. Any extra or wildcard actions in the policy will be rejected.
- The policy cannot include a `Resource` parameter.
- The ARN in the request must be a valid WAF RuleGroup ARN and the RuleGroup must exist in the same region.
- The user making the request must be the owner of the RuleGroup.
- Your policy must be composed using IAM Policy version 2012-10-17.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

Examples

Example policy parameter - No escape characters

This example illustrates one usage of PutPermissionPolicy.

```
{  
    "Version": "2012-10-17",  
    "Statement": [  
        {  
            "Effect": "Allow",  
            "Principal": {  
                "AWS": "arn:aws:iam::111111111111:user/MyUserName"  
            },  
            "Action": [  
                "waf:UpdateWebACL",  
                "waf-regional:UpdateWebACL",  
                "waf:GetRuleGroup",  
                "waf-regional:GetRuleGroup"  
            ]  
        }  
    ]  
}
```

Example policy parameter - ()

This example illustrates one usage of PutPermissionPolicy.

```
{"\"Version\":\"2012-10-17\", \"Statement\":[{\"Effect\":\"Allow\", \"Principal\":{\"AWS\": \"arn:aws:iam::111111111111:user/MyUserName\"}, \"Action\":[\"waf:UpdateWebACL\", \"waf-regional:UpdateWebACL\", \"waf:GetRuleGroup\", \"waf-regional:GetRuleGroup\"]}]}{
```

See Also

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

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

TagResource

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Associates tags with the specified AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, 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.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can use this action to tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ResourceARN \(p. 454\)](#)

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\s.*

Required: Yes

[Tags \(p. 454\)](#)

Type: Array of [Tag \(p. 980\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFBadRequestException

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than `INSERT` or `DELETE`.
- You tried to create a WebACL with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a RateBasedRule with a `RateKey` value other than `IP`.
- You tried to update a WebACL with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a ByteMatchSet with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a ByteMatchSet with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

UntagResource

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF , use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceARN (p. 457)

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\S.*

Required: Yes

TagKeys (p. 457)

Type: Array of strings

Array Members: Minimum number of 1 item.

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

Pattern: .*\S.*

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFBadRequestException

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

UpdateByteMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [ByteMatchTuple \(p. 916\)](#) objects (filters) in a [ByteMatchSet \(p. 912\)](#). For each ByteMatchTuple object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change a ByteMatchSetUpdate object, you delete the existing object and add a new one.
- The part of a web request that you want AWS WAF to inspect, such as a query string or the value of the User-Agent header.
- The bytes (typically a string that corresponds with ASCII characters) that you want AWS WAF to look for. For more information, including how you specify the values for the AWS WAF API and the AWS CLI or AWS SDKs, see [TargetString](#) in the [ByteMatchTuple \(p. 916\)](#) data type.
- Where to look, such as at the beginning or the end of a query string.
- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

For example, you can add a ByteMatchSetUpdate object that matches web requests in which User-Agent headers contain the string BadBot. You can then configure AWS WAF to block those requests.

To create and configure a ByteMatchSet, perform the following steps:

1. Create a ByteMatchSet. For more information, see [CreateByteMatchSet \(p. 266\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of an UpdateByteMatchSet request.
3. Submit an UpdateByteMatchSet request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ByteMatchSetId": "string",  
    "ChangeToken": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "ByteMatchTuple": {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "PositionalConstraint": "string",  
                "TargetString": blob,  
                "TextTransformation": "string"  
            }  
        }  
    ]  
}
```

```
        }
    ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ByteMatchSetId \(p. 459\)](#)

The `ByteMatchSetId` of the [ByteMatchSet \(p. 912\)](#) that you want to update. `ByteMatchSetId` is returned by [CreateByteMatchSet \(p. 266\)](#) and by [ListByteMatchSets \(p. 403\)](#).

Type: String

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

Pattern: `.*\$.*`

Required: Yes

[ChangeToken \(p. 459\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: `.*\$.*`

Required: Yes

[Updates \(p. 459\)](#)

An array of `ByteMatchSetUpdate` objects that you want to insert into or delete from a [ByteMatchSet \(p. 912\)](#). For more information, see the applicable data types:

- [ByteMatchSetUpdate \(p. 915\)](#): Contains `Action` and `ByteMatchTuple`
- [ByteMatchTuple \(p. 916\)](#): Contains `FieldToMatch`, `PositionalConstraint`, `TargetString`, and `TextTransformation`
- [FieldToMatch \(p. 921\)](#): Contains `Data` and `Type`

Type: Array of [ByteMatchSetUpdate \(p. 915\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{
  "ChangeToken": "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.

ChangeToken (p. 460)

The `ChangeToken` that you used to submit the `UpdateByteMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#) (p. 362).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1085).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a `Rule` from a `WebACL`, but the `Rule` isn't in the specified `WebACL`.
- You tried to remove an IP address from an `IPSet`, but the IP address isn't in the specified `IPSet`.
- You tried to remove a `ByteMatchTuple` from a `ByteMatchSet`, but the `ByteMatchTuple` isn't in the specified `WebACL`.
- You tried to add a `Rule` to a `WebACL`, but the `Rule` already exists in the specified `WebACL`.
- You tried to add a `ByteMatchTuple` to a `ByteMatchSet`, but the `ByteMatchTuple` already exists in the specified `WebACL`.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.

- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a `Rule` to or delete a `Rule` from a `WebACL` that doesn't exist.
- You tried to add a `ByteMatchSet` to or delete a `ByteMatchSet` from a `Rule` that doesn't exist.
- You tried to add an IP address to or delete an IP address from an `IPSet` that doesn't exist.
- You tried to add a `ByteMatchTuple` to or delete a `ByteMatchTuple` from a `ByteMatchSet` that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

UpdateGeoMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [GeoMatchConstraint \(p. 923\)](#) objects in an GeoMatchSet. For each GeoMatchConstraint object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change an GeoMatchConstraint object, you delete the existing object and add a new one.
- The `Type`. The only valid value for `Type` is `Country`.
- The `Value`, which is a two character code for the country to add to the GeoMatchConstraint object. Valid codes are listed in [GeoMatchConstraint:Value \(p. 923\)](#).

To create and configure an GeoMatchSet, perform the following steps:

1. Submit a [CreateGeoMatchSet \(p. 270\)](#) request.
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the `ChangeToken` parameter of an [UpdateGeoMatchSet \(p. 463\)](#) request.
3. Submit an `UpdateGeoMatchSet` request to specify the country that you want AWS WAF to watch for.

When you update an GeoMatchSet, you specify the country that you want to add and/or the country that you want to delete. If you want to change a country, you delete the existing country and add the new one.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "GeoMatchSetId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "GeoMatchConstraint": {  
                "Type": "string",  
                "Value": "string"  
            }  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 463\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

[GeoMatchSetId \(p. 463\)](#)

The `GeoMatchSetId` of the [GeoMatchSet \(p. 925\)](#) that you want to update. `GeoMatchSetId` is returned by [CreateGeoMatchSet \(p. 270\)](#) and by [ListGeoMatchSets \(p. 406\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

[Updates \(p. 463\)](#)

An array of `GeoMatchSetUpdate` objects that you want to insert into or delete from an [GeoMatchSet \(p. 925\)](#). For more information, see the applicable data types:

- [GeoMatchSetUpdate \(p. 928\)](#): Contains `Action` and `GeoMatchConstraint`
- [GeoMatchConstraint \(p. 923\)](#): Contains `Type` and `Value`

You can have only one `Type` and `Value` per `GeoMatchConstraint`. To add multiple countries, include multiple `GeoMatchSetUpdate` objects in your request.

Type: Array of [GeoMatchSetUpdate \(p. 928\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{  
  "ChangeToken": "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.

[ChangeToken \(p. 464\)](#)

The `ChangeToken` that you used to submit the `UpdateGeoMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

UpdateIPSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [IPSetDescriptor \(p. 934\)](#) objects in an [IPSet](#). For each [IPSetDescriptor](#) object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change an [IPSetDescriptor](#) object, you delete the existing object and add a new one.
- The IP address version, [IPv4](#) or [IPv6](#).
- The IP address in CIDR notation, for example, `192.0.2.0/24` (for the range of IP addresses from `192.0.2.0` to `192.0.2.255`) or `192.0.2.44/32` (for the individual IP address `192.0.2.44`).

AWS WAF supports IPv4 address ranges: /8 and any range between /16 through /32. AWS WAF supports IPv6 address ranges: /24, /32, /48, /56, /64, and /128. For more information about CIDR notation, see the Wikipedia entry [Classless Inter-Domain Routing](#).

IPv6 addresses can be represented using any of the following formats:

- `1111:0000:0000:0000:0000:0000:0111/128`
- `1111:0:0:0:0:0111/128`
- `1111::0111/128`
- `1111::111/128`

You use an [IPSet](#) to specify which web requests you want to allow or block based on the IP addresses that the requests originated from. For example, if you're receiving a lot of requests from one or a small number of IP addresses and you want to block the requests, you can create an [IPSet](#) that specifies those IP addresses, and then configure AWS WAF to block the requests.

To create and configure an [IPSet](#), perform the following steps:

1. Submit a [CreateIPSet \(p. 274\)](#) request.
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the `ChangeToken` parameter of an [UpdateIPSet \(p. 467\)](#) request.
3. Submit an [UpdateIPSet](#) request to specify the IP addresses that you want AWS WAF to watch for.

When you update an [IPSet](#), you specify the IP addresses that you want to add and the IP addresses that you want to delete. If you want to change an IP address, delete the existing IP address and add the new one.

You can update a maximum of 1,000 addresses in a single request.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{
```

```
"ChangeToken": "string",
"IPSetId": "string",
"Updates": [
    {
        "Action": "string",
        "IPSetDescriptor": {
            "Type": "string",
            "Value": "string"
        }
    }
]
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 467\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\s.*

Required: Yes

[IPSetId \(p. 467\)](#)

The `IPSetId` of the [IPSet \(p. 932\)](#) that you want to update. `IPSetId` is returned by [CreateIPSet \(p. 274\)](#) and by [ListIPSets \(p. 409\)](#).

Type: String

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

Pattern: .*\s.*

Required: Yes

[Updates \(p. 467\)](#)

An array of `IPSetUpdate` objects that you want to insert into or delete from an [IPSet \(p. 932\)](#). For more information, see the applicable data types:

- [IPSetUpdate \(p. 937\)](#): Contains `Action` and `IPSetDescriptor`
- [IPSetDescriptor \(p. 934\)](#): Contains `Type` and `Value`

You can specify a maximum of 1,000 addresses in a single request, for example, in a single request you can insert 999 addresses and delete 1 address, but you can't insert 999 addresses and delete 2 addresses.

Type: Array of [IPSetUpdate \(p. 937\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 469\)](#)

The `ChangeToken` that you used to submit the `UpdateIPSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a `Rule` from a `WebACL`, but the `Rule` isn't in the specified `WebACL`.
- You tried to remove an IP address from an `IPSet`, but the IP address isn't in the specified `IPSet`.
- You tried to remove a `ByteMatchTuple` from a `ByteMatchSet`, but the `ByteMatchTuple` isn't in the specified `WebACL`.
- You tried to add a `Rule` to a `WebACL`, but the `Rule` already exists in the specified `WebACL`.
- You tried to add a `ByteMatchTuple` to a `ByteMatchSet`, but the `ByteMatchTuple` already exists in the specified `WebACL`.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.

- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

UpdateRateBasedRule

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [Predicate \(p. 940\)](#) objects in a rule and updates the `RateLimit` in the rule.

Each `Predicate` object identifies a predicate, such as a [ByteMatchSet \(p. 912\)](#) or an [IPSet \(p. 932\)](#), that specifies the web requests that you want to block or count. The `RateLimit` specifies the number of requests every five minutes that triggers the rule.

If you add more than one predicate to a `RateBasedRule`, a request must match all the predicates and exceed the `RateLimit` to be counted or blocked. For example, suppose you add the following to a `RateBasedRule`:

- An `IPSet` that matches the IP address `192.0.2.44/32`
- A `ByteMatchSet` that matches `BadBot` in the `User-Agent` header

Further, you specify a `RateLimit` of 1,000.

You then add the `RateBasedRule` to a `WebACL` and specify that you want to block requests that satisfy the rule. For a request to be blocked, it must come from the IP address `192.0.2.44` and the `User-Agent` header in the request must contain the value `BadBot`. Further, requests that match these two conditions must be received at a rate of more than 1,000 every five minutes. If the rate drops below this limit, AWS WAF no longer blocks the requests.

As a second example, suppose you want to limit requests to a particular page on your site. To do this, you could add the following to a `RateBasedRule`:

- A `ByteMatchSet` with `FieldToMatch` of `URI`
- A `PositionalConstraint` of `STARTS_WITH`
- A `TargetString` of `login`

Further, you specify a `RateLimit` of 1,000.

By adding this `RateBasedRule` to a `WebACL`, you could limit requests to your login page without affecting the rest of your site.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RateLimit": number,  
    "RuleId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "Predicate": {  
                "DataId": "string",  
                "Negated": boolean,  
                "Type": "string"  
            }  
        }  
    ]  
}
```

```
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 472\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\\$.*

Required: Yes

[RateLimit \(p. 472\)](#)

The maximum number of requests, which have an identical value in the field specified by the RateKey, allowed in a five-minute period. If the number of requests exceeds the RateLimit and the other predicates specified in the rule are also met, AWS WAF triggers the action that is specified for this rule.

Type: Long

Valid Range: Minimum value of 100. Maximum value of 2000000000.

Required: Yes

[RuleId \(p. 472\)](#)

The RuleId of the RateBasedRule that you want to update. RuleId is returned by [CreateRateBasedRule](#) and by [ListRateBasedRules \(p. 415\)](#).

Type: String

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

Pattern: .*\\$.*

Required: Yes

[Updates \(p. 472\)](#)

An array of RuleUpdate objects that you want to insert into or delete from a RateBasedRule (p. 942).

Type: Array of [RuleUpdate \(p. 962\)](#) objects

Required: Yes

Response Syntax

```
{  
  "ChangeToken": "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.

ChangeToken (p. 473)

The `ChangeToken` that you used to submit the `UpdateRateBasedRule` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#) (p. 362).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1085).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a `Rule` from a `WebACL`, but the `Rule` isn't in the specified `WebACL`.
- You tried to remove an IP address from an `IPSet`, but the IP address isn't in the specified `IPSet`.
- You tried to remove a `ByteMatchTuple` from a `ByteMatchSet`, but the `ByteMatchTuple` isn't in the specified `WebACL`.
- You tried to add a `Rule` to a `WebACL`, but the `Rule` already exists in the specified `WebACL`.
- You tried to add a `ByteMatchTuple` to a `ByteMatchSet`, but the `ByteMatchTuple` already exists in the specified `WebACL`.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.

- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

UpdateRegexMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [RegexMatchTuple \(p. 948\)](#) objects (filters) in a [RegexMatchSet \(p. 944\)](#). For each `RegexMatchSetUpdate` object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change a `RegexMatchSetUpdate` object, you delete the existing object and add a new one.
- The part of a web request that you want AWS WAF to inspectupdate, such as a query string or the value of the `User-Agent` header.
- The identifier of the pattern (a regular expression) that you want AWS WAF to look for. For more information, see [RegexPatternSet \(p. 951\)](#).
- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

For example, you can create a `RegexPatternSet` that matches any requests with `User-Agent` headers that contain the string `B[a@]dB[o0]t`. You can then configure AWS WAF to reject those requests.

To create and configure a `RegexMatchSet`, perform the following steps:

1. Create a `RegexMatchSet`. For more information, see [CreateRegexMatchSet \(p. 282\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the `ChangeToken` parameter of an `UpdateRegexMatchSet` request.
3. Submit an `UpdateRegexMatchSet` request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the identifier of the `RegexPatternSet` that contain the regular expression patters you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RegexMatchSetId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "RegexMatchTuple": {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "RegexPatternSetId": "string",  
                "TextTransformation": "string"  
            }  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 477\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[RegexMatchSetId \(p. 477\)](#)

The `RegexMatchSetId` of the [RegexMatchSet \(p. 944\)](#) that you want to update. `RegexMatchSetId` is returned by [CreateRegexMatchSet \(p. 282\)](#) and by [ListRegexMatchSets \(p. 418\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[Updates \(p. 477\)](#)

An array of `RegexMatchSetUpdate` objects that you want to insert into or delete from a [RegexMatchSet \(p. 944\)](#). For more information, see [RegexMatchTuple \(p. 948\)](#).

Type: Array of [RegexMatchSetUpdate \(p. 947\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 478\)](#)

The `ChangeToken` that you used to submit the `UpdateRegexMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: .*\\$.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFNotAllowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFFailedDependencyException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

UpdateRegexPatternSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes RegexPatternString objects in a [RegexPatternSet \(p. 951\)](#). For each RegexPatternString object, you specify the following values:

- Whether to insert or delete the RegexPatternString.
- The regular expression pattern that you want to insert or delete. For more information, see [RegexPatternSet \(p. 951\)](#).

For example, you can create a RegexPatternString such as B[a@]dB[o0]t. AWS WAF will match this RegexPatternString to:

- BadBot
- BadB0t
- B@dBot
- B@dB0t

To create and configure a RegexPatternSet, perform the following steps:

1. Create a RegexPatternSet. For more information, see [CreateRegexPatternSet \(p. 285\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of an UpdateRegexPatternSet request.
3. Submit an UpdateRegexPatternSet request to specify the regular expression pattern that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RegexPatternSetId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "RegexPatternString": "string"  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 481\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: `.*\$.*`

Required: Yes

[RegexPatternSetId \(p. 481\)](#)

The `RegexPatternSetId` of the [RegexPatternSet \(p. 951\)](#) that you want to update. `RegexPatternSetId` is returned by [CreateRegexPatternSet \(p. 285\)](#) and by [ListRegexPatternSets \(p. 421\)](#).

Type: String

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

Pattern: `.*\$.*`

Required: Yes

[Updates \(p. 481\)](#)

An array of `RegexPatternSetUpdate` objects that you want to insert into or delete from a [RegexPatternSet \(p. 951\)](#).

Type: Array of [RegexPatternSetUpdate \(p. 954\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 482\)](#)

The `ChangeToken` that you used to submit the `UpdateRegexPatternSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFFInvalidRegexPatternException

The regular expression (regex) you specified in RegexPatternString is invalid.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

UpdateRule

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [Predicate \(p. 940\)](#) objects in a Rule. Each Predicate object identifies a predicate, such as a [ByteMatchSet \(p. 912\)](#) or an [IPSet \(p. 932\)](#), that specifies the web requests that you want to allow, block, or count. If you add more than one predicate to a Rule, a request must match all of the specifications to be allowed, blocked, or counted. For example, suppose that you add the following to a Rule:

- A ByteMatchSet that matches the value BadBot in the User-Agent header
- An IPSet that matches the IP address 192.0.2.44

You then add the Rule to a WebACL and specify that you want to block requests that satisfy the Rule. For a request to be blocked, the User-Agent header in the request must contain the value BadBot *and* the request must originate from the IP address 192.0.2.44.

To create and configure a Rule, perform the following steps:

1. Create and update the predicates that you want to include in the Rule.
2. Create the Rule. See [CreateRule \(p. 288\)](#).
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateRule \(p. 485\)](#) request.
4. Submit an [UpdateRule](#) request to add predicates to the Rule.
5. Create and update a WebACL that contains the Rule. See [CreateWebACL \(p. 304\)](#).

If you want to replace one ByteMatchSet or IPSet with another, you delete the existing one and add the new one.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RuleId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "Predicate": {  
                "DataId": "string",  
                "Negated": boolean,  
                "Type": "string"  
            }  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 485\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[RuleId \(p. 485\)](#)

The `RuleId` of the `Rule` that you want to update. `RuleId` is returned by `CreateRule` and by [ListRules \(p. 427\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[Updates \(p. 485\)](#)

An array of `RuleUpdate` objects that you want to insert into or delete from a [Rule \(p. 955\)](#). For more information, see the applicable data types:

- [RuleUpdate \(p. 962\)](#): Contains `Action` and `Predicate`
- [Predicate \(p. 940\)](#): Contains `DataId`, `Negated`, and `Type`
- [FieldToMatch \(p. 921\)](#): Contains `Data` and `Type`

Type: Array of [RuleUpdate \(p. 962\)](#) objects

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 486\)](#)

The `ChangeToken` that you used to submit the `UpdateRule` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: .*\s.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceeded

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

UpdateRuleGroup

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [ActivatedRule](#) (p. 909) objects in a RuleGroup.

You can only insert **REGULAR** rules into a rule group.

You can have a maximum of ten rules per rule group.

To create and configure a RuleGroup, perform the following steps:

1. Create and update the Rules that you want to include in the RuleGroup. See [CreateRule](#) (p. 288).
2. Use `GetChangeToken` to get the change token that you provide in the `ChangeToken` parameter of an [UpdateRuleGroup](#) (p. 489) request.
3. Submit an `UpdateRuleGroup` request to add Rules to the RuleGroup.
4. Create and update a WebACL that contains the RuleGroup. See [CreateWebACL](#) (p. 304).

If you want to replace one Rule with another, you delete the existing one and add the new one.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RuleGroupId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "ActivatedRule": {  
                "Action": {  
                    "Type": "string"  
                },  
                "ExcludedRules": [  
                    {  
                        "RuleId": "string"  
                    }  
                ],  
                "OverrideAction": {  
                    "Type": "string"  
                },  
                "Priority": number,  
                "RuleId": "string",  
                "Type": "string"  
            }  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 489\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

[RuleGroupId \(p. 489\)](#)

The `RuleGroupId` of the [RuleGroup \(p. 957\)](#) that you want to update. `RuleGroupId` is returned by [CreateRuleGroup \(p. 292\)](#) and by [ListRuleGroups \(p. 424\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

[Updates \(p. 489\)](#)

An array of `RuleGroupUpdate` objects that you want to insert into or delete from a [RuleGroup \(p. 957\)](#).

You can only insert `REGULAR` rules into a rule group.

`ActivatedRule|OverrideAction` applies only when updating or adding a `RuleGroup` to a WebACL. In this case you do not use `ActivatedRule|Action`. For all other update requests, `ActivatedRule|Action` is used instead of `ActivatedRule|OverrideAction`.

Type: Array of [RuleGroupUpdate \(p. 960\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 490\)](#)

The ChangeToken that you used to submit the UpdateRuleGroup request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFLInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFLInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

UpdateSizeConstraintSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [SizeConstraint \(p. 965\)](#) objects (filters) in a [SizeConstraintSet \(p. 968\)](#). For each `SizeConstraint` object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change a `SizeConstraintSetUpdate` object, you delete the existing object and add a new one.
- The part of a web request that you want AWS WAF to evaluate, such as the length of a query string or the length of the `User-Agent` header.
- Whether to perform any transformations on the request, such as converting it to lowercase, before checking its length. Note that transformations of the request body are not supported because the AWS resource forwards only the first 8192 bytes of your request to AWS WAF.

You can only specify a single type of `TextTransformation`.

- A `ComparisonOperator` used for evaluating the selected part of the request against the specified `Size`, such as equals, greater than, less than, and so on.
- The `length`, in bytes, that you want AWS WAF to watch for in selected part of the request. The `length` is computed after applying the transformation.

For example, you can add a `SizeConstraintSetUpdate` object that matches web requests in which the length of the `User-Agent` header is greater than 100 bytes. You can then configure AWS WAF to block those requests.

To create and configure a `SizeConstraintSet`, perform the following steps:

1. Create a `SizeConstraintSet`. For more information, see [CreateSizeConstraintSet \(p. 296\)](#).
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the `ChangeToken` parameter of an `UpdateSizeConstraintSet` request.
3. Submit an `UpdateSizeConstraintSet` request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "SizeConstraintSetId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "SizeConstraint": {  
                "ComparisonOperator": "string",  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "TextTransformation": "string"  
            }  
        }  
    ]  
}
```

```
        "Type": "string"
    },
    "Size": number,
    "TextTransformation": "string"
}
]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 493\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\\$.*

Required: Yes

[SizeConstraintSetId \(p. 493\)](#)

The `SizeConstraintSetId` of the [SizeConstraintSet \(p. 968\)](#) that you want to update. `SizeConstraintSetId` is returned by [CreateSizeConstraintSet \(p. 296\)](#) and by [ListSizeConstraintSets \(p. 430\)](#).

Type: String

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

Pattern: .*\\$.*

Required: Yes

[Updates \(p. 493\)](#)

An array of `SizeConstraintSetUpdate` objects that you want to insert into or delete from a [SizeConstraintSet \(p. 968\)](#). For more information, see the applicable data types:

- [SizeConstraintSetUpdate \(p. 971\)](#): Contains `Action` and `SizeConstraint`
- [SizeConstraint \(p. 965\)](#): Contains `FieldToMatch`, `TextTransformation`, `ComparisonOperator`, and `Size`
- [FieldToMatch \(p. 921\)](#): Contains `Data` and `Type`

Type: Array of [SizeConstraintSetUpdate \(p. 971\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{
```

```
    "ChangeToken": "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.

ChangeToken (p. 494)

The `ChangeToken` that you used to submit the `UpdateSizeConstraintSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#) (p. 362).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1085).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a `Rule` from a `WebACL`, but the `Rule` isn't in the specified `WebACL`.
- You tried to remove an IP address from an `IPSet`, but the IP address isn't in the specified `IPSet`.
- You tried to remove a `ByteMatchTuple` from a `ByteMatchSet`, but the `ByteMatchTuple` isn't in the specified `WebACL`.
- You tried to add a `Rule` to a `WebACL`, but the `Rule` already exists in the specified `WebACL`.
- You tried to add a `ByteMatchTuple` to a `ByteMatchSet`, but the `ByteMatchTuple` already exists in the specified `WebACL`.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.

- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a `Rule` to or delete a `Rule` from a `WebACL` that doesn't exist.
- You tried to add a `ByteMatchSet` to or delete a `ByteMatchSet` from a `Rule` that doesn't exist.
- You tried to add an IP address to or delete an IP address from an `IPSet` that doesn't exist.
- You tried to add a `ByteMatchTuple` to or delete a `ByteMatchTuple` from a `ByteMatchSet` that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

UpdateSqlInjectionMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [SqlInjectionMatchTuple \(p. 976\)](#) objects (filters) in a [SqlInjectionMatchSet \(p. 972\)](#). For each `SqlInjectionMatchTuple` object, you specify the following values:

- **Action**: Whether to insert the object into or delete the object from the array. To change a `SqlInjectionMatchTuple`, you delete the existing object and add a new one.
- **FieldToMatch**: The part of web requests that you want AWS WAF to inspect and, if you want AWS WAF to inspect a header or custom query parameter, the name of the header or parameter.
- **TextTransformation**: Which text transformation, if any, to perform on the web request before inspecting the request for snippets of malicious SQL code.

You can only specify a single type of `TextTransformation`.

You use `SqlInjectionMatchSet` objects to specify which Amazon CloudFront requests that you want to allow, block, or count. For example, if you're receiving requests that contain snippets of SQL code in the query string and you want to block the requests, you can create a `SqlInjectionMatchSet` with the applicable settings, and then configure AWS WAF to block the requests.

To create and configure a `SqlInjectionMatchSet`, perform the following steps:

1. Submit a [CreateSqlInjectionMatchSet \(p. 300\)](#) request.
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the `ChangeToken` parameter of an [UpdateIPSet \(p. 467\)](#) request.
3. Submit an `UpdateSqlInjectionMatchSet` request to specify the parts of web requests that you want AWS WAF to inspect for snippets of SQL code.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "SqlInjectionMatchSetId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "SqlInjectionMatchTuple": {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "TextTransformation": "string"  
            }  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 498\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\s.*

Required: Yes

[SqlInjectionMatchSetId \(p. 498\)](#)

The `SqlInjectionMatchSetId` of the `SqlInjectionMatchSet` that you want to update. `SqlInjectionMatchSetId` is returned by [CreateSqlInjectionMatchSet \(p. 300\)](#) and by [ListSqlInjectionMatchSets \(p. 433\)](#).

Type: String

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

Pattern: .*\s.*

Required: Yes

[Updates \(p. 498\)](#)

An array of `SqlInjectionMatchSetUpdate` objects that you want to insert into or delete from a [SqlInjectionMatchSet \(p. 972\)](#). For more information, see the applicable data types:

- [SqlInjectionMatchSetUpdate \(p. 975\)](#): Contains `Action` and `SqlInjectionMatchTuple`
- [SqlInjectionMatchTuple \(p. 976\)](#): Contains `FieldToMatch` and `TextTransformation`
- [FieldToMatch \(p. 921\)](#): Contains `Data` and `Type`

Type: Array of [SqlInjectionMatchSetUpdate \(p. 975\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 499\)](#)

The `ChangeToken` that you used to submit the `UpdateSqlInjectionMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a `Rule` from a `WebACL`, but the `Rule` isn't in the specified `WebACL`.
- You tried to remove an IP address from an `IPSet`, but the IP address isn't in the specified `IPSet`.
- You tried to remove a `ByteMatchTuple` from a `ByteMatchSet`, but the `ByteMatchTuple` isn't in the specified `WebACL`.
- You tried to add a `Rule` to a `WebACL`, but the `Rule` already exists in the specified `WebACL`.
- You tried to add a `ByteMatchTuple` to a `ByteMatchSet`, but the `ByteMatchTuple` already exists in the specified `WebACL`.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.

- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a `Rule` to or delete a `Rule` from a `WebACL` that doesn't exist.
- You tried to add a `ByteMatchSet` to or delete a `ByteMatchSet` from a `Rule` that doesn't exist.
- You tried to add an IP address to or delete an IP address from an `IPSet` that doesn't exist.
- You tried to add a `ByteMatchTuple` to or delete a `ByteMatchTuple` from a `ByteMatchSet` that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

UpdateWebACL

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [ActivatedRule \(p. 909\)](#) objects in a WebACL. Each Rule identifies web requests that you want to allow, block, or count. When you update a WebACL, you specify the following values:

- A default action for the WebACL, either ALLOW or BLOCK. AWS WAF performs the default action if a request doesn't match the criteria in any of the Rules in a WebACL.
- The Rules that you want to add or delete. If you want to replace one Rule with another, you delete the existing Rule and add the new one.
- For each Rule, whether you want AWS WAF to allow requests, block requests, or count requests that match the conditions in the Rule.
- The order in which you want AWS WAF to evaluate the Rules in a WebACL. If you add more than one Rule to a WebACL, AWS WAF evaluates each request against the Rules in order based on the value of Priority. (The Rule that has the lowest value for Priority is evaluated first.) When a web request matches all the predicates (such as ByteMatchSets and IPSets) in a Rule, AWS WAF immediately takes the corresponding action, allow or block, and doesn't evaluate the request against the remaining Rules in the WebACL, if any.

To create and configure a WebACL, perform the following steps:

1. Create and update the predicates that you want to include in Rules. For more information, see [CreateByteMatchSet \(p. 266\)](#), [UpdateByteMatchSet \(p. 459\)](#), [CreateIPSet \(p. 274\)](#), [UpdateIPSet \(p. 467\)](#), [CreateSqlInjectionMatchSet \(p. 300\)](#), and [UpdateSqlInjectionMatchSet \(p. 498\)](#).
2. Create and update the Rules that you want to include in the WebACL. For more information, see [CreateRule \(p. 288\)](#) and [UpdateRule \(p. 485\)](#).
3. Create a WebACL. See [CreateWebACL \(p. 304\)](#).
4. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateWebACL \(p. 502\)](#) request.
5. Submit an [UpdateWebACL](#) request to specify the Rules that you want to include in the WebACL, to specify the default action, and to associate the WebACL with an Amazon CloudFront distribution.

The ActivatedRule can be a rule group. If you specify a rule group as your ActivatedRule, you can exclude specific rules from that rule group.

If you already have a rule group associated with a web ACL and want to submit an [UpdateWebACL](#) request to exclude certain rules from that rule group, you must first remove the rule group from the web ACL, then re-insert it again, specifying the excluded rules. For details, see [ActivatedRule:ExcludedRules \(p. 909\)](#).

Be aware that if you try to add a RATE_BASED rule to a web ACL without setting the rule type when first creating the rule, the [UpdateWebACL \(p. 502\)](#) request will fail because the request tries to add a REGULAR rule (the default rule type) with the specified ID, which does not exist.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "DefaultAction": {  
        "Type": "string"  
    },  
    "Updates": [  
        {  
            "Action": "string",  
            "ActivatedRule": {  
                "Action": {  
                    "Type": "string"  
                },  
                "ExcludedRules": [  
                    {  
                        "RuleId": "string"  
                    }  
                ],  
                "OverrideAction": {  
                    "Type": "string"  
                },  
                "Priority": number,  
                "RuleId": "string",  
                "Type": "string"  
            }  
        }  
    ],  
    "WebACLId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 503\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[DefaultAction \(p. 503\)](#)

Type: [WafAction \(p. 983\)](#) object

Required: No

[Updates \(p. 503\)](#)

An array of updates to make to the [WebACL \(p. 985\)](#).

An array of [WebACLUpdate](#) objects that you want to insert into or delete from a [WebACL \(p. 985\)](#). For more information, see the applicable data types:

- [WebACLUpdate \(p. 988\)](#): Contains Action and ActivatedRule
- [ActivatedRule \(p. 909\)](#): Contains Action, OverrideAction, Priority, RuleId, and Type. ActivatedRule|OverrideAction applies only when updating or adding a RuleGroup to a WebACL. In this case, you do not use ActivatedRule|Action. For all other update requests, ActivatedRule|Action is used instead of ActivatedRule|OverrideAction.
- [WafAction \(p. 983\)](#): Contains Type

Type: Array of [WebACLUpdate \(p. 988\)](#) objects

Required: No

[WebACLId \(p. 503\)](#)

The WebACLId of the [WebACL \(p. 985\)](#) that you want to update. WebACLId is returned by [CreateWebACL \(p. 304\)](#) and by [ListWebACLs \(p. 442\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 504\)](#)

The ChangeToken that you used to submit the UpdateWebACL request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

[WAFFInternalErrorException](#)

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFFailedDependencyException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFFailedDependencyException

The specified subscription does not exist.

HTTP Status Code: 400

See Also

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

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

UpdateXssMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [XssMatchTuple \(p. 993\)](#) objects (filters) in an [XssMatchSet \(p. 989\)](#). For each XssMatchTuple object, you specify the following values:

- **Action:** Whether to insert the object into or delete the object from the array. To change an XssMatchTuple, you delete the existing object and add a new one.
- **FieldToMatch:** The part of web requests that you want AWS WAF to inspect and, if you want AWS WAF to inspect a header or custom query parameter, the name of the header or parameter.
- **TextTransformation:** Which text transformation, if any, to perform on the web request before inspecting the request for cross-site scripting attacks.

You can only specify a single type of TextTransformation.

You use XssMatchSet objects to specify which Amazon CloudFront requests that you want to allow, block, or count. For example, if you're receiving requests that contain cross-site scripting attacks in the request body and you want to block the requests, you can create an XssMatchSet with the applicable settings, and then configure AWS WAF to block the requests.

To create and configure an XssMatchSet, perform the following steps:

1. Submit a [CreateXssMatchSet \(p. 313\)](#) request.
2. Use [GetChangeToken \(p. 360\)](#) to get the change token that you provide in the ChangeToken parameter of an [UpdateIPSet \(p. 467\)](#) request.
3. Submit an [UpdateXssMatchSet](#) request to specify the parts of web requests that you want AWS WAF to inspect for cross-site scripting attacks.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "XssMatchTuple": {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "TextTransformation": "string"  
            }  
        }  
    ],  
    "XssMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 507)

The value returned by the most recent call to [GetChangeToken \(p. 360\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Updates (p. 507)

An array of `XssMatchSetUpdate` objects that you want to insert into or delete from an [XssMatchSet \(p. 989\)](#). For more information, see the applicable data types:

- [XssMatchSetUpdate \(p. 992\)](#): Contains `Action` and `XssMatchTuple`
- [XssMatchTuple \(p. 993\)](#): Contains `FieldToMatch` and `TextTransformation`
- [FieldToMatch \(p. 921\)](#): Contains `Data` and `Type`

Type: Array of [XssMatchSetUpdate \(p. 992\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

XssMatchSetId (p. 507)

The `XssMatchSetId` of the `XssMatchSet` that you want to update. `XssMatchSetId` is returned by [CreateXssMatchSet \(p. 313\)](#) and by [ListXssMatchSets \(p. 445\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 508\)](#)

The `ChangeToken` that you used to submit the `UpdateXssMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 362\)](#).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a `Rule` from a `WebACL`, but the `Rule` isn't in the specified `WebACL`.
- You tried to remove an IP address from an `IPSet`, but the IP address isn't in the specified `IPSet`.
- You tried to remove a `ByteMatchTuple` from a `ByteMatchSet`, but the `ByteMatchTuple` isn't in the specified `WebACL`.
- You tried to add a `Rule` to a `WebACL`, but the `Rule` already exists in the specified `WebACL`.
- You tried to add a `ByteMatchTuple` to a `ByteMatchSet`, but the `ByteMatchTuple` already exists in the specified `WebACL`.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

AWS WAF Classic Regional

The following actions are supported by AWS WAF Classic Regional:

- [AssociateWebACL \(p. 513\)](#)
- [CreateByteMatchSet \(p. 516\)](#)

- [CreateGeoMatchSet \(p. 520\)](#)
- [CreateIPSet \(p. 524\)](#)
- [CreateRateBasedRule \(p. 527\)](#)
- [CreateRegexMatchSet \(p. 532\)](#)
- [CreateRegexPatternSet \(p. 535\)](#)
- [CreateRule \(p. 538\)](#)
- [CreateRuleGroup \(p. 542\)](#)
- [CreateSizeConstraintSet \(p. 546\)](#)
- [CreateSqlInjectionMatchSet \(p. 550\)](#)
- [CreateWebACL \(p. 554\)](#)
- [CreateWebACLMigrationStack \(p. 559\)](#)
- [CreateXssMatchSet \(p. 563\)](#)
- [DeleteByteMatchSet \(p. 567\)](#)
- [DeleteGeoMatchSet \(p. 570\)](#)
- [DeleteIPSet \(p. 573\)](#)
- [DeleteLoggingConfiguration \(p. 576\)](#)
- [DeletePermissionPolicy \(p. 578\)](#)
- [DeleteRateBasedRule \(p. 580\)](#)
- [DeleteRegexMatchSet \(p. 583\)](#)
- [DeleteRegexPatternSet \(p. 586\)](#)
- [DeleteRule \(p. 589\)](#)
- [DeleteRuleGroup \(p. 592\)](#)
- [DeleteSizeConstraintSet \(p. 595\)](#)
- [DeleteSqlInjectionMatchSet \(p. 598\)](#)
- [DeleteWebACL \(p. 601\)](#)
- [DeleteXssMatchSet \(p. 604\)](#)
- [DisassociateWebACL \(p. 607\)](#)
- [GetByteMatchSet \(p. 609\)](#)
- [GetChangeToken \(p. 612\)](#)
- [GetChangeTokenStatus \(p. 614\)](#)
- [GetGeoMatchSet \(p. 616\)](#)
- [GetIPSet \(p. 618\)](#)
- [GetLoggingConfiguration \(p. 620\)](#)
- [GetPermissionPolicy \(p. 622\)](#)
- [GetRateBasedRule \(p. 624\)](#)
- [GetRateBasedRuleManagedKeys \(p. 626\)](#)
- [GetRegexMatchSet \(p. 629\)](#)
- [GetRegexPatternSet \(p. 631\)](#)
- [GetRule \(p. 633\)](#)
- [GetRuleGroup \(p. 635\)](#)
- [GetSampledRequests \(p. 637\)](#)
- [GetSizeConstraintSet \(p. 641\)](#)
- [GetSqlInjectionMatchSet \(p. 644\)](#)
- [GetWebACL \(p. 647\)](#)
- [GetWebACLForResource \(p. 650\)](#)
- [GetXssMatchSet \(p. 653\)](#)

- [ListActivatedRulesInRuleGroup \(p. 655\)](#)
- [ListByteMatchSets \(p. 658\)](#)
- [ListGeoMatchSets \(p. 661\)](#)
- [ListIPSets \(p. 664\)](#)
- [ListLoggingConfigurations \(p. 667\)](#)
- [ListRateBasedRules \(p. 670\)](#)
- [ListRegexMatchSets \(p. 673\)](#)
- [ListRegexPatternSets \(p. 676\)](#)
- [ListResourcesForWebACL \(p. 679\)](#)
- [ListRuleGroups \(p. 682\)](#)
- [ListRules \(p. 685\)](#)
- [ListSizeConstraintSets \(p. 688\)](#)
- [ListSqlInjectionMatchSets \(p. 691\)](#)
- [ListSubscribedRuleGroups \(p. 694\)](#)
- [ListTagsForResource \(p. 697\)](#)
- [ListWebACLS \(p. 700\)](#)
- [ListXssMatchSets \(p. 703\)](#)
- [PutLoggingConfiguration \(p. 706\)](#)
- [PutPermissionPolicy \(p. 709\)](#)
- [TagResource \(p. 712\)](#)
- [UntagResource \(p. 715\)](#)
- [UpdateByteMatchSet \(p. 717\)](#)
- [UpdateGeoMatchSet \(p. 721\)](#)
- [UpdateIPSet \(p. 725\)](#)
- [UpdateRateBasedRule \(p. 730\)](#)
- [UpdateRegexMatchSet \(p. 735\)](#)
- [UpdateRegexPatternSet \(p. 739\)](#)
- [UpdateRule \(p. 743\)](#)
- [UpdateRuleGroup \(p. 747\)](#)
- [UpdateSizeConstraintSet \(p. 751\)](#)
- [UpdateSqlInjectionMatchSet \(p. 756\)](#)
- [UpdateWebACL \(p. 760\)](#)
- [UpdateXssMatchSet \(p. 765\)](#)

AssociateWebACL

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Associates a web ACL with a resource, either an application load balancer or Amazon API Gateway stage.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ResourceArn \(p. 513\)](#)

The ARN (Amazon Resource Name) of the resource to be protected, either an application load balancer or Amazon API Gateway stage.

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 Amazon API Gateway stage: `arn:aws:apigateway:region::/restapis/api-id/stages/stage-name`

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: Yes

[WebACLId \(p. 513\)](#)

A unique identifier (ID) for the web ACL.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFUnavailableEntityException

The operation failed because the entity referenced is temporarily unavailable. Retry your request.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

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

CreateByteMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a ByteMatchSet. You then use [UpdateByteMatchSet \(p. 717\)](#) to identify the part of a web request that you want AWS WAF to inspect, such as the values of the User-Agent header or the query string. For example, you can create a ByteMatchSet that matches any requests with User-Agent headers that contain the string BadBot. You can then configure AWS WAF to reject those requests.

To create and configure a ByteMatchSet, perform the following steps:

1. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateByteMatchSet request.
2. Submit a CreateByteMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateByteMatchSet request.
4. Submit an [UpdateByteMatchSet \(p. 717\)](#) request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 516\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\\$.*

Required: Yes

Name (p. 516)

A friendly name or description of the [ByteMatchSet \(p. 1000\)](#). You can't change Name after you create a ByteMatchSet.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ByteMatchSet": {  
        "ByteMatchSetId": "string",  
        "ByteMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "PositionalConstraint": "string",  
                "TargetString": blob,  
                "TextTransformation": "string"  
            }  
        ],  
        "Name": "string"  
    },  
    "ChangeToken": "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.

ByteMatchSet (p. 517)

A [ByteMatchSet \(p. 1000\)](#) that contains no ByteMatchTuple objects.

Type: [ByteMatchSet \(p. 1000\)](#) object

ChangeToken (p. 517)

The ChangeToken that you used to submit the CreateByteMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFFinalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

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

CreateGeoMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates an [GeoMatchSet \(p. 1013\)](#), which you use to specify which web requests you want to allow or block based on the country that the requests originate from. For example, if you're receiving a lot of requests from one or more countries and you want to block the requests, you can create an GeoMatchSet that contains those countries and then configure AWS WAF to block the requests.

To create and configure a GeoMatchSet, perform the following steps:

1. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateGeoMatchSet request.
2. Submit a CreateGeoMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateGeoMatchSet \(p. 721\)](#) request.
4. Submit an [UpdateGeoMatchSetSet](#) request to specify the countries that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 520)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\\$.*

Required: Yes

Name (p. 520)

A friendly name or description of the [GeoMatchSet \(p. 1013\)](#). You can't change Name after you create the GeoMatchSet.

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "string",  
    "GeoMatchSet": {  
        "GeoMatchConstraints": [  
            {  
                "Type": "string",  
                "Value": "string"  
            }  
        ],  
        "GeoMatchSetId": "string",  
        "Name": "string"  
    }  
}
```

Response Elements

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

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

ChangeToken (p. 521)

The `ChangeToken` that you used to submit the `CreateGeoMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: .*\S.*

GeoMatchSet (p. 521)

The [GeoMatchSet \(p. 1013\)](#) returned in the `CreateGeoMatchSet` response. The `GeoMatchSet` contains no `GeoMatchConstraints`.

Type: [GeoMatchSet \(p. 1013\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFFinalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFLInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFLInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFLStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)

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

CreateIPSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates an [IPSet \(p. 1020\)](#), which you use to specify which web requests that you want to allow or block based on the IP addresses that the requests originate from. For example, if you're receiving a lot of requests from one or more individual IP addresses or one or more ranges of IP addresses and you want to block the requests, you can create an IPSet that contains those IP addresses and then configure AWS WAF to block the requests.

To create and configure an IPSet, perform the following steps:

1. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateIPSet request.
2. Submit a CreateIPSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateIPSet \(p. 725\)](#) request.
4. Submit an UpdateIPSet request to specify the IP addresses that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 524\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\\$.*

Required: Yes

[Name \(p. 524\)](#)

A friendly name or description of the [IPSet \(p. 1020\)](#). You can't change Name after you create the IPSet.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "string",  
    "IPSet": {  
        "IPSetDescriptors": [  
            {  
                "Type": "string",  
                "Value": "string"  
            }  
        ],  
        "IPSetId": "string",  
        "Name": "string"  
    }  
}
```

Response Elements

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

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

ChangeToken (p. 525)

The `ChangeToken` that you used to submit the `CreateIPSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\S.*`

IPSet (p. 525)

The [IPSet \(p. 1020\)](#) returned in the `CreateIPSet` response.

Type: [IPSet \(p. 1020\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

CreateRateBasedRule

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a [RateBasedRule \(p. 1030\)](#). The RateBasedRule contains a RateLimit, which specifies the maximum number of requests that AWS WAF allows from a specified IP address in a five-minute period. The RateBasedRule also contains the IPSet objects, ByteMatchSet objects, and other predicates that identify the requests that you want to count or block if these requests exceed the RateLimit.

If you add more than one predicate to a RateBasedRule, a request not only must exceed the RateLimit, but it also must match all the conditions to be counted or blocked. For example, suppose you add the following to a RateBasedRule:

- An IPSet that matches the IP address 192.0.2.44/32
- A ByteMatchSet that matches BadBot in the User-Agent header

Further, you specify a RateLimit of 1,000.

You then add the RateBasedRule to a WebACL and specify that you want to block requests that meet the conditions in the rule. For a request to be blocked, it must come from the IP address 192.0.2.44 *and* the User-Agent header in the request must contain the value BadBot. Further, requests that match these two conditions must be received at a rate of more than 1,000 requests every five minutes. If both conditions are met and the rate is exceeded, AWS WAF blocks the requests. If the rate drops below 1,000 for a five-minute period, AWS WAF no longer blocks the requests.

As a second example, suppose you want to limit requests to a particular page on your site. To do this, you could add the following to a RateBasedRule:

- A ByteMatchSet with FieldToMatch of URI
- A PositionalConstraint of STARTS_WITH
- A TargetString of login

Further, you specify a RateLimit of 1,000.

By adding this RateBasedRule to a WebACL, you could limit requests to your login page without affecting the rest of your site.

To create and configure a RateBasedRule, perform the following steps:

1. Create and update the predicates that you want to include in the rule. For more information, see [CreateByteMatchSet \(p. 516\)](#), [CreateIPSet \(p. 524\)](#), and [CreateSqlInjectionMatchSet \(p. 550\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateRule request.
3. Submit a CreateRateBasedRule request.
4. Use [GetChangeToken](#) to get the change token that you provide in the ChangeToken parameter of an [UpdateRule \(p. 743\)](#) request.
5. Submit an [UpdateRateBasedRule](#) request to specify the predicates that you want to include in the rule.

6. Create and update a WebACL that contains the RateBasedRule. For more information, see [CreateWebACL \(p. 554\)](#).

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "MetricName": "string",  
    "Name": "string",  
    "RateKey": "string",  
    "RateLimit": number,  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 528\)](#)

The ChangeToken that you used to submit the CreateRateBasedRule request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[MetricName \(p. 528\)](#)

A friendly name or description for the metrics for this RateBasedRule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RateBasedRule.

Type: String

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

Pattern: .*\S.*

Required: Yes

[Name \(p. 528\)](#)

A friendly name or description of the RateBasedRule (p. 1030). You can't change the name of a RateBasedRule after you create it.

Type: String

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

Pattern: .*\\$.*

Required: Yes

[RateKey \(p. 528\)](#)

The field that AWS WAF uses to determine if requests are likely arriving from a single source and thus subject to rate monitoring. The only valid value for RateKey is IP. IP indicates that requests that arrive from the same IP address are subject to the RateLimit that is specified in the RateBasedRule.

Type: String

Valid Values: IP

Required: Yes

[RateLimit \(p. 528\)](#)

The maximum number of requests, which have an identical value in the field that is specified by RateKey, allowed in a five-minute period. If the number of requests exceeds the RateLimit and the other predicates specified in the rule are also met, AWS WAF triggers the action that is specified for this rule.

Type: Long

Valid Range: Minimum value of 100. Maximum value of 2000000000.

Required: Yes

[Tags \(p. 528\)](#)

Type: Array of [Tag \(p. 1068\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

Response Syntax

```
{  
    "ChangeToken": "string",  
    "Rule": {  
        "MatchPredicates": [  
            {  
                "DataId": "string",  
                "Negated": boolean,  
                "Type": "string"  
            }  
        ],  
        "MetricName": "string",  
        "Name": "string",  
        "RateKey": "string",  
        "RateLimit": number,  
        "RuleId": "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.

ChangeToken (p. 529)

The `ChangeToken` that you used to submit the `CreateRateBasedRule` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\S.*`

Rule (p. 529)

The [RateBasedRule \(p. 1030\)](#) that is returned in the `CreateRateBasedRule` response.

Type: [RateBasedRule \(p. 1030\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFBadRequestException

HTTP Status Code: 400

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.

- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

CreateRegexMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a [RegexMatchSet \(p. 1032\)](#). You then use [UpdateRegexMatchSet \(p. 735\)](#) to identify the part of a web request that you want AWS WAF to inspect, such as the values of the User-Agent header or the query string. For example, you can create a RegexMatchSet that contains a RegexMatchTuple that looks for any requests with User-Agent headers that match a RegexPatternSet with pattern B[a@]dB[oo]t. You can then configure AWS WAF to reject those requests.

To create and configure a RegexMatchSet, perform the following steps:

1. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateRegexMatchSet request.
2. Submit a CreateRegexMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an UpdateRegexMatchSet request.
4. Submit an [UpdateRegexMatchSet \(p. 735\)](#) request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value, using a RegexPatternSet, that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
  "ChangeToken": "string",  
  "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 532)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\\$.*

Required: Yes

Name (p. 532)

A friendly name or description of the [RegexMatchSet \(p. 1032\)](#). You can't change Name after you create a RegexMatchSet.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "string",  
    "RegexMatchSet": {  
        "Name": "string",  
        "RegexMatchSetId": "string",  
        "RegexMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "RegexPatternSetId": "string",  
                "TextTransformation": "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.

ChangeToken (p. 533)

The ChangeToken that you used to submit the CreateRegexMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\S.*`

RegexMatchSet (p. 533)

A [RegexMatchSet \(p. 1032\)](#) that contains no RegexMatchTuple objects.

Type: [RegexMatchSet \(p. 1032\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFLInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFTStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

CreateRegexPatternSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a RegexPatternSet. You then use [UpdateRegexPatternSet \(p. 739\)](#) to specify the regular expression (regex) pattern that you want AWS WAF to search for, such as `B[a@]dB[o0]t`. You can then configure AWS WAF to reject those requests.

To create and configure a RegexPatternSet, perform the following steps:

1. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the `ChangeToken` parameter of a `CreateRegexPatternSet` request.
2. Submit a `CreateRegexPatternSet` request.
3. Use [GetChangeToken](#) to get the change token that you provide in the `ChangeToken` parameter of an [UpdateRegexPatternSet](#) request.
4. Submit an [UpdateRegexPatternSet \(p. 739\)](#) request to specify the string that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 535)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Name (p. 535)

A friendly name or description of the [RegexPatternSet \(p. 1039\)](#). You can't change `Name` after you create a `RegexPatternSet`.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "string",  
    "RegexPatternSet": {  
        "Name": "string",  
        "RegexPatternSetId": "string",  
        "RegexPatternStrings": [ "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.

[ChangeToken](#) (p. 536)

The `ChangeToken` that you used to submit the `CreateRegexPatternSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#) (p. 614).

Type: String

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

Pattern: `.*\S.*`

[RegexPatternSet](#) (p. 536)

A [RegexPatternSet](#) (p. 1039) that contains no objects.

Type: [RegexPatternSet](#) (p. 1039) object

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1085).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFLimitsExceeded

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

CreateRule

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a Rule, which contains the IPSet objects, ByteMatchSet objects, and other predicates that identify the requests that you want to block. If you add more than one predicate to a Rule, a request must match all of the specifications to be allowed or blocked. For example, suppose that you add the following to a Rule:

- An IPSet that matches the IP address 192.0.2.44/32
- A ByteMatchSet that matches BadBot in the User-Agent header

You then add the Rule to a WebACL and specify that you want to blocks requests that satisfy the Rule. For a request to be blocked, it must come from the IP address 192.0.2.44 *and* the User-Agent header in the request must contain the value BadBot.

To create and configure a Rule, perform the following steps:

1. Create and update the predicates that you want to include in the Rule. For more information, see [CreateByteMatchSet \(p. 516\)](#), [CreateIPSet \(p. 524\)](#), and [CreateSqlInjectionMatchSet \(p. 550\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateRule request.
3. Submit a CreateRule request.
4. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateRule \(p. 743\)](#) request.
5. Submit an [UpdateRule](#) request to specify the predicates that you want to include in the Rule.
6. Create and update a WebACL that contains the Rule. For more information, see [CreateWebACL \(p. 554\)](#).

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 538\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

[MetricName \(p. 538\)](#)

A friendly name or description for the metrics for this Rule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the Rule.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

[Name \(p. 538\)](#)

A friendly name or description of the Rule (p. 1043). You can't change the name of a Rule after you create it.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

[Tags \(p. 538\)](#)

Type: Array of Tag (p. 1068) objects

Array Members: Minimum number of 1 item.

Required: No

Response Syntax

```
{  
    "ChangeToken": "string",  
    "Rule": {  
        "MetricName": "string",  
    },  
}
```

```
    "Name": "string",
    "Predicates": [
        {
            "DataId": "string",
            "Negated": boolean,
            "Type": "string"
        }
    ],
    "RuleId": "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.

[ChangeToken \(p. 539\)](#)

The `ChangeToken` that you used to submit the `CreateRule` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\$.*`

[Rule \(p. 539\)](#)

The `Rule` (p. 1043) returned in the `CreateRule` response.

Type: [Rule \(p. 1043\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFBadRequestException

HTTP Status Code: 400

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.

- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

CreateRuleGroup

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a RuleGroup. A rule group is a collection of predefined rules that you add to a web ACL. You use [UpdateRuleGroup \(p. 747\)](#) to add rules to the rule group.

Rule groups are subject to the following limits:

- Three rule groups per account. You can request an increase to this limit by contacting customer support.
- One rule group per web ACL.
- Ten rules per rule group.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 542)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

MetricName (p. 542)

A friendly name or description for the metrics for this RuleGroup. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't

contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RuleGroup.

Type: String

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

Pattern: .*\S.*

Required: Yes

[Name \(p. 542\)](#)

A friendly name or description of the [RuleGroup \(p. 1045\)](#). You can't change Name after you create a RuleGroup.

Type: String

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

Pattern: .*\S.*

Required: Yes

[Tags \(p. 542\)](#)

Type: Array of [Tag \(p. 1068\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

Response Syntax

```
{  
    "ChangeToken": "string",  
    "RuleGroup": {  
        "MetricName": "string",  
        "Name": "string",  
        "RuleGroupId": "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.

[ChangeToken \(p. 543\)](#)

The ChangeToken that you used to submit the CreateRuleGroup request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: .*\S.*

[RuleGroup \(p. 543\)](#)

An empty [RuleGroup \(p. 1045\)](#).

Type: [RuleGroup \(p. 1045\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFBadRequestException

HTTP Status Code: 400

WAFNotAllowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

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

CreateSizeConstraintSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a `SizeConstraintSet`. You then use [UpdateSizeConstraintSet \(p. 751\)](#) to identify the part of a web request that you want AWS WAF to check for length, such as the length of the `User-Agent` header or the length of the query string. For example, you can create a `SizeConstraintSet` that matches any requests that have a query string that is longer than 100 bytes. You can then configure AWS WAF to reject those requests.

To create and configure a `SizeConstraintSet`, perform the following steps:

1. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the `ChangeToken` parameter of a `CreateSizeConstraintSet` request.
2. Submit a `CreateSizeConstraintSet` request.
3. Use `GetChangeToken` to get the change token that you provide in the `ChangeToken` parameter of an `UpdateSizeConstraintSet` request.
4. Submit an [UpdateSizeConstraintSet \(p. 751\)](#) request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 546)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Name (p. 546)

A friendly name or description of the [SizeConstraintSet \(p. 1056\)](#). You can't change Name after you create a SizeConstraintSet.

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "string",  
    "SizeConstraintSet": {  
        "Name": "string",  
        "SizeConstraints": [  
            {  
                "ComparisonOperator": "string",  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "Size": number,  
                "TextTransformation": "string"  
            }  
        ],  
        "SizeConstraintSetId": "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.

ChangeToken (p. 547)

The ChangeToken that you used to submit the CreateSizeConstraintSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: .*\S.*

SizeConstraintSet (p. 547)

A [SizeConstraintSet \(p. 1056\)](#) that contains no SizeConstraint objects.

Type: [SizeConstraintSet \(p. 1056\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFFinalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)

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

CreateSqlInjectionMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a [SqlInjectionMatchSet \(p. 1060\)](#), which you use to allow, block, or count requests that contain snippets of SQL code in a specified part of web requests. AWS WAF searches for character sequences that are likely to be malicious strings.

To create and configure a SqlInjectionMatchSet, perform the following steps:

1. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateSqlInjectionMatchSet request.
2. Submit a CreateSqlInjectionMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateSqlInjectionMatchSet \(p. 756\)](#) request.
4. Submit an [UpdateSqlInjectionMatchSet \(p. 756\)](#) request to specify the parts of web requests in which you want to allow, block, or count malicious SQL code.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 550)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

Name (p. 550)

A friendly name or description for the [SqlInjectionMatchSet \(p. 1060\)](#) that you're creating. You can't change Name after you create the SqlInjectionMatchSet.

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "string",  
    "SqlInjectionMatchSet": {  
        "Name": "string",  
        "SqlInjectionMatchSetId": "string",  
        "SqlInjectionMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "TextTransformation": "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.

ChangeToken (p. 551)

The ChangeToken that you used to submit the CreateSqlInjectionMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: .*\S.*

SqlInjectionMatchSet (p. 551)

A SqlInjectionMatchSet (p. 1060).

Type: [SqlInjectionMatchSet \(p. 1060\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

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

CreateWebACL

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates a WebACL, which contains the Rules that identify the Amazon CloudFront web requests that you want to allow, block, or count. AWS WAF evaluates Rules in order based on the value of Priority for each Rule.

You also specify a default action, either ALLOW or BLOCK. If a web request doesn't match any of the Rules in a WebACL, AWS WAF responds to the request with the default action.

To create and configure a WebACL, perform the following steps:

1. Create and update the ByteMatchSet objects and other predicates that you want to include in Rules. For more information, see [CreateByteMatchSet \(p. 516\)](#), [UpdateByteMatchSet \(p. 717\)](#), [CreateIPSet \(p. 524\)](#), [UpdateIPSet \(p. 725\)](#), [CreateSqlInjectionMatchSet \(p. 550\)](#), and [UpdateSqlInjectionMatchSet \(p. 756\)](#).
2. Create and update the Rules that you want to include in the WebACL. For more information, see [CreateRule \(p. 538\)](#) and [UpdateRule \(p. 743\)](#).
3. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateWebACL request.
4. Submit a CreateWebACL request.
5. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateWebACL \(p. 760\)](#) request.
6. Submit an [UpdateWebACL \(p. 760\)](#) request to specify the Rules that you want to include in the WebACL, to specify the default action, and to associate the WebACL with an Amazon CloudFront distribution.

For more information about how to use the AWS WAF API, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "DefaultAction": {  
        "Type": "string"  
    },  
    "MetricName": "string",  
    "Name": "string",  
    "Tags": [  
        {  
            "Key": "string",  
            "Value": "string"  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 554)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

DefaultAction (p. 554)

The action that you want AWS WAF to take when a request doesn't match the criteria specified in any of the `Rule` objects that are associated with the `WebACL`.

Type: [WafAction \(p. 1071\)](#) object

Required: Yes

MetricName (p. 554)

A friendly name or description for the metrics for this `WebACL`. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change `MetricName` after you create the `WebACL`.

Type: String

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

Pattern: .*\S.*

Required: Yes

Name (p. 554)

A friendly name or description of the [WebACL \(p. 1073\)](#). You can't change `Name` after you create the `WebACL`.

Type: String

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

Pattern: .*\S.*

Required: Yes

Tags (p. 554)

Type: Array of [Tag \(p. 1068\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

Response Syntax

```
{
```

```
"ChangeToken": "string",
"WebACL": {
    "DefaultAction": {
        "Type": "string"
    },
    "MetricName": "string",
    "Name": "string",
    "Rules": [
        {
            "Action": {
                "Type": "string"
            },
            "ExcludedRules": [
                {
                    "RuleId": "string"
                }
            ],
            "OverrideAction": {
                "Type": "string"
            },
            "Priority": number,
            "RuleId": "string",
            "Type": "string"
        }
    ],
    "WebACLArn": "string",
    "WebACLId": "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.

ChangeToken (p. 555)

The ChangeToken that you used to submit the CreateWebACL request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: .*\S.*

WebACL (p. 555)

The [WebACL \(p. 1073\)](#) returned in the CreateWebACL response.

Type: [WebACL \(p. 1073\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFBadRequestException

HTTP Status Code: 400

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

CreateWebACLMigrationStack

Service: AWS WAF Classic Regional

Creates an AWS CloudFormation AWS WAFV2 template for the specified web ACL in the specified Amazon S3 bucket. Then, in CloudFormation, you create a stack from the template, to create the web ACL and its resources in AWS WAFV2. Use this to migrate your AWS WAF Classic web ACL to the latest version of AWS WAF.

This is part of a larger migration procedure for web ACLs from AWS WAF Classic to the latest version of AWS WAF. For the full procedure, including caveats and manual steps to complete the migration and switch over to the new web ACL, see [Migrating your AWS WAF Classic resources to AWS WAF](#) in the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "IgnoreUnsupportedType": boolean,  
    "S3BucketName": "string",  
    "WebACLId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[IgnoreUnsupportedType \(p. 559\)](#)

Indicates whether to exclude entities that can't be migrated or to stop the migration. Set this to true to ignore unsupported entities in the web ACL during the migration. Otherwise, if AWS WAF encounters unsupported entities, it stops the process and throws an exception.

Type: Boolean

Required: Yes

[S3BucketName \(p. 559\)](#)

The name of the Amazon S3 bucket to store the AWS CloudFormation template in. The S3 bucket must be configured as follows for the migration:

- If the bucket is encrypted, the encryption must use Amazon S3 (SSE-S3) keys. The migration doesn't support encryption with AWS Key Management Service (SSE-KMS) keys.
- The bucket name must start with `aws-waf-migration-`. For example, `aws-waf-migration-my-web-acl`.
- The bucket must be in the Region where you are deploying the template. For example, for a web ACL in `us-west-2`, you must use an Amazon S3 bucket in `us-west-2` and you must deploy the template stack to `us-west-2`.
- The bucket policies must permit the migration process to write data. For listings of the bucket policies, see the Examples section.

Type: String

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

Pattern: `^aws-waf-migration-[0-9A-Za-z\.\-_]*`

Required: Yes

WebACLId (p. 559)

The UUID of the WAF Classic web ACL that you want to migrate to WAF v2.

Type: String

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

Pattern: `.*\$.*`

Required: Yes

Response Syntax

```
{  
    "S3ObjectUrl": "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.

S3ObjectUrl (p. 560)

The URL of the template created in Amazon S3.

Type: String

Length Constraints: Minimum length of 1.

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFEntityMigrationException

The operation failed due to a problem with the migration. The failure cause is provided in the exception, in the `MigrationErrorType`:

- `ENTITY_NOT_SUPPORTED` - The web ACL has an unsupported entity but the `IgnoreUnsupportedType` is not set to true.
- `ENTITY_NOT_FOUND` - The web ACL doesn't exist.
- `S3_BUCKET_NO_PERMISSION` - You don't have permission to perform the `PutObject` action to the specified Amazon S3 bucket.
- `S3_BUCKET_NOT_ACCESSIBLE` - The bucket policy doesn't allow AWS WAF to perform the `PutObject` action in the bucket.
- `S3_BUCKET_NOT_FOUND` - The S3 bucket doesn't exist.
- `S3_BUCKET_INVALID_REGION` - The S3 bucket is not in the same Region as the web ACL.
- `S3_INTERNAL_ERROR` - AWS WAF failed to create the template in the S3 bucket for another reason.

In addition, the exception includes specific details about the failure in the `MigrationErrorReason`.

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

Examples

Amazon S3 bucket policy for global Amazon CloudFront applications

This example illustrates one usage of CreateWebACLMigrationStack.

```
{  
    "Version": "2012-10-17",  
    "Statement": [  
        {  
            "Effect": "Allow",  
            "Principal": "*"  
        }  
    ]  
}
```

```
        "Principal": {
            "Service": "apiv2migration.waf.amazonaws.com"
        },
        "Action": "s3:PutObject",
        "Resource": "arn:aws:s3:::<BUCKET_NAME>/AWSWAF/<CUSTOMER_ACCOUNT_ID>/*"
    }
}
```

Amazon S3 bucket policy for Amazon API Gateway API or Application Load Balancer applications

This example illustrates one usage of CreateWebACLMigrationStack.

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Principal": {
                "Service": "apiv2migration.waf-regional.amazonaws.com"
            },
            "Action": "s3:PutObject",
            "Resource": "arn:aws:s3:::<BUCKET_NAME>/AWSWAF/<CUSTOMER_ACCOUNT_ID>/*"
        }
    ]
}
```

See Also

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

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

CreateXssMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Creates an [XssMatchSet \(p. 1077\)](#), which you use to allow, block, or count requests that contain cross-site scripting attacks in the specified part of web requests. AWS WAF searches for character sequences that are likely to be malicious strings.

To create and configure an XssMatchSet, perform the following steps:

1. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a CreateXssMatchSet request.
2. Submit a CreateXssMatchSet request.
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateXssMatchSet \(p. 765\)](#) request.
4. Submit an [UpdateXssMatchSet \(p. 765\)](#) request to specify the parts of web requests in which you want to allow, block, or count cross-site scripting attacks.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Name": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 563)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

Name (p. 563)

A friendly name or description for the [XssMatchSet \(p. 1077\)](#) that you're creating. You can't change Name after you create the XssMatchSet.

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "string",  
    "XssMatchSet": {  
        "Name": "string",  
        "XssMatchSetId": "string",  
        "XssMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "TextTransformation": "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.

ChangeToken (p. 564)

The ChangeToken that you used to submit the CreateXssMatchSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: .*\S.*

XssMatchSet (p. 564)

An [XssMatchSet \(p. 1077\)](#).

Type: [XssMatchSet \(p. 1077\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFDisallowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

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

DeleteByteMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [ByteMatchSet \(p. 1000\)](#). You can't delete a ByteMatchSet if it's still used in any Rules or if it still includes any [ByteMatchTuple \(p. 1004\)](#) objects (any filters).

If you just want to remove a ByteMatchSet from a Rule, use [UpdateRule \(p. 743\)](#).

To permanently delete a ByteMatchSet, perform the following steps:

1. Update the ByteMatchSet to remove filters, if any. For more information, see [UpdateByteMatchSet \(p. 717\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteByteMatchSet request.
3. Submit a DeleteByteMatchSet request.

Request Syntax

```
{  
    "ByteMatchSetId": "string",  
    "ChangeToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ByteMatchSetId ([p. 567](#))

The ByteMatchSetId of the [ByteMatchSet \(p. 1000\)](#) that you want to delete. ByteMatchSetId is returned by [CreateByteMatchSet \(p. 516\)](#) and by [ListByteMatchSets \(p. 658\)](#).

Type: String

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

Pattern: .*\s.*

Required: Yes

ChangeToken ([p. 567](#))

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 568\)](#)

The `ChangeToken` that you used to submit the `DeleteByteMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFAccessDeniedException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteGeoMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [GeoMatchSet \(p. 1013\)](#). You can't delete a GeoMatchSet if it's still used in any Rules or if it still includes any countries.

If you just want to remove a GeoMatchSet from a Rule, use [UpdateRule \(p. 743\)](#).

To permanently delete a GeoMatchSet from AWS WAF, perform the following steps:

1. Update the GeoMatchSet to remove any countries. For more information, see [UpdateGeoMatchSet \(p. 721\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteGeoMatchSet request.
3. Submit a DeleteGeoMatchSet request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "GeoMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 570\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[GeoMatchSetId \(p. 570\)](#)

The `GeoMatchSetId` of the [GeoMatchSet \(p. 1013\)](#) that you want to delete. `GeoMatchSetId` is returned by [CreateGeoMatchSet \(p. 520\)](#) and by [ListGeoMatchSets \(p. 661\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 571\)](#)

The `ChangeToken` that you used to submit the `DeleteGeoMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFAccessDeniedException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteIPSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes an [IPSet \(p. 1020\)](#). You can't delete an IPSet if it's still used in any Rules or if it still includes any IP addresses.

If you just want to remove an IPSet from a Rule, use [UpdateRule \(p. 743\)](#).

To permanently delete an IPSet from AWS WAF, perform the following steps:

1. Update the IPSet to remove IP address ranges, if any. For more information, see [UpdateIPSet \(p. 725\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteIPSet request.
3. Submit a DeleteIPSet request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "IPSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 573\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[IPSetId \(p. 573\)](#)

The IPSetId of the [IPSet \(p. 1020\)](#) that you want to delete. IPSetId is returned by [CreateIPSet \(p. 524\)](#) and by [ListIPSets \(p. 664\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

ChangeToken (p. 574)

The `ChangeToken` that you used to submit the `DeleteIPSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#) (p. 614).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1085).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteLoggingConfiguration

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes the [LoggingConfiguration \(p. 1026\)](#) from the specified web ACL.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceArn (p. 576)

The Amazon Resource Name (ARN) of the web ACL from which you want to delete the [LoggingConfiguration \(p. 1026\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\S.*

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeletePermissionPolicy

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes an IAM policy from the specified RuleGroup.

The user making the request must be the owner of the RuleGroup.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceArn (p. 578)

The Amazon Resource Name (ARN) of the RuleGroup from which you want to delete the policy.

The user making the request must be the owner of the RuleGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\S.*

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteRateBasedRule

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [RateBasedRule \(p. 1030\)](#). You can't delete a rule if it's still used in any WebACL objects or if it still includes any predicates, such as ByteMatchSet objects.

If you just want to remove a rule from a WebACL, use [UpdateWebACL \(p. 760\)](#).

To permanently delete a RateBasedRule from AWS WAF, perform the following steps:

1. Update the RateBasedRule to remove predicates, if any. For more information, see [UpdateRateBasedRule \(p. 730\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteRateBasedRule request.
3. Submit a DeleteRateBasedRule request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RuleId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 580\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[RuleId \(p. 580\)](#)

The RuleId of the [RateBasedRule \(p. 1030\)](#) that you want to delete. RuleId is returned by [CreateRateBasedRule \(p. 527\)](#) and by [ListRateBasedRules \(p. 670\)](#).

Type: String

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

Pattern: `.*\$.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 581\)](#)

The `ChangeToken` that you used to submit the `DeleteRateBasedRule` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFAccessDeniedException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

DeleteRegexMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [RegexMatchSet \(p. 1032\)](#). You can't delete a RegexMatchSet if it's still used in any Rules or if it still includes any RegexMatchTuples objects (any filters).

If you just want to remove a RegexMatchSet from a Rule, use [UpdateRule \(p. 743\)](#).

To permanently delete a RegexMatchSet, perform the following steps:

1. Update the RegexMatchSet to remove filters, if any. For more information, see [UpdateRegexMatchSet \(p. 735\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteRegexMatchSet request.
3. Submit a DeleteRegexMatchSet request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RegexMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 583\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\s.*

Required: Yes

[RegexMatchSetId \(p. 583\)](#)

The `RegexMatchSetId` of the [RegexMatchSet \(p. 1032\)](#) that you want to delete. `RegexMatchSetId` is returned by [CreateRegexMatchSet \(p. 532\)](#) and by [ListRegexMatchSets \(p. 673\)](#).

Type: String

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

Pattern: `.*\$.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 584\)](#)

The `ChangeToken` that you used to submit the `DeleteRegexMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFAccessDeniedException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteRegexPatternSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [RegexPatternSet \(p. 1039\)](#). You can't delete a RegexPatternSet if it's still used in any RegexMatchSet or if the RegexPatternSet is not empty.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RegexPatternSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 586)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

RegexPatternSetId (p. 586)

The RegexPatternSetId of the [RegexPatternSet \(p. 1039\)](#) that you want to delete. RegexPatternSetId is returned by [CreateRegexPatternSet \(p. 535\)](#) and by [ListRegexPatternSets \(p. 676\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

ChangeToken (p. 586)

The `ChangeToken` that you used to submit the `DeleteRegexPatternSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#) (p. 614).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1085).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteRule

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [Rule \(p. 1043\)](#). You can't delete a Rule if it's still used in any WebACL objects or if it still includes any predicates, such as ByteMatchSet objects.

If you just want to remove a Rule from a WebACL, use [UpdateWebACL \(p. 760\)](#).

To permanently delete a Rule from AWS WAF, perform the following steps:

1. Update the Rule to remove predicates, if any. For more information, see [UpdateRule \(p. 743\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteRule request.
3. Submit a DeleteRule request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RuleId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 589\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[RuleId \(p. 589\)](#)

The RuleId of the [Rule \(p. 1043\)](#) that you want to delete. RuleId is returned by [CreateRule \(p. 538\)](#) and by [ListRules \(p. 685\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

ChangeToken (p. 590)

The `ChangeToken` that you used to submit the `DeleteRule` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

DeleteRuleGroup

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [RuleGroup \(p. 1045\)](#). You can't delete a RuleGroup if it's still used in any WebACL objects or if it still includes any rules.

If you just want to remove a RuleGroup from a WebACL, use [UpdateWebACL \(p. 760\)](#).

To permanently delete a RuleGroup from AWS WAF, perform the following steps:

1. Update the RuleGroup to remove rules, if any. For more information, see [UpdateRuleGroup \(p. 747\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteRuleGroup request.
3. Submit a DeleteRuleGroup request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RuleGroupId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 592\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[RuleGroupId \(p. 592\)](#)

The RuleGroupId of the [RuleGroup \(p. 1045\)](#) that you want to delete. RuleGroupId is returned by [CreateRuleGroup \(p. 542\)](#) and by [ListRuleGroups \(p. 682\)](#).

Type: String

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

Pattern: `.*\s.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

ChangeToken (p. 593)

The `ChangeToken` that you used to submit the `DeleteRuleGroup` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\s.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a `Rule` from a `WebACL`, but the `Rule` isn't in the specified `WebACL`.
- You tried to remove an IP address from an `IPSet`, but the IP address isn't in the specified `IPSet`.
- You tried to remove a `ByteMatchTuple` from a `ByteMatchSet`, but the `ByteMatchTuple` isn't in the specified `WebACL`.
- You tried to add a `Rule` to a `WebACL`, but the `Rule` already exists in the specified `WebACL`.
- You tried to add a `ByteMatchTuple` to a `ByteMatchSet`, but the `ByteMatchTuple` already exists in the specified `WebACL`.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.

- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFFailedDependencyException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

DeleteSizeConstraintSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [SizeConstraintSet \(p. 1056\)](#). You can't delete a SizeConstraintSet if it's still used in any Rules or if it still includes any [SizeConstraint \(p. 1053\)](#) objects (any filters).

If you just want to remove a SizeConstraintSet from a Rule, use [UpdateRule \(p. 743\)](#).

To permanently delete a SizeConstraintSet, perform the following steps:

1. Update the SizeConstraintSet to remove filters, if any. For more information, see [UpdateSizeConstraintSet \(p. 751\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteSizeConstraintSet request.
3. Submit a DeleteSizeConstraintSet request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "SizeConstraintSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 595\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\s.*

Required: Yes

[SizeConstraintSetId \(p. 595\)](#)

The SizeConstraintSetId of the [SizeConstraintSet \(p. 1056\)](#) that you want to delete. SizeConstraintSetId is returned by [CreateSizeConstraintSet \(p. 546\)](#) and by [ListSizeConstraintSets \(p. 688\)](#).

Type: String

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

Pattern: `.*\$.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 596\)](#)

The `ChangeToken` that you used to submit the `DeleteSizeConstraintSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFAccessDeniedException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteSqlInjectionMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [SqlInjectionMatchSet \(p. 1060\)](#). You can't delete a SqlInjectionMatchSet if it's still used in any Rules or if it still contains any [SqlInjectionMatchTuple \(p. 1064\)](#) objects.

If you just want to remove a SqlInjectionMatchSet from a Rule, use [UpdateRule \(p. 743\)](#).

To permanently delete a SqlInjectionMatchSet from AWS WAF, perform the following steps:

1. Update the SqlInjectionMatchSet to remove filters, if any. For more information, see [UpdateSqlInjectionMatchSet \(p. 756\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteSqlInjectionMatchSet request.
3. Submit a DeleteSqlInjectionMatchSet request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "SqlInjectionMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 598\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\s.*

Required: Yes

[SqlInjectionMatchSetId \(p. 598\)](#)

The SqlInjectionMatchSetId of the [SqlInjectionMatchSet \(p. 1060\)](#) that you want to delete. SqlInjectionMatchSetId is returned by [CreateSqlInjectionMatchSet \(p. 550\)](#) and by [ListSqlInjectionMatchSets \(p. 691\)](#).

Type: String

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

Pattern: `.*\$.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 599\)](#)

The `ChangeToken` that you used to submit the `DeleteSqlInjectionMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFAccessDeniedException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DeleteWebACL

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes a [WebACL \(p. 1073\)](#). You can't delete a WebACL if it still contains any Rules.

To delete a WebACL, perform the following steps:

1. Update the WebACL to remove Rules, if any. For more information, see [UpdateWebACL \(p. 760\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteWebACL request.
3. Submit a DeleteWebACL request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "WebACLId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 601\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

[WebACLId \(p. 601\)](#)

The WebACLId of the [WebACL \(p. 1073\)](#) that you want to delete. WebACLId is returned by [CreateWebACL \(p. 554\)](#) and by [ListWebACLs \(p. 700\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

ChangeToken (p. 602)

The `ChangeToken` that you used to submit the `DeleteWebACL` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

DeleteXssMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Permanently deletes an [XssMatchSet \(p. 1077\)](#). You can't delete an XssMatchSet if it's still used in any Rules or if it still contains any [XssMatchTuple \(p. 1081\)](#) objects.

If you just want to remove an XssMatchSet from a Rule, use [UpdateRule \(p. 743\)](#).

To permanently delete an XssMatchSet from AWS WAF, perform the following steps:

1. Update the XssMatchSet to remove filters, if any. For more information, see [UpdateXssMatchSet \(p. 765\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of a DeleteXssMatchSet request.
3. Submit a DeleteXssMatchSet request.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "XssMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 604)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\S.*

Required: Yes

XssMatchSetId (p. 604)

The XssMatchSetId of the [XssMatchSet \(p. 1077\)](#) that you want to delete. XssMatchSetId is returned by [CreateXssMatchSet \(p. 563\)](#) and by [ListXssMatchSets \(p. 703\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 605\)](#)

The `ChangeToken` that you used to submit the `DeleteXssMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonEmptyEntityException

The operation failed because you tried to delete an object that isn't empty. For example:

- You tried to delete a `WebACL` that still contains one or more `Rule` objects.
- You tried to delete a `Rule` that still contains one or more `ByteMatchSet` objects or other predicates.
- You tried to delete a `ByteMatchSet` that contains one or more `ByteMatchTuple` objects.
- You tried to delete an `IPSet` that references one or more IP addresses.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFAccessDeniedException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

DisassociateWebACL

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Removes a web ACL from the specified resource, either an application load balancer or Amazon API Gateway stage.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceArn (p. 607)

The ARN (Amazon Resource Name) of the resource from which the web ACL is being removed, either an application load balancer or Amazon API Gateway stage.

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 Amazon API Gateway stage: `arn:aws:apigateway:region::/restapis/api-id/stages/stage-name`

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than `INSERT` or `DELETE`.
- You tried to create a WebACL with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a WebACL with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a ByteMatchSet with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a ByteMatchSet with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetByteMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [ByteMatchSet \(p. 1000\)](#) specified by `ByteMatchSetId`.

Request Syntax

```
{  
    "ByteMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ByteMatchSetId (p. 609)

The `ByteMatchSetId` of the [ByteMatchSet \(p. 1000\)](#) that you want to get. `ByteMatchSetId` is returned by [CreateByteMatchSet \(p. 516\)](#) and by [ListByteMatchSets \(p. 658\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ByteMatchSet": {  
        "ByteMatchSetId": "string",  
        "ByteMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "PositionalConstraint": "string",  
                "TargetString": blob,  
                "TextTransformation": "string"  
            }  
        ],  
        "Name": "string"  
    }  
}
```

Response Elements

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

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

ByteMatchSet (p. 609)

Information about the [ByteMatchSet \(p. 1000\)](#) that you specified in the GetByteMatchSet request. For more information, see the following topics:

- [ByteMatchSet \(p. 1000\)](#): Contains ByteMatchSetId, ByteMatchTuples, and Name
- [ByteMatchTuples](#): Contains an array of [ByteMatchTuple \(p. 1004\)](#) objects. Each ByteMatchTuple object contains [FieldToMatch \(p. 1009\)](#), PositionalConstraint, TargetString, and TextTransformation
- [FieldToMatch \(p. 1009\)](#): Contains Data and Type

Type: [ByteMatchSet \(p. 1000\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetChangeToken

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

When you want to create, update, or delete AWS WAF objects, get a change token and include the change token in the create, update, or delete request. Change tokens ensure that your application doesn't submit conflicting requests to AWS WAF.

Each create, update, or delete request must use a unique change token. If your application submits a GetChangeToken request and then submits a second GetChangeToken request before submitting a create, update, or delete request, the second GetChangeToken request returns the same value as the first GetChangeToken request.

When you use a change token in a create, update, or delete request, the status of the change token changes to **PENDING**, which indicates that AWS WAF is propagating the change to all AWS WAF servers. Use GetChangeTokenStatus to determine the status of your change token.

Response Syntax

```
{  
    "ChangeToken": "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.

ChangeToken (p. 612)

The ChangeToken that you used in the request. Use this value in a GetChangeTokenStatus request to get the current status of the request.

Type: String

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

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

GetChangeTokenStatus

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the status of a ChangeToken that you got by calling [GetChangeToken \(p. 612\)](#). ChangeTokenStatus is one of the following values:

- **PROVISIONED**: You requested the change token by calling `GetChangeToken`, but you haven't used it yet in a call to create, update, or delete an AWS WAF object.
- **PENDING**: AWS WAF is propagating the create, update, or delete request to all AWS WAF servers.
- **INSYNC**: Propagation is complete.

Request Syntax

```
{  
    "ChangeToken": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ChangeToken (p. 614)

The change token for which you want to get the status. This change token was previously returned in the `GetChangeToken` response.

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeTokenStatus": "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.

[ChangeTokenStatus \(p. 614\)](#)

The status of the change token.

Type: String

Valid Values: PROVISIONED | PENDING | INSYNC

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetGeoMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [GeoMatchSet \(p. 1013\)](#) that is specified by `GeoMatchSetId`.

Request Syntax

```
{  
    "GeoMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

GeoMatchSetId (p. 616)

The `GeoMatchSetId` of the [GeoMatchSet \(p. 1013\)](#) that you want to get. `GeoMatchSetId` is returned by [CreateGeoMatchSet \(p. 520\)](#) and by [ListGeoMatchSets \(p. 661\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "GeoMatchSet": {  
        "GeoMatchConstraints": [  
            {  
                "Type": "string",  
                "Value": "string"  
            }  
        ],  
        "GeoMatchSetId": "string",  
        "Name": "string"  
    }  
}
```

Response Elements

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

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

GeoMatchSet (p. 616)

Information about the [GeoMatchSet \(p. 1013\)](#) that you specified in the GetGeoMatchSet request. This includes the Type, which for a GeoMatchConstraint is always Country, as well as the Value, which is the identifier for a specific country.

Type: [GeoMatchSet \(p. 1013\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetIPSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [IPSet \(p. 1020\)](#) that is specified by `IPSetId`.

Request Syntax

```
{  
    "IPSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

IPSetId (p. 618)

The `IPSetId` of the [IPSet \(p. 1020\)](#) that you want to get. `IPSetId` is returned by [CreateIPSet \(p. 524\)](#) and by [ListIPSets \(p. 664\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "IPSet": {  
        "IPSetDescriptors": [  
            {  
                "Type": "string",  
                "Value": "string"  
            }  
        ],  
        "IPSetId": "string",  
        "Name": "string"  
    }  
}
```

Response Elements

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

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

IPSet (p. 618)

Information about the [IPSet \(p. 1020\)](#) that you specified in the `GetIPSet` request. For more information, see the following topics:

- [IPSet \(p. 1020\)](#): Contains `IPSetDescriptors`, `IPSetId`, and `Name`
- `IPSetDescriptors`: Contains an array of [IPSetDescriptor \(p. 1022\)](#) objects. Each `IPSetDescriptor` object contains `Type` and `Value`

Type: [IPSet \(p. 1020\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetLoggingConfiguration

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [LoggingConfiguration \(p. 1026\)](#) for the specified web ACL.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceArn (p. 620)

The Amazon Resource Name (ARN) of the web ACL for which you want to get the [LoggingConfiguration \(p. 1026\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "LoggingConfiguration": {  
        "LogDestinationConfigs": [ "string" ],  
        "RedactedFields": [  
            {  
                "Data": "string",  
                "Type": "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.

LoggingConfiguration (p. 620)

The [LoggingConfiguration \(p. 1026\)](#) for the specified web ACL.

Type: [LoggingConfiguration \(p. 1026\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetPermissionPolicy

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the IAM policy attached to the RuleGroup.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceArn (p. 622)

The Amazon Resource Name (ARN) of the RuleGroup for which you want to get the policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "Policy": "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.

Policy (p. 622)

The IAM policy attached to the specified RuleGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 395000.

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetRateBasedRule

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [RateBasedRule \(p. 1030\)](#) that is specified by the `RuleId` that you included in the `GetRateBasedRule` request.

Request Syntax

```
{  
    "RuleId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

RuleId (p. 624)

The `RuleId` of the [RateBasedRule \(p. 1030\)](#) that you want to get. `RuleId` is returned by [CreateRateBasedRule \(p. 527\)](#) and by [ListRateBasedRules \(p. 670\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "Rule": {  
        "MatchPredicates": [  
            {  
                "DataId": "string",  
                "Negated": boolean,  
                "Type": "string"  
            }  
        ],  
        "MetricName": "string",  
        "Name": "string",  
        "RateKey": "string",  
        "RateLimit": number,  
        "RuleId": "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.

Rule (p. 624)

Information about the [RateBasedRule \(p. 1030\)](#) that you specified in the `GetRateBasedRule` request.

Type: [RateBasedRule \(p. 1030\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetRateBasedRuleManagedKeys

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of IP addresses currently being blocked by the [RateBasedRule \(p. 1030\)](#) that is specified by the `RuleId`. The maximum number of managed keys that will be blocked is 10,000. If more than 10,000 addresses exceed the rate limit, the 10,000 addresses with the highest rates will be blocked.

Request Syntax

```
{  
    "NextMarker": "string",  
    "RuleId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[NextMarker \(p. 626\)](#)

A null value and not currently used. Do not include this in your request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

[RuleId \(p. 626\)](#)

The `RuleId` of the [RateBasedRule \(p. 1030\)](#) for which you want to get a list of `ManagedKeys`. `RuleId` is returned by [CreateRateBasedRule \(p. 527\)](#) and by [ListRateBasedRules \(p. 670\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ManagedKeys": [ "string" ],
```

```
    "NextMarker": "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.

ManagedKeys (p. 626)

An array of IP addresses that currently are blocked by the specified [RateBasedRule \(p. 1030\)](#).

Type: Array of strings

NextMarker (p. 626)

A null value and not currently used.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\s.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetRegexMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [RegexMatchSet \(p. 1032\)](#) specified by `RegexMatchSetId`.

Request Syntax

```
{  
    "RegexMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

`RegexMatchSetId` (p. 629)

The `RegexMatchSetId` of the [RegexMatchSet \(p. 1032\)](#) that you want to get. `RegexMatchSetId` is returned by [CreateRegexMatchSet \(p. 532\)](#) and by [ListRegexMatchSets \(p. 673\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "RegexMatchSet": {  
        "Name": "string",  
        "RegexMatchSetId": "string",  
        "RegexMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "RegexPatternSetId": "string",  
                "TextTransformation": "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.

[RegexMatchSet \(p. 629\)](#)

Information about the [RegexMatchSet \(p. 1032\)](#) that you specified in the GetRegexMatchSet request. For more information, see [RegexMatchTuple \(p. 1036\)](#).

Type: [RegexMatchSet \(p. 1032\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetRegexPatternSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [RegexPatternSet \(p. 1039\)](#) specified by `RegexPatternSetId`.

Request Syntax

```
{  
    "RegexPatternSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

RegexPatternSetId ([p. 631](#))

The `RegexPatternSetId` of the [RegexPatternSet \(p. 1039\)](#) that you want to get. `RegexPatternSetId` is returned by [CreateRegexPatternSet \(p. 535\)](#) and by [ListRegexPatternSets \(p. 676\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "RegexPatternSet": {  
        "Name": "string",  
        "RegexPatternSetId": "string",  
        "RegexPatternStrings": [ "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.

[RegexPatternSet \(p. 631\)](#)

Information about the [RegexPatternSet \(p. 1039\)](#) that you specified in the GetRegexPatternSet request, including the identifier of the pattern set and the regular expression patterns you want AWS WAF to search for.

Type: [RegexPatternSet \(p. 1039\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetRule

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [Rule \(p. 1043\)](#) that is specified by the `RuleId` that you included in the GetRule request.

Request Syntax

```
{  
    "RuleId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

RuleId (p. 633)

The `RuleId` of the [Rule \(p. 1043\)](#) that you want to get. `RuleId` is returned by [CreateRule \(p. 538\)](#) and by [ListRules \(p. 685\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "Rule": {  
        "MetricName": "string",  
        "Name": "string",  
        "Predicates": [  
            {  
                "DataId": "string",  
                "Negated": boolean,  
                "Type": "string"  
            }  
        ],  
        "RuleId": "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.

Rule (p. 633)

Information about the [Rule \(p. 1043\)](#) that you specified in the GetRule request. For more information, see the following topics:

- [Rule \(p. 1043\)](#): Contains MetricName, Name, an array of Predicate objects, and RuleId
- [Predicate \(p. 1028\)](#): Each Predicate object contains DataId, Negated, and Type

Type: [Rule \(p. 1043\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetRuleGroup

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [RuleGroup \(p. 1045\)](#) that is specified by the `RuleGroupId` that you included in the `GetRuleGroup` request.

To view the rules in a rule group, use [ListActivatedRulesInRuleGroup \(p. 655\)](#).

Request Syntax

```
{  
    "RuleGroupId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

RuleGroupId (p. 635)

The `RuleGroupId` of the [RuleGroup \(p. 1045\)](#) that you want to get. `RuleGroupId` is returned by [CreateRuleGroup \(p. 542\)](#) and by [ListRuleGroups \(p. 682\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "RuleGroup": {  
        "MetricName": "string",  
        "Name": "string",  
        "RuleGroupId": "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.

[RuleGroup \(p. 635\)](#)

Information about the [RuleGroup \(p. 1045\)](#) that you specified in the GetRuleGroup request.

Type: [RuleGroup \(p. 1045\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetSampledRequests

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Gets detailed information about a specified number of requests--a sample--that AWS WAF randomly selects from among the first 5,000 requests that your AWS resource received during a time range that you choose. You can specify a sample size of up to 500 requests, and you can specify any time range in the previous three hours.

`GetSampledRequests` returns a time range, which is usually the time range that you specified. However, if your resource (such as an Amazon CloudFront distribution) received 5,000 requests before the specified time range elapsed, `GetSampledRequests` returns an updated time range. This new time range indicates the actual period during which AWS WAF selected the requests in the sample.

Request Syntax

```
{  
    "MaxItems": number,  
    "RuleId": "string",  
    "TimeWindow": {  
        "EndTime": number,  
        "StartTime": number  
    },  
    "WebAclId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[MaxItems \(p. 637\)](#)

The number of requests that you want AWS WAF to return from among the first 5,000 requests that your AWS resource received during the time range. If your resource received fewer requests than the value of `MaxItems`, `GetSampledRequests` returns information about all of them.

Type: Long

Valid Range: Minimum value of 1. Maximum value of 500.

Required: Yes

[RuleId \(p. 637\)](#)

`RuleId` is one of three values:

- The `RuleId` of the `Rule` or the `RuleGroupId` of the `RuleGroup` for which you want `GetSampledRequests` to return a sample of requests.
- `Default_Action`, which causes `GetSampledRequests` to return a sample of the requests that didn't match any of the rules in the specified WebACL.

Type: String

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

Pattern: .*\S.*

Required: Yes

[TimeWindow \(p. 637\)](#)

The start date and time and the end date and time of the range for which you want GetSampledRequests to return a sample of requests. You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, z. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: [TimeWindow \(p. 1070\)](#) object

Required: Yes

[WebAclId \(p. 637\)](#)

The WebAclId of the WebACL for which you want GetSampledRequests to return a sample of requests.

Type: String

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

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "PopulationSize": number,  
    "SampledRequests": [  
        {  
            "Action": "string",  
            "Request": {  
                "ClientIP": "string",  
                "Country": "string",  
                "Headers": [  
                    {  
                        "Name": "string",  
                        "Value": "string"  
                    }  
                ],  
                "HTTPVersion": "string",  
                "Method": "string",  
                "URI": "string"  
            },  
            "RuleWithinRuleGroup": "string",  
            "Timestamp": number,  
            "Weight": number  
        }  
    ],  
    "TimeWindow": {  
        "EndTime": number,  
        "StartTime": 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.

[PopulationSize \(p. 638\)](#)

The total number of requests from which GetSampledRequests got a sample of `MaxItems` requests. If `PopulationSize` is less than `MaxItems`, the sample includes every request that your AWS resource received during the specified time range.

Type: Long

[SampledRequests \(p. 638\)](#)

A complex type that contains detailed information about each of the requests in the sample.

Type: Array of [SampledHTTPRequest \(p. 1051\)](#) objects

[TimeWindow \(p. 638\)](#)

Usually, `TimeWindow` is the time range that you specified in the `GetSampledRequests` request. However, if your AWS resource received more than 5,000 requests during the time range that you specified in the request, `GetSampledRequests` returns the time range for the first 5,000 requests. Times are in Coordinated Universal Time (UTC) format.

Type: [TimeWindow \(p. 1070\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)

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

GetSizeConstraintSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [SizeConstraintSet \(p. 1056\)](#) specified by `SizeConstraintSetId`.

Request Syntax

```
{  
    "SizeConstraintSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[SizeConstraintSetId \(p. 641\)](#)

The `SizeConstraintSetId` of the [SizeConstraintSet \(p. 1056\)](#) that you want to get. `SizeConstraintSetId` is returned by [CreateSizeConstraintSet \(p. 546\)](#) and by [ListSizeConstraintSets \(p. 688\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "SizeConstraintSet": {  
        "Name": "string",  
        "SizeConstraints": [  
            {  
                "ComparisonOperator": "string",  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "Size": number,  
                "TextTransformation": "string"  
            }  
        ],  
        "SizeConstraintSetId": "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.

SizeConstraintSet (p. 641)

Information about the [SizeConstraintSet \(p. 1056\)](#) that you specified in the GetSizeConstraintSet request. For more information, see the following topics:

- [SizeConstraintSet \(p. 1056\)](#): Contains SizeConstraintSetId, SizeConstraints, and Name
- SizeConstraints: Contains an array of [SizeConstraint \(p. 1053\)](#) objects. Each SizeConstraint object contains FieldToMatch (p. 1009), TextTransformation, ComparisonOperator, and Size
- [FieldToMatch \(p. 1009\)](#): Contains Data and Type

Type: [SizeConstraintSet \(p. 1056\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)

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

GetSqlInjectionMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [SqlInjectionMatchSet \(p. 1060\)](#) that is specified by `SqlInjectionMatchSetId`.

Request Syntax

```
{  
    "SqlInjectionMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

`SqlInjectionMatchSetId` (p. 644)

The `SqlInjectionMatchSetId` of the [SqlInjectionMatchSet \(p. 1060\)](#) that you want to get. `SqlInjectionMatchSetId` is returned by [CreateSqlInjectionMatchSet \(p. 550\)](#) and by [ListSqlInjectionMatchSets \(p. 691\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "SqlInjectionMatchSet": {  
        "Name": "string",  
        "SqlInjectionMatchSetId": "string",  
        "SqlInjectionMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "TextTransformation": "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.

[SqlInjectionMatchSet \(p. 644\)](#)

Information about the [SqlInjectionMatchSet \(p. 1060\)](#) that you specified in the GetSqlInjectionMatchSet request. For more information, see the following topics:

- [SqlInjectionMatchSet \(p. 1060\)](#): Contains Name, SqlInjectionMatchSetId, and an array of SqlInjectionMatchTuple objects
- [SqlInjectionMatchTuple \(p. 1064\)](#): Each SqlInjectionMatchTuple object contains FieldToMatch and TextTransformation
- [FieldToMatch \(p. 1009\)](#): Contains Data and Type

Type: [SqlInjectionMatchSet \(p. 1060\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetWebACL

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [WebACL \(p. 1073\)](#) that is specified by `WebACLId`.

Request Syntax

```
{  
    "WebACLId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[WebACLId \(p. 647\)](#)

The `WebACLId` of the [WebACL \(p. 1073\)](#) that you want to get. `WebACLId` is returned by [CreateWebACL \(p. 554\)](#) and by [ListWebACLs \(p. 700\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "WebACL": {  
        "DefaultAction": {  
            "Type": "string"  
        },  
        "MetricName": "string",  
        "Name": "string",  
        "Rules": [  
            {  
                "Action": {  
                    "Type": "string"  
                },  
                "ExcludedRules": [  
                    {  
                        "RuleId": "string"  
                    }  
                ],  
                "OverrideAction": {  
                    "Type": "string"  
                }  
            }  
        ]  
    }  
}
```

```
        "Type": "string"
    },
    "Priority": number,
    "RuleId": "string",
    "Type": "string"
}
],
"WebACLArn": "string",
"WebACLId": "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.

[WebACL \(p. 647\)](#)

Information about the [WebACL \(p. 1073\)](#) that you specified in the GetWebACL request. For more information, see the following topics:

- [WebACL \(p. 1073\)](#): Contains DefaultAction, MetricName, Name, an array of Rule objects, and WebACLId
- DefaultAction (Data type is [WafAction \(p. 1071\)](#)): Contains Type
- Rules: Contains an array of ActivatedRule objects, which contain Action, Priority, and RuleId
- Action: Contains Type

Type: [WebACL \(p. 1073\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

GetWebACLForResource

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the web ACL for the specified resource, either an application load balancer or Amazon API Gateway stage.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceArn (p. 650)

The ARN (Amazon Resource Name) of the resource for which to get the web ACL, either an application load balancer or Amazon API Gateway stage.

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 Amazon API Gateway stage: arn:aws:apigateway:region::/restapis/api-id/stages/stage-name

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "WebACLSummary": {  
        "Name": "string",  
        "WebACLId": "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.

[WebACLSummary \(p. 650\)](#)

Information about the web ACL that you specified in the `GetWebACLForResource` request. If there is no associated resource, a null `WebACLSummary` is returned.

Type: [WebACLSummary \(p. 1075\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFFUnavailableEntityException

The operation failed because the entity referenced is temporarily unavailable. Retry your request.

HTTP Status Code: 400

See Also

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

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

GetXssMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns the [XssMatchSet \(p. 1077\)](#) that is specified by `XssMatchSetId`.

Request Syntax

```
{  
    "XssMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

XssMatchSetId (p. 653)

The `XssMatchSetId` of the [XssMatchSet \(p. 1077\)](#) that you want to get. `XssMatchSetId` is returned by [CreateXssMatchSet \(p. 563\)](#) and by [ListXssMatchSets \(p. 703\)](#).

Type: String

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

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "XssMatchSet": {  
        "Name": "string",  
        "XssMatchSetId": "string",  
        "XssMatchTuples": [  
            {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "TextTransformation": "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.

[XssMatchSet \(p. 653\)](#)

Information about the [XssMatchSet \(p. 1077\)](#) that you specified in the GetXssMatchSet request. For more information, see the following topics:

- [XssMatchSet \(p. 1077\)](#): Contains Name, XssMatchSetId, and an array of [XssMatchTuple](#) objects
- [XssMatchTuple \(p. 1081\)](#): Each [XssMatchTuple](#) object contains [FieldToMatch](#) and [TextTransformation](#)
- [FieldToMatch \(p. 1009\)](#): Contains Data and Type

Type: [XssMatchSet \(p. 1077\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

ListActivatedRulesInRuleGroup

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [ActivatedRule \(p. 997\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string",  
    "RuleGroupId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Limit \(p. 655\)](#)

Specifies the number of `ActivatedRules` that you want AWS WAF to return for this request. If you have more `ActivatedRules` than the number that you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of `ActivatedRules`.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

[NextMarker \(p. 655\)](#)

If you specify a value for `Limit` and you have more `ActivatedRules` than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `ActivatedRules`. For the second and subsequent `ListActivatedRulesInRuleGroup` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `ActivatedRules`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

[RuleGroupId \(p. 655\)](#)

The `RuleGroupId` of the [RuleGroup \(p. 1045\)](#) for which you want to get a list of [ActivatedRule \(p. 997\)](#) objects.

Type: String

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

Pattern: .*\S.*

Required: No

Response Syntax

```
{  
    "ActivatedRules": [  
        {  
            "Action": {  
                "Type": "string"  
            },  
            "ExcludedRules": [  
                {  
                    "RuleId": "string"  
                }  
            ],  
            "OverrideAction": {  
                "Type": "string"  
            },  
            "Priority": number,  
            "RuleId": "string",  
            "Type": "string"  
        }  
    ],  
    "NextMarker": "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.

[ActivatedRules \(p. 656\)](#)

An array of ActivatedRules objects.

Type: Array of [ActivatedRule \(p. 997\)](#) objects

[NextMarker \(p. 656\)](#)

If you have more ActivatedRules than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more ActivatedRules, submit another `ListActivatedRulesInRuleGroup` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

ListByteMatchSets

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [ByteMatchSetSummary \(p. 1002\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 658)

Specifies the number of ByteMatchSet objects that you want AWS WAF to return for this request. If you have more ByteMatchSets objects than the number you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of ByteMatchSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 658)

If you specify a value for `Limit` and you have more ByteMatchSets than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of ByteMatchSets. For the second and subsequent `ListByteMatchSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of ByteMatchSets.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"ByteMatchSets": [  
    {  
        "ByteMatchSetId": "string",  
        "Name": "string"  
    }  
,  
    "NextMarker": "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.

ByteMatchSets (p. 658)

An array of [ByteMatchSetSummary \(p. 1002\)](#) objects.

Type: Array of [ByteMatchSetSummary \(p. 1002\)](#) objects

NextMarker (p. 658)

If you have more ByteMatchSet objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more ByteMatchSet objects, submit another `ListByteMatchSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListGeoMatchSets

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [GeoMatchSetSummary \(p. 1015\)](#) objects in the response.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 661)

Specifies the number of GeoMatchSet objects that you want AWS WAF to return for this request. If you have more GeoMatchSet objects than the number you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of GeoMatchSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 661)

If you specify a value for `Limit` and you have more GeoMatchSets than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of GeoMatchSet objects. For the second and subsequent `ListGeoMatchSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of GeoMatchSet objects.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"GeoMatchSets": [  
    {  
        "GeoMatchSetId": "string",  
        "Name": "string"  
    }  
,  
    "NextMarker": "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.

GeoMatchSets (p. 661)

An array of [GeoMatchSetSummary \(p. 1015\)](#) objects.

Type: Array of [GeoMatchSetSummary \(p. 1015\)](#) objects

NextMarker (p. 661)

If you have more GeoMatchSet objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more GeoMatchSet objects, submit another `ListGeoMatchSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListIPSets

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [IPSetSummary](#) (p. 1024) objects in the response.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 1083).

The request accepts the following data in JSON format.

Limit (p. 664)

Specifies the number of `IPSet` objects that you want AWS WAF to return for this request. If you have more `IPSet` objects than the number you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of `IPSet` objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 664)

AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `IPSets`. For the second and subsequent `ListIPSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `IPSets`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{  
    "IPSets": [  
        {
```

```
        "IPSetId": "string",
        "Name": "string"
    }
],
"NextMarker": "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.

IPSets (p. 664)

An array of [IPSetSummary \(p. 1024\)](#) objects.

Type: Array of [IPSetSummary \(p. 1024\)](#) objects

NextMarker (p. 664)

To list more IPSet objects, submit another `ListIPSets` request, and in the next request use the `NextMarker` response value as the `NextMarker` value.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)

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

ListLoggingConfigurations

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [LoggingConfiguration \(p. 1026\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 667)

Specifies the number of LoggingConfigurations that you want AWS WAF to return for this request. If you have more LoggingConfigurations than the number that you specify for Limit, the response includes a NextMarker value that you can use to get another batch of LoggingConfigurations.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 667)

If you specify a value for Limit and you have more LoggingConfigurations than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of LoggingConfigurations. For the second and subsequent ListLoggingConfigurations requests, specify the value of NextMarker from the previous response to get information about another batch of ListLoggingConfigurations.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"LoggingConfigurations": [
    {
        "LogDestinationConfigs": [ "string" ],
        "RedactedFields": [
            {
                "Data": "string",
                "Type": "string"
            }
        ],
        "ResourceArn": "string"
    }
],
"NextMarker": "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.

[LoggingConfigurations \(p. 667\)](#)

An array of [LoggingConfiguration \(p. 1026\)](#) objects.

Type: Array of [LoggingConfiguration \(p. 1026\)](#) objects

[NextMarker \(p. 667\)](#)

If you have more LoggingConfigurations than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more LoggingConfigurations, submit another `ListLoggingConfigurations` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than `INSERT` or `DELETE`.
- You tried to create a WebACL with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.

- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

ListRateBasedRules

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [RuleSummary \(p. 1049\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 670)

Specifies the number of Rules that you want AWS WAF to return for this request. If you have more Rules than the number that you specify for Limit, the response includes a NextMarker value that you can use to get another batch of Rules.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 670)

If you specify a value for Limit and you have more Rules than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of Rules. For the second and subsequent ListRateBasedRules requests, specify the value of NextMarker from the previous response to get information about another batch of Rules.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\S.*

Required: No

Response Syntax

```
{  
    "NextMarker": "string",
```

```
"Rules": [  
    {  
        "Name": "string",  
        "RuleId": "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.

[NextMarker \(p. 670\)](#)

If you have more `Rules` than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more `Rules`, submit another `ListRateBasedRules` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

[Rules \(p. 670\)](#)

An array of [RuleSummary \(p. 1049\)](#) objects.

Type: Array of [RuleSummary \(p. 1049\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListRegexMatchSets

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [RegexMatchSetSummary \(p. 1034\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 673)

Specifies the number of `RegexMatchSet` objects that you want AWS WAF to return for this request. If you have more `RegexMatchSet` objects than the number you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of `RegexMatchSet` objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 673)

If you specify a value for `Limit` and you have more `RegexMatchSet` objects than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `ByteMatchSets`. For the second and subsequent `ListRegexMatchSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `RegexMatchSet` objects.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"NextMarker": "string",
"RegexMatchSets": [
    {
        "Name": "string",
        "RegexMatchSetId": "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.

[NextMarker \(p. 673\)](#)

If you have more RegexMatchSet objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more RegexMatchSet objects, submit another `ListRegexMatchSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

[RegexMatchSets \(p. 673\)](#)

An array of [RegexMatchSetSummary \(p. 1034\)](#) objects.

Type: Array of [RegexMatchSetSummary \(p. 1034\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListRegexPatternSets

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [RegexPatternSetSummary \(p. 1041\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 676)

Specifies the number of RegexPatternSet objects that you want AWS WAF to return for this request. If you have more RegexPatternSet objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of RegexPatternSet objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 676)

If you specify a value for Limit and you have more RegexPatternSet objects than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of RegexPatternSet objects. For the second and subsequent ListRegexPatternSets requests, specify the value of NextMarker from the previous response to get information about another batch of RegexPatternSet objects.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"NextMarker": "string",
"RegexPatternSets": [
    {
        "Name": "string",
        "RegexPatternSetId": "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.

NextMarker ([p. 676](#))

If you have more RegexPatternSet objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more RegexPatternSet objects, submit another `ListRegexPatternSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

RegexPatternSets ([p. 676](#))

An array of `RegexPatternSetSummary` ([p. 1041](#)) objects.

Type: Array of `RegexPatternSetSummary` ([p. 1041](#)) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListResourcesForWebACL

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of resources associated with the specified web ACL.

Request Syntax

```
{  
    "ResourceType": "string",  
    "WebACLId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceType (p. 679)

The type of resource to list.

Type: String

Valid Values: APPLICATION_LOAD_BALANCER | API_GATEWAY

Required: No

WebACLId (p. 679)

The unique identifier (ID) of the web ACL for which to list the associated resources.

Type: String

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

Pattern: .*\s.*

Required: Yes

Response Syntax

```
{  
    "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.

ResourceArns (p. 679)

An array of ARNs (Amazon Resource Names) of the resources associated with the specified web ACL. An array with zero elements is returned if there are no resources associated with the web ACL.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\\$.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

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

ListRuleGroups

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [RuleGroup \(p. 1045\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 682)

Specifies the number of RuleGroups that you want AWS WAF to return for this request. If you have more RuleGroups than the number that you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of RuleGroups.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 682)

If you specify a value for `Limit` and you have more RuleGroups than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of RuleGroups. For the second and subsequent `ListRuleGroups` requests, specify the value of `NextMarker` from the previous response to get information about another batch of RuleGroups.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{  
    "NextMarker": "string",
```

```
"RuleGroups": [  
    {  
        "Name": "string",  
        "RuleGroupId": "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.

[NextMarker \(p. 682\)](#)

If you have more RuleGroups than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more RuleGroups, submit another `ListRuleGroups` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

[RuleGroups \(p. 682\)](#)

An array of [RuleGroup \(p. 1045\)](#) objects.

Type: Array of [RuleGroupSummary \(p. 1047\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your 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](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)

- [AWS SDK for Ruby V3](#)

ListRules

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [RuleSummary \(p. 1049\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 685)

Specifies the number of `Rules` that you want AWS WAF to return for this request. If you have more `Rules` than the number that you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of `Rules`.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 685)

If you specify a value for `Limit` and you have more `Rules` than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `Rules`. For the second and subsequent `ListRules` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `Rules`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{  
    "NextMarker": "string",
```

```
"Rules": [  
    {  
        "Name": "string",  
        "RuleId": "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.

[NextMarker \(p. 685\)](#)

If you have more `Rules` than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more `Rules`, submit another `ListRules` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

[Rules \(p. 685\)](#)

An array of [RuleSummary \(p. 1049\)](#) objects.

Type: Array of [RuleSummary \(p. 1049\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFinvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

ListSizeConstraintSets

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [SizeConstraintSetSummary \(p. 1058\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 688)

Specifies the number of `SizeConstraintSet` objects that you want AWS WAF to return for this request. If you have more `SizeConstraintSets` objects than the number you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of `SizeConstraintSet` objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 688)

If you specify a value for `Limit` and you have more `SizeConstraintSets` than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `SizeConstraintSets`. For the second and subsequent `ListSizeConstraintSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `SizeConstraintSets`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"NextMarker": "string",
"SizeConstraintSets": [
    {
        "Name": "string",
        "SizeConstraintSetId": "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.

[NextMarker \(p. 688\)](#)

If you have more `SizeConstraintSet` objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more `SizeConstraintSet` objects, submit another `ListSizeConstraintSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

[SizeConstraintSets \(p. 688\)](#)

An array of [SizeConstraintSetSummary \(p. 1058\)](#) objects.

Type: Array of [SizeConstraintSetSummary \(p. 1058\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListSqlInjectionMatchSets

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [SqlInjectionMatchSet \(p. 1060\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 691)

Specifies the number of [SqlInjectionMatchSet \(p. 1060\)](#) objects that you want AWS WAF to return for this request. If you have more `SqlInjectionMatchSet` objects than the number you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of `Rules`.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 691)

If you specify a value for `Limit` and you have more [SqlInjectionMatchSet \(p. 1060\)](#) objects than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of `SqlInjectionMatchSets`. For the second and subsequent `ListSqlInjectionMatchSets` requests, specify the value of `NextMarker` from the previous response to get information about another batch of `SqlInjectionMatchSets`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"NextMarker": "string",
"SqlInjectionMatchSets": [
    {
        "Name": "string",
        "SqlInjectionMatchSetId": "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.

NextMarker ([p. 691](#))

If you have more [SqlInjectionMatchSet](#) ([p. 1060](#)) objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more `SqlInjectionMatchSet` objects, submit another `ListSqlInjectionMatchSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

SqlInjectionMatchSets ([p. 691](#))

An array of [SqlInjectionMatchSetSummary](#) ([p. 1062](#)) objects.

Type: Array of [SqlInjectionMatchSetSummary](#) ([p. 1062](#)) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#) ([p. 1085](#)).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListSubscribedRuleGroups

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [RuleGroup \(p. 1045\)](#) objects that you are subscribed to.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 694)

Specifies the number of subscribed rule groups that you want AWS WAF to return for this request. If you have more objects than the number you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 694)

If you specify a value for `Limit` and you have more `ByteMatchSet`s subscribed rule groups than the value of `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of subscribed rule groups. For the second and subsequent `ListSubscribedRuleGroupsRequest` requests, specify the value of `NextMarker` from the previous response to get information about another batch of subscribed rule groups.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"NextMarker": "string",
"RuleGroups": [
    {
        "MetricName": "string",
        "Name": "string",
        "RuleGroupId": "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.

[NextMarker \(p. 694\)](#)

If you have more objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more objects, submit another `ListSubscribedRuleGroups` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

[RuleGroups \(p. 694\)](#)

An array of [RuleGroup \(p. 1045\)](#) objects.

Type: Array of [SubscribedRuleGroupSummary \(p. 1066\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListTagsForResource

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Retrieves the tags associated with the specified AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, 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.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string",  
    "ResourceARN": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Limit \(p. 697\)](#)

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

[NextMarker \(p. 697\)](#)

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

[ResourceARN \(p. 697\)](#)

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "NextMarker": "string",  
    "TagInfoForResource": [  
        {  
            "ResourceARN": "string",  
            "TagList": [  
                {  
                    "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.

[NextMarker \(p. 698\)](#)

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

[TagInfoForResource \(p. 698\)](#)

Type: [TagInfoForResource \(p. 1069\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFBadRequestException

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.

- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

ListWebACLS

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [WebACLSummary \(p. 1075\)](#) objects in the response.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 700)

Specifies the number of WebACL objects that you want AWS WAF to return for this request. If you have more WebACL objects than the number that you specify for `Limit`, the response includes a `NextMarker` value that you can use to get another batch of WebACL objects.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 700)

If you specify a value for `Limit` and you have more WebACL objects than the number that you specify for `Limit`, AWS WAF returns a `NextMarker` value in the response that allows you to list another group of WebACL objects. For the second and subsequent `ListWebACLS` requests, specify the value of `NextMarker` from the previous response to get information about another batch of WebACL objects.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"NextMarker": "string",
"WebACLs": [
    {
        "Name": "string",
        "WebACLId": "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.

[NextMarker \(p. 700\)](#)

If you have more WebACL objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more WebACL objects, submit another `ListWebACLs` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\s.*`

[WebACLs \(p. 700\)](#)

An array of [WebACLSummary \(p. 1075\)](#) objects.

Type: Array of [WebACLSummary \(p. 1075\)](#) objects

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

ListXssMatchSets

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returns an array of [XssMatchSet \(p. 1077\)](#) objects.

Request Syntax

```
{  
    "Limit": number,  
    "NextMarker": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

Limit (p. 703)

Specifies the number of [XssMatchSet \(p. 1077\)](#) objects that you want AWS WAF to return for this request. If you have more XssMatchSet objects than the number you specify for Limit, the response includes a NextMarker value that you can use to get another batch of Rules.

Type: Integer

Valid Range: Minimum value of 0. Maximum value of 100.

Required: No

NextMarker (p. 703)

If you specify a value for Limit and you have more [XssMatchSet \(p. 1077\)](#) objects than the value of Limit, AWS WAF returns a NextMarker value in the response that allows you to list another group of XssMatchSets. For the second and subsequent ListXssMatchSets requests, specify the value of NextMarker from the previous response to get information about another batch of XssMatchSets.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: No

Response Syntax

```
{
```

```
"NextMarker": "string",
"XssMatchSets": [
    {
        "Name": "string",
        "XssMatchSetId": "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.

NextMarker ([p. 703](#))

If you have more [XssMatchSet](#) ([p. 1077](#)) objects than the number that you specified for `Limit` in the request, the response includes a `NextMarker` value. To list more `XssMatchSet` objects, submit another `ListXssMatchSets` request, and specify the `NextMarker` value from the response in the `NextMarker` value in the next request.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

XssMatchSets ([p. 703](#))

An array of [XssMatchSetSummary](#) ([p. 1079](#)) objects.

Type: Array of [XssMatchSetSummary](#) ([p. 1079](#)) objects

Errors

For information about the errors that are common to all actions, see [Common Errors](#) ([p. 1085](#)).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

See Also

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

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

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

PutLoggingConfiguration

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Associates a [LoggingConfiguration \(p. 1026\)](#) with a specified web ACL.

You can access information about all traffic that AWS WAF inspects using the following steps:

1. Create an Amazon Kinesis Data Firehose.

Create the data firehose with a PUT source and in the region that you are operating. However, if you are capturing logs for Amazon CloudFront, always create the firehose in US East (N. Virginia).

Give the data firehose a name that starts with the prefix `aws-waf-logs-`. For example, `aws-waf-logs-us-east-2-analytics`.

Note

Do not create the data firehose using a `Kinesis stream` as your source.

2. Associate that firehose to your web ACL using a `PutLoggingConfiguration` request.

When you successfully enable logging using a `PutLoggingConfiguration` request, AWS WAF will create a service linked role with the necessary permissions to write logs to the Amazon Kinesis Data Firehose. For more information, see [Logging Web ACL Traffic Information](#) in the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "LoggingConfiguration": {  
        "LogDestinationConfigs": [ "string" ],  
        "RedactedFields": [  
            {  
                "Data": "string",  
                "Type": "string"  
            }  
        ],  
        "ResourceArn": "string"  
    }  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[LoggingConfiguration \(p. 706\)](#)

The Amazon Kinesis Data Firehose that contains the inspected traffic information, the redacted fields details, and the Amazon Resource Name (ARN) of the web ACL to monitor.

Note

When specifying Type in RedactedFields, you must use one of the following values: URI, QUERY_STRING, HEADER, or METHOD.

Type: [LoggingConfiguration \(p. 1026\)](#) object

Required: Yes

Response Syntax

```
{  
    "LoggingConfiguration": {  
        "LogDestinationConfigs": [ "string" ],  
        "RedactedFields": [  
            {  
                "Data": "string",  
                "Type": "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.

[LoggingConfiguration \(p. 707\)](#)

The [LoggingConfiguration \(p. 1026\)](#) that you submitted in the request.

Type: [LoggingConfiguration \(p. 1026\)](#) object

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFServiceLinkedRoleErrorException

AWS WAF is not able to access the service linked role. This can be caused by a previous PutLoggingConfiguration request, which can lock the service linked role for about 20 seconds. Please try your request again. The service linked role can also be locked by a previous DeleteServiceLinkedRole request, which can lock the role for 15 minutes or more. If you recently made a DeleteServiceLinkedRole, wait at least 15 minutes and try the request again.

If you receive this same exception again, you will have to wait additional time until the role is unlocked.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

PutPermissionPolicy

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Attaches an IAM policy to the specified resource. The only supported use for this action is to share a RuleGroup across accounts.

The PutPermissionPolicy is subject to the following restrictions:

- You can attach only one policy with each PutPermissionPolicy request.
- The policy must include an `Effect`, `Action` and `Principal`.
- `Effect` must specify `Allow`.
- The `Action` in the policy must be `waf:UpdateWebACL`, `waf-regional:UpdateWebACL`, `waf:GetRuleGroup` and `waf-regional:GetRuleGroup`. Any extra or wildcard actions in the policy will be rejected.
- The policy cannot include a `Resource` parameter.
- The ARN in the request must be a valid RuleGroup ARN and the RuleGroup must exist in the same region.
- The user making the request must be the owner of the RuleGroup.
- Your policy must be composed using IAM Policy version 2012-10-17.

For more information, see [Policies and permissions in IAM](#).

An example of a valid policy parameter is shown in the Examples section below.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[Policy \(p. 709\)](#)

The policy to attach to the specified RuleGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 395000.

Pattern: `.*\S.*`

Required: Yes

ResourceArn (p. 709)

The Amazon Resource Name (ARN) of the RuleGroup to which you want to attach the policy.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidPermissionPolicyException

The operation failed because the specified policy is not in the proper format.

The policy is subject to the following restrictions:

- You can attach only one policy with each `PutPermissionPolicy` request.
- The policy must include an `Effect`, `Action` and `Principal`.
- `Effect` must specify `Allow`.
- The `Action` in the policy must be `waf:UpdateWebACL`, `waf-regional:UpdateWebACL`, `waf:GetRuleGroup` and `waf-regional:GetRuleGroup`. Any extra or wildcard actions in the policy will be rejected.
- The policy cannot include a `Resource` parameter.
- The ARN in the request must be a valid WAF RuleGroup ARN and the RuleGroup must exist in the same region.
- The user making the request must be the owner of the RuleGroup.
- Your policy must be composed using IAM Policy version 2012-10-17.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

Examples

Example policy parameter - No escape characters

This example illustrates one usage of PutPermissionPolicy.

```
{  
    "Version": "2012-10-17",  
    "Statement": [  
        {  
            "Effect": "Allow",  
            "Principal": {  
                "AWS": "arn:aws:iam::111111111111:user/MyUserName"  
            },  
            "Action": [  
                "waf:UpdateWebACL",  
                "waf-regional:UpdateWebACL",  
                "waf:GetRuleGroup",  
                "waf-regional:GetRuleGroup"  
            ]  
        }  
    ]  
}
```

Example policy parameter - ()

This example illustrates one usage of PutPermissionPolicy.

```
{"\"Version\":\"2012-10-17\", \"Statement\":[{\"Effect\":\"Allow\", \"Principal\":{\"AWS\": \"arn:aws:iam::111111111111:user/MyUserName\"}, \"Action\":[\"waf:UpdateWebACL\", \"waf-regional:UpdateWebACL\", \"waf:GetRuleGroup\", \"waf-regional:GetRuleGroup\"]}]}{
```

See Also

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

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

TagResource

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Associates tags with the specified AWS resource. Tags are key:value pairs that you can use to categorize and manage your resources, for purposes like billing. For example, 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.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can use this action to tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ResourceARN \(p. 712\)](#)

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\s.*

Required: Yes

[Tags \(p. 712\)](#)

Type: Array of [Tag \(p. 1068\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFBadRequestException

HTTP Status Code: 400

WAFLimitsExceededException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than `INSERT` or `DELETE`.
- You tried to create a WebACL with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a RateBasedRule with a `RateKey` value other than `IP`.
- You tried to update a WebACL with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a ByteMatchSet with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a ByteMatchSet with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFTagOperationException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFTagOperationInternalErrorException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

UntagResource

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Request Syntax

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

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ResourceARN (p. 715)

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\S.*

Required: Yes

TagKeys (p. 715)

Type: Array of strings

Array Members: Minimum number of 1 item.

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

Pattern: .*\S.*

Required: Yes

Response Elements

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

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFBadRequestException

HTTP Status Code: 400

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFTagOperationException

HTTP Status Code: 400

WAFTagOperationInternalErrorException

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

UpdateByteMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [ByteMatchTuple \(p. 1004\)](#) objects (filters) in a [ByteMatchSet \(p. 1000\)](#). For each ByteMatchTuple object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change a ByteMatchSetUpdate object, you delete the existing object and add a new one.
- The part of a web request that you want AWS WAF to inspect, such as a query string or the value of the User-Agent header.
- The bytes (typically a string that corresponds with ASCII characters) that you want AWS WAF to look for. For more information, including how you specify the values for the AWS WAF API and the AWS CLI or AWS SDKs, see [TargetString](#) in the [ByteMatchTuple \(p. 1004\)](#) data type.
- Where to look, such as at the beginning or the end of a query string.
- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

For example, you can add a ByteMatchSetUpdate object that matches web requests in which User-Agent headers contain the string BadBot. You can then configure AWS WAF to block those requests.

To create and configure a ByteMatchSet, perform the following steps:

1. Create a ByteMatchSet. For more information, see [CreateByteMatchSet \(p. 516\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of an UpdateByteMatchSet request.
3. Submit an UpdateByteMatchSet request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ByteMatchSetId": "string",  
    "ChangeToken": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "ByteMatchTuple": {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "PositionalConstraint": "string",  
                "TargetString": blob,  
                "TextTransformation": "string"  
            }  
        }  
    ]  
}
```

```
        }
    ]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

ByteMatchSetId (p. 717)

The `ByteMatchSetId` of the [ByteMatchSet \(p. 1000\)](#) that you want to update. `ByteMatchSetId` is returned by [CreateByteMatchSet \(p. 516\)](#) and by [ListByteMatchSets \(p. 658\)](#).

Type: String

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

Pattern: `.*\$.*`

Required: Yes

ChangeToken (p. 717)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: `.*\$.*`

Required: Yes

Updates (p. 717)

An array of `ByteMatchSetUpdate` objects that you want to insert into or delete from a [ByteMatchSet \(p. 1000\)](#). For more information, see the applicable data types:

- [ByteMatchSetUpdate \(p. 1003\)](#): Contains `Action` and `ByteMatchTuple`
- [ByteMatchTuple \(p. 1004\)](#): Contains `FieldToMatch`, `PositionalConstraint`, `TargetString`, and `TextTransformation`
- [FieldToMatch \(p. 1009\)](#): Contains `Data` and `Type`

Type: Array of [ByteMatchSetUpdate \(p. 1003\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{
  "ChangeToken": "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.

ChangeToken (p. 718)

The `ChangeToken` that you used to submit the `UpdateByteMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a `Rule` from a `WebACL`, but the `Rule` isn't in the specified `WebACL`.
- You tried to remove an IP address from an `IPSet`, but the IP address isn't in the specified `IPSet`.
- You tried to remove a `ByteMatchTuple` from a `ByteMatchSet`, but the `ByteMatchTuple` isn't in the specified `WebACL`.
- You tried to add a `Rule` to a `WebACL`, but the `Rule` already exists in the specified `WebACL`.
- You tried to add a `ByteMatchTuple` to a `ByteMatchSet`, but the `ByteMatchTuple` already exists in the specified `WebACL`.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.

- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a `Rule` to or delete a `Rule` from a `WebACL` that doesn't exist.
- You tried to add a `ByteMatchSet` to or delete a `ByteMatchSet` from a `Rule` that doesn't exist.
- You tried to add an IP address to or delete an IP address from an `IPSet` that doesn't exist.
- You tried to add a `ByteMatchTuple` to or delete a `ByteMatchTuple` from a `ByteMatchSet` that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

UpdateGeoMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [GeoMatchConstraint \(p. 1011\)](#) objects in an GeoMatchSet. For each GeoMatchConstraint object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change an GeoMatchConstraint object, you delete the existing object and add a new one.
- The **Type**. The only valid value for **Type** is **Country**.
- The **Value**, which is a two character code for the country to add to the GeoMatchConstraint object. Valid codes are listed in [GeoMatchConstraint:Value \(p. 1011\)](#).

To create and configure an GeoMatchSet, perform the following steps:

1. Submit a [CreateGeoMatchSet \(p. 520\)](#) request.
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the **ChangeToken** parameter of an [UpdateGeoMatchSet \(p. 721\)](#) request.
3. Submit an [UpdateGeoMatchSet](#) request to specify the country that you want AWS WAF to watch for.

When you update an GeoMatchSet, you specify the country that you want to add and/or the country that you want to delete. If you want to change a country, you delete the existing country and add the new one.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "GeoMatchSetId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "GeoMatchConstraint": {  
                "Type": "string",  
                "Value": "string"  
            }  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 721\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\s.*

Required: Yes

[GeoMatchSetId \(p. 721\)](#)

The `GeoMatchSetId` of the [GeoMatchSet \(p. 1013\)](#) that you want to update. `GeoMatchSetId` is returned by [CreateGeoMatchSet \(p. 520\)](#) and by [ListGeoMatchSets \(p. 661\)](#).

Type: String

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

Pattern: .*\s.*

Required: Yes

[Updates \(p. 721\)](#)

An array of `GeoMatchSetUpdate` objects that you want to insert into or delete from an [GeoMatchSet \(p. 1013\)](#). For more information, see the applicable data types:

- [GeoMatchSetUpdate \(p. 1016\)](#): Contains `Action` and `GeoMatchConstraint`
- [GeoMatchConstraint \(p. 1011\)](#): Contains `Type` and `Value`

You can have only one `Type` and `Value` per `GeoMatchConstraint`. To add multiple countries, include multiple `GeoMatchSetUpdate` objects in your request.

Type: Array of [GeoMatchSetUpdate \(p. 1016\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{  
  "ChangeToken": "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.

[ChangeToken \(p. 722\)](#)

The `ChangeToken` that you used to submit the `UpdateGeoMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

UpdateIPSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [IPSetDescriptor \(p. 1022\)](#) objects in an [IPSet](#). For each [IPSetDescriptor](#) object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change an [IPSetDescriptor](#) object, you delete the existing object and add a new one.
- The IP address version, [IPv4](#) or [IPv6](#).
- The IP address in CIDR notation, for example, `192.0.2.0/24` (for the range of IP addresses from `192.0.2.0` to `192.0.2.255`) or `192.0.2.44/32` (for the individual IP address `192.0.2.44`).

AWS WAF supports IPv4 address ranges: /8 and any range between /16 through /32. AWS WAF supports IPv6 address ranges: /24, /32, /48, /56, /64, and /128. For more information about CIDR notation, see the Wikipedia entry [Classless Inter-Domain Routing](#).

IPv6 addresses can be represented using any of the following formats:

- `1111:0000:0000:0000:0000:0000:0111/128`
- `1111:0:0:0:0:0111/128`
- `1111::0111/128`
- `1111::111/128`

You use an [IPSet](#) to specify which web requests you want to allow or block based on the IP addresses that the requests originated from. For example, if you're receiving a lot of requests from one or a small number of IP addresses and you want to block the requests, you can create an [IPSet](#) that specifies those IP addresses, and then configure AWS WAF to block the requests.

To create and configure an [IPSet](#), perform the following steps:

1. Submit a [CreateIPSet \(p. 524\)](#) request.
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the `ChangeToken` parameter of an [UpdateIPSet \(p. 725\)](#) request.
3. Submit an [UpdateIPSet](#) request to specify the IP addresses that you want AWS WAF to watch for.

When you update an [IPSet](#), you specify the IP addresses that you want to add and the IP addresses that you want to delete. If you want to change an IP address, delete the existing IP address and add the new one.

You can update a maximum of 1,000 addresses in a single request.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{
```

```
"ChangeToken": "string",
"IPSetId": "string",
"Updates": [
    {
        "Action": "string",
        "IPSetDescriptor": {
            "Type": "string",
            "Value": "string"
        }
    }
]
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 725\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\s.*

Required: Yes

[IPSetId \(p. 725\)](#)

The `IPSetId` of the [IPSet \(p. 1020\)](#) that you want to update. `IPSetId` is returned by [CreateIPSet \(p. 524\)](#) and by [ListIPSets \(p. 664\)](#).

Type: String

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

Pattern: .*\s.*

Required: Yes

[Updates \(p. 725\)](#)

An array of `IPSetUpdate` objects that you want to insert into or delete from an [IPSet \(p. 1020\)](#). For more information, see the applicable data types:

- [IPSetUpdate \(p. 1025\)](#): Contains `Action` and `IPSetDescriptor`
- [IPSetDescriptor \(p. 1022\)](#): Contains `Type` and `Value`

You can specify a maximum of 1,000 addresses in a single request, for example, in a single request you can insert 999 addresses and delete 1 address, but you can't insert 999 addresses and delete 2 addresses.

Type: Array of [IPSetUpdate \(p. 1025\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 727\)](#)

The `ChangeToken` that you used to submit the `UpdateIPSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

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

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a `Rule` from a `WebACL`, but the `Rule` isn't in the specified `WebACL`.
- You tried to remove an IP address from an `IPSet`, but the IP address isn't in the specified `IPSet`.
- You tried to remove a `ByteMatchTuple` from a `ByteMatchSet`, but the `ByteMatchTuple` isn't in the specified `WebACL`.
- You tried to add a `Rule` to a `WebACL`, but the `Rule` already exists in the specified `WebACL`.
- You tried to add a `ByteMatchTuple` to a `ByteMatchSet`, but the `ByteMatchTuple` already exists in the specified `WebACL`.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.

- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

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

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

UpdateRateBasedRule

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [Predicate \(p. 1028\)](#) objects in a rule and updates the `RateLimit` in the rule.

Each `Predicate` object identifies a predicate, such as a [ByteMatchSet \(p. 1000\)](#) or an [IPSet \(p. 1020\)](#), that specifies the web requests that you want to block or count. The `RateLimit` specifies the number of requests every five minutes that triggers the rule.

If you add more than one predicate to a `RateBasedRule`, a request must match all the predicates and exceed the `RateLimit` to be counted or blocked. For example, suppose you add the following to a `RateBasedRule`:

- An `IPSet` that matches the IP address `192.0.2.44/32`
- A `ByteMatchSet` that matches `BadBot` in the `User-Agent` header

Further, you specify a `RateLimit` of 1,000.

You then add the `RateBasedRule` to a `WebACL` and specify that you want to block requests that satisfy the rule. For a request to be blocked, it must come from the IP address `192.0.2.44` and the `User-Agent` header in the request must contain the value `BadBot`. Further, requests that match these two conditions must be received at a rate of more than 1,000 every five minutes. If the rate drops below this limit, AWS WAF no longer blocks the requests.

As a second example, suppose you want to limit requests to a particular page on your site. To do this, you could add the following to a `RateBasedRule`:

- A `ByteMatchSet` with `FieldToMatch` of `URI`
- A `PositionalConstraint` of `STARTS_WITH`
- A `TargetString` of `login`

Further, you specify a `RateLimit` of 1,000.

By adding this `RateBasedRule` to a `WebACL`, you could limit requests to your login page without affecting the rest of your site.

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RateLimit": number,  
    "RuleId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "Predicate": {  
                "DataId": "string",  
                "Negated": boolean,  
                "Type": "string"  
            }  
        }  
    ]  
}
```

```
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 730\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

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

Pattern: .*\\$.*

Required: Yes

[RateLimit \(p. 730\)](#)

The maximum number of requests, which have an identical value in the field specified by the RateKey, allowed in a five-minute period. If the number of requests exceeds the RateLimit and the other predicates specified in the rule are also met, AWS WAF triggers the action that is specified for this rule.

Type: Long

Valid Range: Minimum value of 100. Maximum value of 2000000000.

Required: Yes

[RuleId \(p. 730\)](#)

The RuleId of the RateBasedRule that you want to update. RuleId is returned by [CreateRateBasedRule](#) and by [ListRateBasedRules \(p. 670\)](#).

Type: String

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

Pattern: .*\\$.*

Required: Yes

[Updates \(p. 730\)](#)

An array of RuleUpdate objects that you want to insert into or delete from a RateBasedRule (p. 1030).

Type: Array of [RuleUpdate \(p. 1050\)](#) objects

Required: Yes

Response Syntax

```
{  
  "ChangeToken": "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.

ChangeToken (p. 731)

The `ChangeToken` that you used to submit the `UpdateRateBasedRule` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus](#) (p. 614).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 1085).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a `Rule` from a `WebACL`, but the `Rule` isn't in the specified `WebACL`.
- You tried to remove an IP address from an `IPSet`, but the IP address isn't in the specified `IPSet`.
- You tried to remove a `ByteMatchTuple` from a `ByteMatchSet`, but the `ByteMatchTuple` isn't in the specified `WebACL`.
- You tried to add a `Rule` to a `WebACL`, but the `Rule` already exists in the specified `WebACL`.
- You tried to add a `ByteMatchTuple` to a `ByteMatchSet`, but the `ByteMatchTuple` already exists in the specified `WebACL`.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.

- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a `Rule` to or delete a `Rule` from a `WebACL` that doesn't exist.
- You tried to add a `ByteMatchSet` to or delete a `ByteMatchSet` from a `Rule` that doesn't exist.
- You tried to add an IP address to or delete an IP address from an `IPSet` that doesn't exist.
- You tried to add a `ByteMatchTuple` to or delete a `ByteMatchTuple` from a `ByteMatchSet` that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateRegexMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [RegexMatchTuple \(p. 1036\)](#) objects (filters) in a [RegexMatchSet \(p. 1032\)](#). For each `RegexMatchSetUpdate` object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change a `RegexMatchSetUpdate` object, you delete the existing object and add a new one.
- The part of a web request that you want AWS WAF to inspectupdate, such as a query string or the value of the `User-Agent` header.
- The identifier of the pattern (a regular expression) that you want AWS WAF to look for. For more information, see [RegexPatternSet \(p. 1039\)](#).
- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

For example, you can create a `RegexPatternSet` that matches any requests with `User-Agent` headers that contain the string `B[a@]dB[o0]t`. You can then configure AWS WAF to reject those requests.

To create and configure a `RegexMatchSet`, perform the following steps:

1. Create a `RegexMatchSet`. For more information, see [CreateRegexMatchSet \(p. 532\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the `ChangeToken` parameter of an `UpdateRegexMatchSet` request.
3. Submit an `UpdateRegexMatchSet` request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the identifier of the `RegexPatternSet` that contain the regular expression patters you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RegexMatchSetId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "RegexMatchTuple": {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "RegexPatternSetId": "string",  
                "TextTransformation": "string"  
            }  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 735\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

[RegexMatchSetId \(p. 735\)](#)

The `RegexMatchSetId` of the [RegexMatchSet \(p. 1032\)](#) that you want to update. `RegexMatchSetId` is returned by [CreateRegexMatchSet \(p. 532\)](#) and by [ListRegexMatchSets \(p. 673\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

[Updates \(p. 735\)](#)

An array of `RegexMatchSetUpdate` objects that you want to insert into or delete from a [RegexMatchSet \(p. 1032\)](#). For more information, see [RegexMatchTuple \(p. 1036\)](#).

Type: Array of [RegexMatchSetUpdate \(p. 1035\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 736\)](#)

The `ChangeToken` that you used to submit the `UpdateRegexMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFNotAllowedNameException

The name specified is invalid.

HTTP Status Code: 400

WAFLimitsExceededException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateRegexPatternSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes RegexPatternString objects in a [RegexPatternSet \(p. 1039\)](#). For each RegexPatternString object, you specify the following values:

- Whether to insert or delete the RegexPatternString.
- The regular expression pattern that you want to insert or delete. For more information, see [RegexPatternSet \(p. 1039\)](#).

For example, you can create a RegexPatternString such as B[a@]dB[o0]t. AWS WAF will match this RegexPatternString to:

- BadBot
- BadB0t
- B@dBot
- B@dB0t

To create and configure a RegexPatternSet, perform the following steps:

1. Create a RegexPatternSet. For more information, see [CreateRegexPatternSet \(p. 535\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of an UpdateRegexPatternSet request.
3. Submit an UpdateRegexPatternSet request to specify the regular expression pattern that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RegexPatternSetId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "RegexPatternString": "string"  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 739\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\$.*`

Required: Yes

[RegexPatternSetId \(p. 739\)](#)

The `RegexPatternSetId` of the [RegexPatternSet \(p. 1039\)](#) that you want to update. `RegexPatternSetId` is returned by [CreateRegexPatternSet \(p. 535\)](#) and by [ListRegexPatternSets \(p. 676\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\$.*`

Required: Yes

[Updates \(p. 739\)](#)

An array of `RegexPatternSetUpdate` objects that you want to insert into or delete from a [RegexPatternSet \(p. 1039\)](#).

Type: Array of [RegexPatternSetUpdate \(p. 1042\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 740\)](#)

The `ChangeToken` that you used to submit the `UpdateRegexPatternSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFFInvalidRegexPatternException

The regular expression (regex) you specified in RegexPatternString is invalid.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateRule

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [Predicate \(p. 1028\)](#) objects in a Rule. Each Predicate object identifies a predicate, such as a [ByteMatchSet \(p. 1000\)](#) or an [IPSet \(p. 1020\)](#), that specifies the web requests that you want to allow, block, or count. If you add more than one predicate to a Rule, a request must match all of the specifications to be allowed, blocked, or counted. For example, suppose that you add the following to a Rule:

- A ByteMatchSet that matches the value BadBot in the User-Agent header
- An IPSet that matches the IP address 192.0.2.44

You then add the Rule to a WebACL and specify that you want to block requests that satisfy the Rule. For a request to be blocked, the User-Agent header in the request must contain the value BadBot *and* the request must originate from the IP address 192.0.2.44.

To create and configure a Rule, perform the following steps:

1. Create and update the predicates that you want to include in the Rule.
2. Create the Rule. See [CreateRule \(p. 538\)](#).
3. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateRule \(p. 743\)](#) request.
4. Submit an UpdateRule request to add predicates to the Rule.
5. Create and update a WebACL that contains the Rule. See [CreateWebACL \(p. 554\)](#).

If you want to replace one ByteMatchSet or IPSet with another, you delete the existing one and add the new one.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RuleId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "Predicate": {  
                "DataId": "string",  
                "Negated": boolean,  
                "Type": "string"  
            }  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 743\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

[RuleId \(p. 743\)](#)

The `RuleId` of the `Rule` that you want to update. `RuleId` is returned by `CreateRule` and by [ListRules \(p. 685\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

[Updates \(p. 743\)](#)

An array of `RuleUpdate` objects that you want to insert into or delete from a [Rule \(p. 1043\)](#). For more information, see the applicable data types:

- [RuleUpdate \(p. 1050\)](#): Contains `Action` and `Predicate`
- [Predicate \(p. 1028\)](#): Contains `DataId`, `Negated`, and `Type`
- [FieldToMatch \(p. 1009\)](#): Contains `Data` and `Type`

Type: Array of [RuleUpdate \(p. 1050\)](#) objects

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 744\)](#)

The `ChangeToken` that you used to submit the `UpdateRule` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\s.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceeded

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a ByteMatchSet that is still referenced by a Rule.
- You tried to delete a Rule that is still referenced by a WebACL.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateRuleGroup

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [ActivatedRule](#) (p. 997) objects in a RuleGroup.

You can only insert **REGULAR** rules into a rule group.

You can have a maximum of ten rules per rule group.

To create and configure a RuleGroup, perform the following steps:

1. Create and update the Rules that you want to include in the RuleGroup. See [CreateRule](#) (p. 538).
2. Use `GetChangeToken` to get the change token that you provide in the `ChangeToken` parameter of an [UpdateRuleGroup](#) (p. 747) request.
3. Submit an `UpdateRuleGroup` request to add Rules to the RuleGroup.
4. Create and update a WebACL that contains the RuleGroup. See [CreateWebACL](#) (p. 554).

If you want to replace one Rule with another, you delete the existing one and add the new one.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "RuleGroupId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "ActivatedRule": {  
                "Action": {  
                    "Type": "string"  
                },  
                "ExcludedRules": [  
                    {  
                        "RuleId": "string"  
                    }  
                ],  
                "OverrideAction": {  
                    "Type": "string"  
                },  
                "Priority": number,  
                "RuleId": "string",  
                "Type": "string"  
            }  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 747\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

[RuleGroupId \(p. 747\)](#)

The `RuleGroupId` of the [RuleGroup \(p. 1045\)](#) that you want to update. `RuleGroupId` is returned by [CreateRuleGroup \(p. 542\)](#) and by [ListRuleGroups \(p. 682\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

[Updates \(p. 747\)](#)

An array of `RuleGroupUpdate` objects that you want to insert into or delete from a [RuleGroup \(p. 1045\)](#).

You can only insert `REGULAR` rules into a rule group.

`ActivatedRule|OverrideAction` applies only when updating or adding a `RuleGroup` to a WebACL. In this case you do not use `ActivatedRule|Action`. For all other update requests, `ActivatedRule|Action` is used instead of `ActivatedRule|OverrideAction`.

Type: Array of [RuleGroupUpdate \(p. 1048\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 748\)](#)

The ChangeToken that you used to submit the UpdateRuleGroup request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFLInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFLInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateSizeConstraintSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [SizeConstraint \(p. 1053\)](#) objects (filters) in a [SizeConstraintSet \(p. 1056\)](#). For each `SizeConstraint` object, you specify the following values:

- Whether to insert or delete the object from the array. If you want to change a `SizeConstraintSetUpdate` object, you delete the existing object and add a new one.
- The part of a web request that you want AWS WAF to evaluate, such as the length of a query string or the length of the `User-Agent` header.
- Whether to perform any transformations on the request, such as converting it to lowercase, before checking its length. Note that transformations of the request body are not supported because the AWS resource forwards only the first 8192 bytes of your request to AWS WAF.

You can only specify a single type of `TextTransformation`.

- A `ComparisonOperator` used for evaluating the selected part of the request against the specified `Size`, such as equals, greater than, less than, and so on.
- The `length`, in bytes, that you want AWS WAF to watch for in selected part of the request. The `length` is computed after applying the transformation.

For example, you can add a `SizeConstraintSetUpdate` object that matches web requests in which the length of the `User-Agent` header is greater than 100 bytes. You can then configure AWS WAF to block those requests.

To create and configure a `SizeConstraintSet`, perform the following steps:

1. Create a `SizeConstraintSet`. For more information, see [CreateSizeConstraintSet \(p. 546\)](#).
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the `ChangeToken` parameter of an `UpdateSizeConstraintSet` request.
3. Submit an `UpdateSizeConstraintSet` request to specify the part of the request that you want AWS WAF to inspect (for example, the header or the URI path) and the value that you want AWS WAF to watch for.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "SizeConstraintSetId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "SizeConstraint": {  
                "ComparisonOperator": "string",  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "TextTransformation": "string"  
            }  
        }  
    ]  
}
```

```
        "Type": "string"
    },
    "Size": number,
    "TextTransformation": "string"
}
]
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 751\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

[SizeConstraintSetId \(p. 751\)](#)

The `SizeConstraintSetId` of the [SizeConstraintSet \(p. 1056\)](#) that you want to update. `SizeConstraintSetId` is returned by [CreateSizeConstraintSet \(p. 546\)](#) and by [ListSizeConstraintSets \(p. 688\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

[Updates \(p. 751\)](#)

An array of `SizeConstraintSetUpdate` objects that you want to insert into or delete from a [SizeConstraintSet \(p. 1056\)](#). For more information, see the applicable data types:

- [SizeConstraintSetUpdate \(p. 1059\)](#): Contains `Action` and `SizeConstraint`
- [SizeConstraint \(p. 1053\)](#): Contains `FieldToMatch`, `TextTransformation`, `ComparisonOperator`, and `Size`
- [FieldToMatch \(p. 1009\)](#): Contains `Data` and `Type`

Type: Array of [SizeConstraintSetUpdate \(p. 1059\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{
```

```
    "ChangeToken": "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.

ChangeToken (p. 752)

The ChangeToken that you used to submit the UpdateSizeConstraintSet request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFFinalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.

- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a `Rule` to or delete a `Rule` from a `WebACL` that doesn't exist.
- You tried to add a `ByteMatchSet` to or delete a `ByteMatchSet` from a `Rule` that doesn't exist.
- You tried to add an IP address to or delete an IP address from an `IPSet` that doesn't exist.
- You tried to add a `ByteMatchTuple` to or delete a `ByteMatchTuple` from a `ByteMatchSet` that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFReferencedItemException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateSqlInjectionMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [SqlInjectionMatchTuple \(p. 1064\)](#) objects (filters) in a [SqlInjectionMatchSet \(p. 1060\)](#). For each `SqlInjectionMatchTuple` object, you specify the following values:

- **Action**: Whether to insert the object into or delete the object from the array. To change a `SqlInjectionMatchTuple`, you delete the existing object and add a new one.
- **FieldToMatch**: The part of web requests that you want AWS WAF to inspect and, if you want AWS WAF to inspect a header or custom query parameter, the name of the header or parameter.
- **TextTransformation**: Which text transformation, if any, to perform on the web request before inspecting the request for snippets of malicious SQL code.

You can only specify a single type of `TextTransformation`.

You use `SqlInjectionMatchSet` objects to specify which Amazon CloudFront requests that you want to allow, block, or count. For example, if you're receiving requests that contain snippets of SQL code in the query string and you want to block the requests, you can create a `SqlInjectionMatchSet` with the applicable settings, and then configure AWS WAF to block the requests.

To create and configure a `SqlInjectionMatchSet`, perform the following steps:

1. Submit a [CreateSqlInjectionMatchSet \(p. 550\)](#) request.
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the `ChangeToken` parameter of an [UpdateIPSet \(p. 725\)](#) request.
3. Submit an `UpdateSqlInjectionMatchSet` request to specify the parts of web requests that you want AWS WAF to inspect for snippets of SQL code.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "SqlInjectionMatchSetId": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "SqlInjectionMatchTuple": {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "TextTransformation": "string"  
            }  
        }  
    ]  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 756\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

[SqlInjectionMatchSetId \(p. 756\)](#)

The `SqlInjectionMatchSetId` of the `SqlInjectionMatchSet` that you want to update. `SqlInjectionMatchSetId` is returned by [CreateSqlInjectionMatchSet \(p. 550\)](#) and by [ListSqlInjectionMatchSets \(p. 691\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

[Updates \(p. 756\)](#)

An array of `SqlInjectionMatchSetUpdate` objects that you want to insert into or delete from a [SqlInjectionMatchSet \(p. 1060\)](#). For more information, see the applicable data types:

- [SqlInjectionMatchSetUpdate \(p. 1063\)](#): Contains `Action` and `SqlInjectionMatchTuple`
- [SqlInjectionMatchTuple \(p. 1064\)](#): Contains `FieldToMatch` and `TextTransformation`
- [FieldToMatch \(p. 1009\)](#): Contains `Data` and `Type`

Type: Array of [SqlInjectionMatchSetUpdate \(p. 1063\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 757\)](#)

The `ChangeToken` that you used to submit the `UpdateSqlInjectionMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\$.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidOperationException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a `Rule` from a `WebACL`, but the `Rule` isn't in the specified `WebACL`.
- You tried to remove an IP address from an `IPSet`, but the IP address isn't in the specified `IPSet`.
- You tried to remove a `ByteMatchTuple` from a `ByteMatchSet`, but the `ByteMatchTuple` isn't in the specified `WebACL`.
- You tried to add a `Rule` to a `WebACL`, but the `Rule` already exists in the specified `WebACL`.
- You tried to add a `ByteMatchTuple` to a `ByteMatchSet`, but the `ByteMatchTuple` already exists in the specified `WebACL`.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.

- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a `Rule` to or delete a `Rule` from a `WebACL` that doesn't exist.
- You tried to add a `ByteMatchSet` to or delete a `ByteMatchSet` from a `Rule` that doesn't exist.
- You tried to add an IP address to or delete an IP address from an `IPSet` that doesn't exist.
- You tried to add a `ByteMatchTuple` to or delete a `ByteMatchTuple` from a `ByteMatchSet` that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateWebACL

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [ActivatedRule \(p. 997\)](#) objects in a WebACL. Each Rule identifies web requests that you want to allow, block, or count. When you update a WebACL, you specify the following values:

- A default action for the WebACL, either ALLOW or BLOCK. AWS WAF performs the default action if a request doesn't match the criteria in any of the Rules in a WebACL.
- The Rules that you want to add or delete. If you want to replace one Rule with another, you delete the existing Rule and add the new one.
- For each Rule, whether you want AWS WAF to allow requests, block requests, or count requests that match the conditions in the Rule.
- The order in which you want AWS WAF to evaluate the Rules in a WebACL. If you add more than one Rule to a WebACL, AWS WAF evaluates each request against the Rules in order based on the value of Priority. (The Rule that has the lowest value for Priority is evaluated first.) When a web request matches all the predicates (such as ByteMatchSets and IPSets) in a Rule, AWS WAF immediately takes the corresponding action, allow or block, and doesn't evaluate the request against the remaining Rules in the WebACL, if any.

To create and configure a WebACL, perform the following steps:

1. Create and update the predicates that you want to include in Rules. For more information, see [CreateByteMatchSet \(p. 516\)](#), [UpdateByteMatchSet \(p. 717\)](#), [CreateIPSet \(p. 524\)](#), [UpdateIPSet \(p. 725\)](#), [CreateSqlInjectionMatchSet \(p. 550\)](#), and [UpdateSqlInjectionMatchSet \(p. 756\)](#).
2. Create and update the Rules that you want to include in the WebACL. For more information, see [CreateRule \(p. 538\)](#) and [UpdateRule \(p. 743\)](#).
3. Create a WebACL. See [CreateWebACL \(p. 554\)](#).
4. Use GetChangeToken to get the change token that you provide in the ChangeToken parameter of an [UpdateWebACL \(p. 760\)](#) request.
5. Submit an [UpdateWebACL](#) request to specify the Rules that you want to include in the WebACL, to specify the default action, and to associate the WebACL with an Amazon CloudFront distribution.

The ActivatedRule can be a rule group. If you specify a rule group as your ActivatedRule, you can exclude specific rules from that rule group.

If you already have a rule group associated with a web ACL and want to submit an [UpdateWebACL](#) request to exclude certain rules from that rule group, you must first remove the rule group from the web ACL, then re-insert it again, specifying the excluded rules. For details, see [ActivatedRule:ExcludedRules \(p. 997\)](#).

Be aware that if you try to add a RATE_BASED rule to a web ACL without setting the rule type when first creating the rule, the [UpdateWebACL \(p. 760\)](#) request will fail because the request tries to add a REGULAR rule (the default rule type) with the specified ID, which does not exist.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "DefaultAction": {  
        "Type": "string"  
    },  
    "Updates": [  
        {  
            "Action": "string",  
            "ActivatedRule": {  
                "Action": {  
                    "Type": "string"  
                },  
                "ExcludedRules": [  
                    {  
                        "RuleId": "string"  
                    }  
                ],  
                "OverrideAction": {  
                    "Type": "string"  
                },  
                "Priority": number,  
                "RuleId": "string",  
                "Type": "string"  
            }  
        }  
    ],  
    "WebACLId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 761\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

[DefaultAction \(p. 761\)](#)

Type: [WafAction \(p. 1071\)](#) object

Required: No

[Updates \(p. 761\)](#)

An array of updates to make to the [WebACL \(p. 1073\)](#).

An array of [WebACLUpdate](#) objects that you want to insert into or delete from a [WebACL \(p. 1073\)](#). For more information, see the applicable data types:

- [WebACLUpdate \(p. 1076\)](#): Contains Action and ActivatedRule
- [ActivatedRule \(p. 997\)](#): Contains Action, OverrideAction, Priority, RuleId, and Type. ActivatedRule|OverrideAction applies only when updating or adding a RuleGroup to a WebACL. In this case, you do not use ActivatedRule|Action. For all other update requests, ActivatedRule|Action is used instead of ActivatedRule|OverrideAction.
- [WafAction \(p. 1071\)](#): Contains Type

Type: Array of [WebACLUpdate \(p. 1076\)](#) objects

Required: No

[WebACLId \(p. 761\)](#)

The [WebACLId](#) of the [WebACL \(p. 1073\)](#) that you want to update. WebACLId is returned by [CreateWebACL \(p. 554\)](#) and by [ListWebACLs \(p. 700\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 762\)](#)

The ChangeToken that you used to submit the UpdateWebACL request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

[WAFFInternalErrorException](#)

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a Rule from a WebACL, but the Rule isn't in the specified WebACL.
- You tried to remove an IP address from an IPSet, but the IP address isn't in the specified IPSet.
- You tried to remove a ByteMatchTuple from a ByteMatchSet, but the ByteMatchTuple isn't in the specified WebACL.
- You tried to add a Rule to a WebACL, but the Rule already exists in the specified WebACL.
- You tried to add a ByteMatchTuple to a ByteMatchSet, but the ByteMatchTuple already exists in the specified WebACL.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (ByteMatchSet, IPSet, Rule, or WebACL) using an action other than INSERT or DELETE.
- You tried to create a WebACL with a DefaultAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to create a RateBasedRule with a RateKey value other than IP.
- You tried to update a WebACL with a WafAction Type other than ALLOW, BLOCK, or COUNT.
- You tried to update a ByteMatchSet with a FieldToMatch Type other than HEADER, METHOD, QUERY_STRING, URI, or BODY.
- You tried to update a ByteMatchSet with a Field of HEADER but no value for Data.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of WebACL objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the [AWS WAF Developer Guide](#).

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a Rule to or delete a Rule from a WebACL that doesn't exist.
- You tried to add a ByteMatchSet to or delete a ByteMatchSet from a Rule that doesn't exist.
- You tried to add an IP address to or delete an IP address from an IPSet that doesn't exist.
- You tried to add a ByteMatchTuple to or delete a ByteMatchTuple from a ByteMatchSet that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFAccessDeniedException

The operation failed because you tried to delete an object that is still in use. For example:

- You tried to delete a `ByteMatchSet` that is still referenced by a `Rule`.
- You tried to delete a `Rule` that is still referenced by a `WebACL`.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

WAFFailedDependencyException

The specified subscription does not exist.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

UpdateXssMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Inserts or deletes [XssMatchTuple \(p. 1081\)](#) objects (filters) in an [XssMatchSet \(p. 1077\)](#). For each XssMatchTuple object, you specify the following values:

- **Action:** Whether to insert the object into or delete the object from the array. To change an XssMatchTuple, you delete the existing object and add a new one.
- **FieldToMatch:** The part of web requests that you want AWS WAF to inspect and, if you want AWS WAF to inspect a header or custom query parameter, the name of the header or parameter.
- **TextTransformation:** Which text transformation, if any, to perform on the web request before inspecting the request for cross-site scripting attacks.

You can only specify a single type of TextTransformation.

You use XssMatchSet objects to specify which Amazon CloudFront requests that you want to allow, block, or count. For example, if you're receiving requests that contain cross-site scripting attacks in the request body and you want to block the requests, you can create an XssMatchSet with the applicable settings, and then configure AWS WAF to block the requests.

To create and configure an XssMatchSet, perform the following steps:

1. Submit a [CreateXssMatchSet \(p. 563\)](#) request.
2. Use [GetChangeToken \(p. 612\)](#) to get the change token that you provide in the ChangeToken parameter of an [UpdateIPSet \(p. 725\)](#) request.
3. Submit an [UpdateXssMatchSet](#) request to specify the parts of web requests that you want AWS WAF to inspect for cross-site scripting attacks.

For more information about how to use the AWS WAF API to allow or block HTTP requests, see the [AWS WAF Developer Guide](#).

Request Syntax

```
{  
    "ChangeToken": "string",  
    "Updates": [  
        {  
            "Action": "string",  
            "XssMatchTuple": {  
                "FieldToMatch": {  
                    "Data": "string",  
                    "Type": "string"  
                },  
                "TextTransformation": "string"  
            }  
        }  
    ],  
    "XssMatchSetId": "string"  
}
```

Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 1083\)](#).

The request accepts the following data in JSON format.

[ChangeToken \(p. 765\)](#)

The value returned by the most recent call to [GetChangeToken \(p. 612\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

[Updates \(p. 765\)](#)

An array of `XssMatchSetUpdate` objects that you want to insert into or delete from an [XssMatchSet \(p. 1077\)](#). For more information, see the applicable data types:

- [XssMatchSetUpdate \(p. 1080\)](#): Contains `Action` and `XssMatchTuple`
- [XssMatchTuple \(p. 1081\)](#): Contains `FieldToMatch` and `TextTransformation`
- [FieldToMatch \(p. 1009\)](#): Contains `Data` and `Type`

Type: Array of [XssMatchSetUpdate \(p. 1080\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

[XssMatchSetId \(p. 765\)](#)

The `XssMatchSetId` of the `XssMatchSet` that you want to update. `XssMatchSetId` is returned by [CreateXssMatchSet \(p. 563\)](#) and by [ListXssMatchSets \(p. 703\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

Response Syntax

```
{  
    "ChangeToken": "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.

[ChangeToken \(p. 766\)](#)

The `ChangeToken` that you used to submit the `UpdateXssMatchSet` request. You can also use this value to query the status of the request. For more information, see [GetChangeTokenStatus \(p. 614\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 1085\)](#).

WAFInternalErrorException

The operation failed because of a system problem, even though the request was valid. Retry your request.

HTTP Status Code: 500

WAFInvalidAccountException

The operation failed because you tried to create, update, or delete an object by using an invalid account identifier.

HTTP Status Code: 400

WAFInvalidOperationException

The operation failed because there was nothing to do. For example:

- You tried to remove a `Rule` from a `WebACL`, but the `Rule` isn't in the specified `WebACL`.
- You tried to remove an IP address from an `IPSet`, but the IP address isn't in the specified `IPSet`.
- You tried to remove a `ByteMatchTuple` from a `ByteMatchSet`, but the `ByteMatchTuple` isn't in the specified `WebACL`.
- You tried to add a `Rule` to a `WebACL`, but the `Rule` already exists in the specified `WebACL`.
- You tried to add a `ByteMatchTuple` to a `ByteMatchSet`, but the `ByteMatchTuple` already exists in the specified `WebACL`.

HTTP Status Code: 400

WAFInvalidParameterException

The operation failed because AWS WAF didn't recognize a parameter in the request. For example:

- You specified an invalid parameter name.
- You specified an invalid value.
- You tried to update an object (`ByteMatchSet`, `IPSet`, `Rule`, or `WebACL`) using an action other than `INSERT` or `DELETE`.
- You tried to create a `WebACL` with a `DefaultAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to create a `RateBasedRule` with a `RateKey` value other than `IP`.
- You tried to update a `WebACL` with a `WafAction` Type other than `ALLOW`, `BLOCK`, or `COUNT`.
- You tried to update a `ByteMatchSet` with a `FieldToMatch` Type other than `HEADER`, `METHOD`, `QUERY_STRING`, `URI`, or `BODY`.
- You tried to update a `ByteMatchSet` with a `Field` of `HEADER` but no value for `Data`.
- Your request references an ARN that is malformed, or corresponds to a resource with which a web ACL cannot be associated.

HTTP Status Code: 400

WAFLimitsExceededException

The operation exceeds a resource limit, for example, the maximum number of `WebACL` objects that you can create for an AWS account. For more information, see [AWS WAF Classic quotas](#) in the *AWS WAF Developer Guide*.

HTTP Status Code: 400

WAFNonexistentContainerException

The operation failed because you tried to add an object to or delete an object from another object that doesn't exist. For example:

- You tried to add a `Rule` to or delete a `Rule` from a `WebACL` that doesn't exist.
- You tried to add a `ByteMatchSet` to or delete a `ByteMatchSet` from a `Rule` that doesn't exist.
- You tried to add an IP address to or delete an IP address from an `IPSet` that doesn't exist.
- You tried to add a `ByteMatchTuple` to or delete a `ByteMatchTuple` from a `ByteMatchSet` that doesn't exist.

HTTP Status Code: 400

WAFNonexistentItemException

The operation failed because the referenced object doesn't exist.

HTTP Status Code: 400

WAFStaleDataException

The operation failed because you tried to create, update, or delete an object by using a change token that has already been used.

HTTP Status Code: 400

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

Data Types

The following data types are supported by AWS WAFV2:

- [ActionCondition \(p. 776\)](#)
- [All \(p. 777\)](#)
- [AllowAction \(p. 778\)](#)
- [AllQueryArguments \(p. 779\)](#)
- [AndStatement \(p. 780\)](#)
- [BlockAction \(p. 781\)](#)
- [Body \(p. 782\)](#)
- [ByteMatchStatement \(p. 783\)](#)
- [CaptchaAction \(p. 785\)](#)
- [CaptchaConfig \(p. 786\)](#)
- [CaptchaResponse \(p. 787\)](#)
- [Condition \(p. 788\)](#)
- [CookieMatchPattern \(p. 789\)](#)
- [Cookies \(p. 790\)](#)
- [CountAction \(p. 792\)](#)
- [CustomHTTPHeader \(p. 793\)](#)
- [CustomRequestHandling \(p. 794\)](#)
- [CustomResponse \(p. 795\)](#)
- [CustomResponseBody \(p. 797\)](#)
- [DefaultAction \(p. 798\)](#)
- [ExcludedRule \(p. 799\)](#)
- [FieldToMatch \(p. 800\)](#)
- [Filter \(p. 803\)](#)
- [FirewallManagerRuleGroup \(p. 804\)](#)
- [FirewallManagerStatement \(p. 806\)](#)
- [ForwardedIPConfig \(p. 807\)](#)
- [GeoMatchStatement \(p. 809\)](#)
- [HeaderMatchPattern \(p. 811\)](#)
- [Headers \(p. 812\)](#)
- [HTTPHeader \(p. 814\)](#)
- [HTTPRequest \(p. 815\)](#)
- [ImmunityTimeProperty \(p. 817\)](#)
- [IPSet \(p. 818\)](#)
- [IPSetForwardedIPConfig \(p. 820\)](#)
- [IPSetReferenceStatement \(p. 822\)](#)
- [IPSetSummary \(p. 823\)](#)
- [JsonBody \(p. 825\)](#)
- [JsonMatchPattern \(p. 827\)](#)
- [Label \(p. 828\)](#)
- [LabelMatchStatement \(p. 829\)](#)

- [LabelNameCondition \(p. 830\)](#)
- [LabelSummary \(p. 831\)](#)
- [LoggingConfiguration \(p. 832\)](#)
- [LoggingFilter \(p. 834\)](#)
- [ManagedRuleGroupConfig \(p. 835\)](#)
- [ManagedRuleGroupStatement \(p. 837\)](#)
- [ManagedRuleGroupSummary \(p. 839\)](#)
- [ManagedRuleGroupVersion \(p. 841\)](#)
- [ManagedRuleSet \(p. 842\)](#)
- [ManagedRuleSetSummary \(p. 845\)](#)
- [ManagedRuleSetVersion \(p. 847\)](#)
- [Method \(p. 849\)](#)
- [MobileSdkRelease \(p. 850\)](#)
- [NoneAction \(p. 851\)](#)
- [NotStatement \(p. 852\)](#)
- [OrStatement \(p. 853\)](#)
- [OverrideAction \(p. 854\)](#)
- [PasswordField \(p. 855\)](#)
- [QueryString \(p. 856\)](#)
- [RateBasedStatement \(p. 857\)](#)
- [RateBasedStatementManagedKeysIPSet \(p. 859\)](#)
- [Regex \(p. 860\)](#)
- [RegexMatchStatement \(p. 861\)](#)
- [RegexPatternSet \(p. 862\)](#)
- [RegexPatternSetReferenceStatement \(p. 864\)](#)
- [RegexPatternSetSummary \(p. 865\)](#)
- [ReleaseSummary \(p. 867\)](#)
- [Rule \(p. 868\)](#)
- [RuleAction \(p. 871\)](#)
- [RuleGroup \(p. 872\)](#)
- [RuleGroupReferenceStatement \(p. 875\)](#)
- [RuleGroupSummary \(p. 876\)](#)
- [RuleSummary \(p. 878\)](#)
- [SampledHTTPRequest \(p. 879\)](#)
- [SingleHeader \(p. 881\)](#)
- [SingleQueryArgument \(p. 882\)](#)
- [SizeConstraintStatement \(p. 883\)](#)
- [SqlMatchStatement \(p. 885\)](#)
- [Statement \(p. 886\)](#)
- [Tag \(p. 890\)](#)
- [TagInfoForResource \(p. 891\)](#)
- [TextTransformation \(p. 892\)](#)
- [TimeWindow \(p. 895\)](#)
- [UriPath \(p. 896\)](#)
- [UsernameField \(p. 897\)](#)
- [VersionToPublish \(p. 898\)](#)

- [VisibilityConfig \(p. 899\)](#)
- [WebACL \(p. 900\)](#)
- [WebACLSummary \(p. 904\)](#)
- [XssMatchStatement \(p. 906\)](#)

The following data types are supported by AWS WAF Classic:

- [ActivatedRule \(p. 909\)](#)
- [ByteMatchSet \(p. 912\)](#)
- [ByteMatchSetSummary \(p. 914\)](#)
- [ByteMatchSetUpdate \(p. 915\)](#)
- [ByteMatchTuple \(p. 916\)](#)
- [ExcludedRule \(p. 920\)](#)
- [FieldToMatch \(p. 921\)](#)
- [GeoMatchConstraint \(p. 923\)](#)
- [GeoMatchSet \(p. 925\)](#)
- [GeoMatchSetSummary \(p. 927\)](#)
- [GeoMatchSetUpdate \(p. 928\)](#)
- [HTTPHeader \(p. 929\)](#)
- [HTTPRequest \(p. 930\)](#)
- [IPSet \(p. 932\)](#)
- [IPSetDescriptor \(p. 934\)](#)
- [IPSetSummary \(p. 936\)](#)
- [IPSetUpdate \(p. 937\)](#)
- [LoggingConfiguration \(p. 938\)](#)
- [Predicate \(p. 940\)](#)
- [RateBasedRule \(p. 942\)](#)
- [RegexMatchSet \(p. 944\)](#)
- [RegexMatchSetSummary \(p. 946\)](#)
- [RegexMatchSetUpdate \(p. 947\)](#)
- [RegexMatchTuple \(p. 948\)](#)
- [RegexPatternSet \(p. 951\)](#)
- [RegexPatternSetSummary \(p. 953\)](#)
- [RegexPatternSetUpdate \(p. 954\)](#)
- [Rule \(p. 955\)](#)
- [RuleGroup \(p. 957\)](#)
- [RuleGroupSummary \(p. 959\)](#)
- [RuleGroupUpdate \(p. 960\)](#)
- [RuleSummary \(p. 961\)](#)
- [RuleUpdate \(p. 962\)](#)
- [SampledHTTPRequest \(p. 963\)](#)
- [SizeConstraint \(p. 965\)](#)
- [SizeConstraintSet \(p. 968\)](#)
- [SizeConstraintSetSummary \(p. 970\)](#)
- [SizeConstraintSetUpdate \(p. 971\)](#)
- [SqlInjectionMatchSet \(p. 972\)](#)

- [SqlInjectionMatchSetSummary \(p. 974\)](#)
- [SqlInjectionMatchSetUpdate \(p. 975\)](#)
- [SqlInjectionMatchTuple \(p. 976\)](#)
- [SubscribedRuleGroupSummary \(p. 978\)](#)
- [Tag \(p. 980\)](#)
- [TagInfoForResource \(p. 981\)](#)
- [TimeWindow \(p. 982\)](#)
- [WafAction \(p. 983\)](#)
- [WafOverrideAction \(p. 984\)](#)
- [WebACL \(p. 985\)](#)
- [WebACLSummary \(p. 987\)](#)
- [WebACLUpdate \(p. 988\)](#)
- [XssMatchSet \(p. 989\)](#)
- [XssMatchSetSummary \(p. 991\)](#)
- [XssMatchSetUpdate \(p. 992\)](#)
- [XssMatchTuple \(p. 993\)](#)

The following data types are supported by AWS WAF Classic Regional:

- [ActivatedRule \(p. 997\)](#)
- [ByteMatchSet \(p. 1000\)](#)
- [ByteMatchSetSummary \(p. 1002\)](#)
- [ByteMatchSetUpdate \(p. 1003\)](#)
- [ByteMatchTuple \(p. 1004\)](#)
- [ExcludedRule \(p. 1008\)](#)
- [FieldToMatch \(p. 1009\)](#)
- [GeoMatchConstraint \(p. 1011\)](#)
- [GeoMatchSet \(p. 1013\)](#)
- [GeoMatchSetSummary \(p. 1015\)](#)
- [GeoMatchSetUpdate \(p. 1016\)](#)
- [HTTPHeader \(p. 1017\)](#)
- [HTTPRequest \(p. 1018\)](#)
- [IPSet \(p. 1020\)](#)
- [IPSetDescriptor \(p. 1022\)](#)
- [IPSetSummary \(p. 1024\)](#)
- [IPSetUpdate \(p. 1025\)](#)
- [LoggingConfiguration \(p. 1026\)](#)
- [Predicate \(p. 1028\)](#)
- [RateBasedRule \(p. 1030\)](#)
- [RegexMatchSet \(p. 1032\)](#)
- [RegexMatchSetSummary \(p. 1034\)](#)
- [RegexMatchSetUpdate \(p. 1035\)](#)
- [RegexMatchTuple \(p. 1036\)](#)
- [RegexPatternSet \(p. 1039\)](#)
- [RegexPatternSetSummary \(p. 1041\)](#)
- [RegexPatternSetUpdate \(p. 1042\)](#)

- [Rule \(p. 1043\)](#)
- [RuleGroup \(p. 1045\)](#)
- [RuleGroupSummary \(p. 1047\)](#)
- [RuleGroupUpdate \(p. 1048\)](#)
- [RuleSummary \(p. 1049\)](#)
- [RuleUpdate \(p. 1050\)](#)
- [SampledHTTPRequest \(p. 1051\)](#)
- [SizeConstraint \(p. 1053\)](#)
- [SizeConstraintSet \(p. 1056\)](#)
- [SizeConstraintSetSummary \(p. 1058\)](#)
- [SizeConstraintSetUpdate \(p. 1059\)](#)
- [SqlInjectionMatchSet \(p. 1060\)](#)
- [SqlInjectionMatchSetSummary \(p. 1062\)](#)
- [SqlInjectionMatchSetUpdate \(p. 1063\)](#)
- [SqlInjectionMatchTuple \(p. 1064\)](#)
- [SubscribedRuleGroupSummary \(p. 1066\)](#)
- [Tag \(p. 1068\)](#)
- [TagInfoForResource \(p. 1069\)](#)
- [TimeWindow \(p. 1070\)](#)
- [WafAction \(p. 1071\)](#)
- [WafOverrideAction \(p. 1072\)](#)
- [WebACL \(p. 1073\)](#)
- [WebACLSummary \(p. 1075\)](#)
- [WebACLUpdate \(p. 1076\)](#)
- [XssMatchSet \(p. 1077\)](#)
- [XssMatchSetSummary \(p. 1079\)](#)
- [XssMatchSetUpdate \(p. 1080\)](#)
- [XssMatchTuple \(p. 1081\)](#)

AWS WAFV2

The following data types are supported by AWS WAFV2:

- [ActionCondition \(p. 776\)](#)
- [All \(p. 777\)](#)
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- [NoneAction \(p. 851\)](#)
- [NotStatement \(p. 852\)](#)
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ActionCondition

Service: AWS WAFV2

A single action condition for a [Condition \(p. 788\)](#) in a logging filter.

Contents

Action

The action setting that a log record must contain in order to meet the condition.

Type: String

Valid Values: ALLOW | BLOCK | COUNT | CAPTCHA | EXCLUDED_AS_COUNT

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

All

Service: AWS WAFV2

Inspect all of the elements that AWS WAF has parsed and extracted from the web request component that you've identified in your [FieldToMatch \(p. 800\)](#) specifications.

This is used only in the [FieldToMatch \(p. 800\)](#) specification for some web request component types.

JSON specification: "All": {}

Contents

The members of this 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AllowAction

Service: AWS WAFV2

Specifies that AWS WAF should allow the request and optionally defines additional custom handling for the request.

This is used in the context of other settings, for example to specify values for [RuleAction \(p. 871\)](#) and web ACL [DefaultAction \(p. 798\)](#).

Contents

CustomRequestHandling

Defines custom handling for the web request.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](#) in the [AWS WAF Developer Guide](#).

Type: [CustomRequestHandling \(p. 794\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AllQueryArguments

Service: AWS WAFV2

Inspect all query arguments of the web request.

This is used only in the [FieldToMatch \(p. 800\)](#) specification for some web request component types.

JSON specification: "AllQueryArguments": {}

Contents

The members of this 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AndStatement

Service: AWS WAFV2

A logical rule statement used to combine other rule statements with AND logic. You provide more than one [Statement \(p. 886\)](#) within the `AndStatement`.

Contents

Statements

The statements to combine with AND logic. You can use any statements that can be nested.

Type: Array of [Statement \(p. 886\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

BlockAction

Service: AWS WAFV2

Specifies that AWS WAF should block the request and optionally defines additional custom handling for the response to the web request.

This is used in the context of other settings, for example to specify values for [RuleAction \(p. 871\)](#) and web ACL [DefaultAction \(p. 798\)](#).

Contents

CustomResponse

Defines a custom response for the web request.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](#) in the [AWS WAF Developer Guide](#).

Type: [CustomResponse \(p. 795\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Body

Service: AWS WAFV2

Inspect the body of the web request. The body immediately follows the request headers.

This is used to indicate the web request component to inspect, in the [FieldToMatch \(p. 800\)](#) specification.

Contents

OversizeHandling

What AWS WAF should do if the body is larger than AWS WAF can inspect. AWS WAF does not support inspecting the entire contents of the body of a web request when the body exceeds 8 KB (8192 bytes). Only the first 8 KB of the request body are forwarded to AWS WAF by the underlying host service.

The options for oversize handling are the following:

- `CONTINUE` - Inspect the body normally, according to the rule inspection criteria.
- `MATCH` - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
- `NO_MATCH` - Treat the web request as not matching the rule statement.

You can combine the `MATCH` or `NO_MATCH` settings for oversize handling with your rule and web ACL action settings, so that you block any request whose body is over 8 KB.

Default: `CONTINUE`

Type: String

Valid Values: `CONTINUE` | `MATCH` | `NO_MATCH`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ByteMatchStatement

Service: AWS WAFV2

A rule statement that defines a string match search for AWS WAF to apply to web requests. The byte match statement provides the bytes to search for, the location in requests that you want AWS WAF to search, and other settings. The bytes to search for are typically a string that corresponds with ASCII characters. In the AWS WAF console and the developer guide, this is called a string match statement.

Contents

FieldToMatch

The part of the web request that you want AWS WAF to inspect.

Type: [FieldToMatch \(p. 800\)](#) object

Required: Yes

PositionalConstraint

The area within the portion of the web request that you want AWS WAF to search for `SearchString`. Valid values include the following:

CONTAINS

The specified part of the web request must include the value of `SearchString`, but the location doesn't matter.

CONTAINS_WORD

The specified part of the web request must include the value of `SearchString`, and `SearchString` must contain only alphanumeric characters or underscore (A-Z, a-z, 0-9, or `_`). In addition, `SearchString` must be a word, which means that both of the following are true:

- `SearchString` is at the beginning of the specified part of the web request or is preceded by a character other than an alphanumeric character or underscore (`_`). Examples include the value of a header and `;BadBot`.
- `SearchString` is at the end of the specified part of the web request or is followed by a character other than an alphanumeric character or underscore (`_`), for example, `BadBot;` and `-BadBot;.`

EXACTLY

The value of the specified part of the web request must exactly match the value of `SearchString`.

STARTS_WITH

The value of `SearchString` must appear at the beginning of the specified part of the web request.

ENDS_WITH

The value of `SearchString` must appear at the end of the specified part of the web request.

Type: String

Valid Values: EXACTLY | STARTS_WITH | ENDS_WITH | CONTAINS | CONTAINS_WORD

Required: Yes

SearchString

A string value that you want AWS WAF to search for. AWS WAF searches only in the part of web requests that you designate for inspection in [FieldToMatch \(p. 800\)](#). The maximum length of the value is 50 bytes.

Valid values depend on the component that you specify for inspection in `FieldToMatch`:

- **Method:** The HTTP method that you want AWS WAF to search for. This indicates the type of operation specified in the request.
- **UriPath:** The value that you want AWS WAF to search for in the URI path, for example, `/images/daily-ad.jpg`.

If `SearchString` includes alphabetic characters A-Z and a-z, note that the value is case sensitive.

If you're using the AWS WAF API

Specify a base64-encoded version of the value. The maximum length of the value before you base64-encode it is 50 bytes.

For example, suppose the value of `Type` is `HEADER` and the value of `Data` is `User-Agent`. If you want to search the `User-Agent` header for the value `BadBot`, you base64-encode `BadBot` using MIME base64-encoding and include the resulting value, `QmFkQm90`, in the value of `SearchString`.

If you're using the AWS CLI or one of the AWS SDKs

The value that you want AWS WAF to search for. The SDK automatically base64 encodes the value.

Type: Base64-encoded binary data object

Required: Yes

TextTransformations

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. If you specify one or more transformations in a rule statement, AWS WAF performs all transformations on the content of the request component identified by `FieldToMatch`, starting from the lowest priority setting, before inspecting the content for a match.

Type: Array of [TextTransformation \(p. 892\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CaptchaAction

Service: AWS WAFV2

Specifies that AWS WAF should run a CAPTCHA check against the request:

- If the request includes a valid, unexpired CAPTCHA token, AWS WAF allows the web request inspection to proceed to the next rule, similar to a CountAction.
- If the request doesn't include a valid, unexpired CAPTCHA token, AWS WAF discontinues the web ACL evaluation of the request and blocks it from going to its intended destination.

AWS WAF generates a response that it sends back to the client, which includes the following:

- The header `x-amzn-waf-action` with a value of `captcha`.
- The HTTP status code `405 Method Not Allowed`.
- If the request contains an `Accept` header with a value of `text/html`, the response includes a CAPTCHA challenge.

You can configure the expiration time in the `CaptchaConfig ImmunityTimeProperty` setting at the rule and web ACL level. The rule setting overrides the web ACL setting.

This action option is available for rules. It isn't available for web ACL default actions.

Contents

CustomRequestHandling

Defines custom handling for the web request.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](#) in the [AWS WAF Developer Guide](#).

Type: [CustomRequestHandling \(p. 794\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CaptchaConfig

Service: AWS WAFV2

Specifies how AWS WAF should handle CAPTCHA evaluations. This is available at the web ACL level and in each rule.

Contents

ImmunityTimeProperty

Determines how long a CAPTCHA token remains valid after the client successfully solves a CAPTCHA puzzle.

Type: [ImmunityTimeProperty \(p. 817\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CaptchaResponse

Service: AWS WAFV2

The result from the inspection of the web request for a valid CAPTCHA token.

Contents

FailureReason

The reason for failure, populated when the evaluation of the token fails.

Type: String

Valid Values: TOKEN_MISSING | TOKEN_EXPIRED

Required: No

ResponseCode

The HTTP response code indicating the status of the CAPTCHA token in the web request. If the token is missing, invalid, or expired, this code is 405 Method Not Allowed.

Type: Integer

Required: No

SolveTimestamp

The time that the CAPTCHA puzzle was solved for the supplied token.

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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Condition

Service: AWS WAFV2

A single match condition for a [Filter \(p. 803\)](#).

Contents

ActionCondition

A single action condition. This is the action setting that a log record must contain in order to meet the condition.

Type: [ActionCondition \(p. 776\)](#) object

Required: No

LabelNameCondition

A single label name condition. This is the fully qualified label name that a log record must contain in order to meet the condition. Fully qualified labels have a prefix, optional namespaces, and label name. The prefix identifies the rule group or web ACL context of the rule that added the label.

Type: [LabelNameCondition \(p. 830\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CookieMatchPattern

Service: AWS WAFV2

The filter to use to identify the subset of cookies to inspect in a web request.

You must specify exactly one setting: either `All`, `IncludedCookies`, or `ExcludedCookies`.

Example JSON: `"MatchPattern": { "IncludedCookies": { "KeyToInclude1", "KeyToInclude2", "KeyToInclude3" } }`

Contents

All

Inspect all cookies.

Type: [All \(p. 777\)](#) object

Required: No

ExcludedCookies

Inspect only the cookies whose keys don't match any of the strings specified here.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 199 items.

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `.*\$.*`

Required: No

IncludedCookies

Inspect only the cookies that have a key that matches one of the strings specified here.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 199 items.

Length Constraints: Minimum length of 1. Maximum length of 60.

Pattern: `.*\$.*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Cookies

Service: AWS WAFV2

Inspect the cookies in the web request. You can specify the parts of the cookies to inspect and you can narrow the set of cookies to inspect by including or excluding specific keys.

This is used to indicate the web request component to inspect, in the [FieldToMatch \(p. 800\)](#) specification.

Example JSON: "Cookies": { "MatchPattern": { "All": {} }, "MatchScope": "KEY", "OversizeHandling": "MATCH" }

Contents

MatchPattern

The filter to use to identify the subset of cookies to inspect in a web request.

You must specify exactly one setting: either All, IncludedCookies, or ExcludedCookies.

Example JSON: "MatchPattern": { "IncludedCookies": {"KeyToInclude1", "KeyToInclude2", "KeyToInclude3"} }

Type: [CookieMatchPattern \(p. 789\)](#) object

Required: Yes

MatchScope

The parts of the cookies to inspect with the rule inspection criteria. If you specify All, AWS WAF inspects both keys and values.

Type: String

Valid Values: ALL | KEY | VALUE

Required: Yes

OversizeHandling

What AWS WAF should do if the cookies of the request are larger than AWS WAF can inspect. AWS WAF does not support inspecting the entire contents of request cookies when they exceed 8 KB (8192 bytes) or 200 total cookies. The underlying host service forwards a maximum of 200 cookies and at most 8 KB of cookie contents to AWS WAF.

The options for oversize handling are the following:

- CONTINUE - Inspect the cookies normally, according to the rule inspection criteria.
- MATCH - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
- NO_MATCH - Treat the web request as not matching the rule statement.

Type: String

Valid Values: CONTINUE | MATCH | NO_MATCH

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CountAction

Service: AWS WAFV2

Specifies that AWS WAF should count the request. Optionally defines additional custom handling for the request.

This is used in the context of other settings, for example to specify values for [RuleAction \(p. 871\)](#) and web ACL [DefaultAction \(p. 798\)](#).

Contents

CustomRequestHandling

Defines custom handling for the web request.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](#) in the [AWS WAF Developer Guide](#).

Type: [CustomRequestHandling \(p. 794\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CustomHTTPHeader

Service: AWS WAFV2

A custom header for custom request and response handling. This is used in [CustomResponse \(p. 795\)](#) and [CustomRequestHandling \(p. 794\)](#).

Contents

Name

The name of the custom header.

For custom request header insertion, when AWS WAF inserts the header into the request, it prefixes this name `x-amzn-waf-`, to avoid confusion with the headers that are already in the request. For example, for the header name `sample`, AWS WAF inserts the header `x-amzn-waf-sample`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `^ [a-zA-Z0-9._$-]+$`

Required: Yes

Value

The value of the custom header.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: `.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CustomRequestHandling

Service: AWS WAFV2

Custom request handling behavior that inserts custom headers into a web request. You can add custom request handling for the rule actions allow and count.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](#) in the [AWS WAF Developer Guide](#).

Contents

InsertHeaders

The HTTP headers to insert into the request. Duplicate header names are not allowed.

For information about the limits on count and size for custom request and response settings, see [AWS WAF quotas](#) in the [AWS WAF Developer Guide](#).

Type: Array of [CustomHTTPHeader \(p. 793\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CustomResponse

Service: AWS WAFV2

A custom response to send to the client. You can define a custom response for rule actions and default web ACL actions that are set to [BlockAction \(p. 781\)](#).

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](#) in the [AWS WAF Developer Guide](#).

Contents

CustomResponseBodyKey

References the response body that you want AWS WAF to return to the web request client. You can define a custom response for a rule action or a default web ACL action that is set to block. To do this, you first define the response body key and value in the `CustomResponseBodies` setting for the [WebACL \(p. 900\)](#) or [RuleGroup \(p. 872\)](#) where you want to use it. Then, in the rule action or web ACL default action `BlockAction` setting, you reference the response body using this key.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[\w\-\]+$`

Required: No

ResponseCode

The HTTP status code to return to the client.

For a list of status codes that you can use in your custom responses, see [Supported status codes for custom response](#) in the [AWS WAF Developer Guide](#).

Type: Integer

Valid Range: Minimum value of 200. Maximum value of 599.

Required: Yes

ResponseHeaders

The HTTP headers to use in the response. Duplicate header names are not allowed.

For information about the limits on count and size for custom request and response settings, see [AWS WAF quotas](#) in the [AWS WAF Developer Guide](#).

Type: Array of [CustomHTTPHeader \(p. 793\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

CustomResponseBody

Service: AWS WAFV2

The response body to use in a custom response to a web request. This is referenced by key from [CustomResponse \(p. 795\)](#) `CustomResponseBodyKey`.

Contents

Content

The payload of the custom response.

You can use JSON escape strings in JSON content. To do this, you must specify JSON content in the `ContentType` setting.

For information about the limits on count and size for custom request and response settings, see [AWS WAF quotas](#) in the [AWS WAF Developer Guide](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 10240.

Pattern: `[\s\S]*`

Required: Yes

ContentType

The type of content in the payload that you are defining in the `Content` string.

Type: String

Valid Values: `TEXT_PLAIN` | `TEXT_HTML` | `APPLICATION_JSON`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

DefaultAction

Service: AWS WAFV2

In a [WebACL \(p. 900\)](#), this is the action that you want AWS WAF to perform when a web request doesn't match any of the rules in the `WebACL`. The default action must be a terminating action, so you can't use `count`.

Contents

Allow

Specifies that AWS WAF should allow requests by default.

Type: [AllowAction \(p. 778\)](#) object

Required: No

Block

Specifies that AWS WAF should block requests by default.

Type: [BlockAction \(p. 781\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ExcludedRule

Service: AWS WAFV2

Specifies a single rule in a rule group whose action you want to override to Count. When you exclude a rule, AWS WAF evaluates it exactly as it would if the rule action setting were Count. This is a useful option for testing the rules in a rule group without modifying how they handle your web traffic.

Contents

Name

The name of the rule whose action you want to override to Count.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\w\-\]+\$

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

FieldToMatch

Service: AWS WAFV2

The part of the web request that you want AWS WAF to inspect. Include the single `FieldToMatch` type that you want to inspect, with additional specifications as needed, according to the type. You specify a single request component in `FieldToMatch` for each rule statement that requires it. To inspect more than one component of the web request, create a separate rule statement for each component.

Example JSON for a `QueryString` field to match:

```
"FieldToMatch": { "QueryString": {} }
```

Example JSON for a `Method` field to match specification:

```
"FieldToMatch": { "Method": { "Name": "DELETE" } }
```

Contents

AllQueryArguments

Inspect all query arguments.

Type: [AllQueryArguments \(p. 779\)](#) object

Required: No

Body

Inspect the request body as plain text. The request body immediately follows the request headers. This is the part of a request that contains any additional data that you want to send to your web server as the HTTP request body, such as data from a form.

Only the first 8 KB (8192 bytes) of the request body are forwarded to AWS WAF for inspection by the underlying host service. For information about how to handle oversized request bodies, see the `Body` object configuration.

Type: [Body \(p. 782\)](#) object

Required: No

Cookies

Inspect the request cookies. You must configure scope and pattern matching filters in the `Cookies` object, to define the set of cookies and the parts of the cookies that AWS WAF inspects.

Only the first 8 KB (8192 bytes) of a request's cookies and only the first 200 cookies are forwarded to AWS WAF for inspection by the underlying host service. You must configure how to handle any oversize cookie content in the `Cookies` object. AWS WAF applies the pattern matching filters to the cookies that it receives from the underlying host service.

Type: [Cookies \(p. 790\)](#) object

Required: No

Headers

Inspect the request headers. You must configure scope and pattern matching filters in the `Headers` object, to define the set of headers to and the parts of the headers that AWS WAF inspects.

Only the first 8 KB (8192 bytes) of a request's headers and only the first 200 headers are forwarded to AWS WAF for inspection by the underlying host service. You must configure how to handle any

oversize header content in the `Headers` object. AWS WAF applies the pattern matching filters to the headers that it receives from the underlying host service.

Type: [Headers \(p. 812\)](#) object

Required: No

JsonBody

Inspect the request body as JSON. The request body immediately follows the request headers. This is the part of a request that contains any additional data that you want to send to your web server as the HTTP request body, such as data from a form.

Only the first 8 KB (8192 bytes) of the request body are forwarded to AWS WAF for inspection by the underlying host service. For information about how to handle oversized request bodies, see the `JsonBody` object configuration.

Type: [JsonBody \(p. 825\)](#) object

Required: No

Method

Inspect the HTTP method. The method indicates the type of operation that the request is asking the origin to perform.

Type: [Method \(p. 849\)](#) object

Required: No

QueryString

Inspect the query string. This is the part of a URL that appears after a ? character, if any.

Type: [QueryString \(p. 856\)](#) object

Required: No

SingleHeader

Inspect a single header. Provide the name of the header to inspect, for example, `User-Agent` or `Referer`. This setting isn't case sensitive.

Example JSON: "SingleHeader": { "Name": "haystack" }

Alternately, you can filter and inspect all headers with the `Headers` `FieldToMatch` setting.

Type: [SingleHeader \(p. 881\)](#) object

Required: No

SingleQueryArgument

Inspect a single query argument. Provide the name of the query argument to inspect, such as `UserName` or `SalesRegion`. The name can be up to 30 characters long and isn't case sensitive.

Example JSON: "SingleQueryArgument": { "Name": "myArgument" }

Type: [SingleQueryArgument \(p. 882\)](#) object

Required: No

UriPath

Inspect the request URI path. This is the part of the web request that identifies a resource, for example, `/images/daily-ad.jpg`.

Type: [UriPath \(p. 896\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Filter

Service: AWS WAFV2

A single logging filter, used in [LoggingFilter \(p. 834\)](#).

Contents

Behavior

How to handle logs that satisfy the filter's conditions and requirement.

Type: String

Valid Values: `KEEP` | `DROP`

Required: Yes

Conditions

Match conditions for the filter.

Type: Array of [Condition \(p. 788\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

Requirement

Logic to apply to the filtering conditions. You can specify that, in order to satisfy the filter, a log must match all conditions or must match at least one condition.

Type: String

Valid Values: `MEETS_ALL` | `MEETS_ANY`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

FirewallManagerRuleGroup

Service: AWS WAFV2

A rule group that's defined for an AWS Firewall Manager WAF policy.

Contents

FirewallManagerStatement

The processing guidance for an AWS Firewall Manager rule. This is like a regular rule [Statement \(p. 886\)](#), but it can only contain a rule group reference.

Type: [FirewallManagerStatement \(p. 806\)](#) object

Required: Yes

Name

The name of the rule group. You cannot change the name of a rule group after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\w\-\]+\$

Required: Yes

OverrideAction

The action to use in the place of the action that results from the rule group evaluation. Set the override action to none to leave the result of the rule group alone. Set it to count to override the result to count only.

You can only use this for rule statements that reference a rule group, like [RuleGroupReferenceStatement](#) and [ManagedRuleGroupStatement](#).

Note

This option is usually set to none. It does not affect how the rules in the rule group are evaluated. If you want the rules in the rule group to only count matches, do not use this and instead exclude those rules in your rule group reference statement settings.

Type: [OverrideAction \(p. 854\)](#) object

Required: Yes

Priority

If you define more than one rule group in the first or last Firewall Manager rule groups, AWS WAF evaluates each request against the rule groups in order, starting from the lowest priority setting. The priorities don't need to be consecutive, but they must all be different.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

VisibilityConfig

Defines and enables Amazon CloudWatch metrics and web request sample collection.

Type: [VisibilityConfig \(p. 899\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

FirewallManagerStatement

Service: AWS WAFV2

The processing guidance for an AWS Firewall Manager rule. This is like a regular rule Statement ([p. 886](#)), but it can only contain a rule group reference.

Contents

ManagedRuleGroupStatement

A rule statement used to run the rules that are defined in a managed rule group. To use this, provide the vendor name and the name of the rule group in this statement. You can retrieve the required names by calling [ListAvailableManagedRuleGroups \(p. 172\)](#).

You cannot nest a ManagedRuleGroupStatement, for example for use inside a NotStatement or OrStatement. It can only be referenced as a top-level statement within a rule.

Type: [ManagedRuleGroupStatement \(p. 837\)](#) object

Required: No

RuleGroupReferenceStatement

A rule statement used to run the rules that are defined in a [RuleGroup \(p. 872\)](#). To use this, create a rule group with your rules, then provide the ARN of the rule group in this statement.

You cannot nest a RuleGroupReferenceStatement, for example for use inside a NotStatement or OrStatement. You can only use a rule group reference statement at the top level inside a web ACL.

Type: [RuleGroupReferenceStatement \(p. 875\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ForwardedIPConfig

Service: AWS WAFV2

The configuration for inspecting IP addresses in an HTTP header that you specify, instead of using the IP address that's reported by the web request origin. Commonly, this is the X-Forwarded-For (XFF) header, but you can specify any header name.

Note

If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

This configuration is used for [GeoMatchStatement \(p. 809\)](#) and [RateBasedStatement \(p. 857\)](#). For [IPSetReferenceStatement \(p. 822\)](#), use [IPSetForwardedIPConfig \(p. 820\)](#) instead.

AWS WAF only evaluates the first IP address found in the specified HTTP header.

Contents

FallbackBehavior

The match status to assign to the web request if the request doesn't have a valid IP address in the specified position.

Note

If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

You can specify the following fallback behaviors:

- MATCH - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
- NO_MATCH - Treat the web request as not matching the rule statement.

Type: String

Valid Values: MATCH | NO_MATCH

Required: Yes

HeaderName

The name of the HTTP header to use for the IP address. For example, to use the X-Forwarded-For (XFF) header, set this to X-Forwarded-For.

Note

If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: ^[a-zA-Z0-9-]+\$

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

GeoMatchStatement

Service: AWS WAFV2

A rule statement used to identify web requests based on country of origin.

Contents

CountryCodes

An array of two-character country codes, for example, ["US", "CN"], from the alpha-2 country ISO codes of the ISO 3166 international standard.

Type: Array of strings

Array Members: Minimum number of 1 item.

Valid Values:	AF		AX		AL		DZ		AS		AD		AO		AI		AQ		AG		AR		AM		AW			
AU	AT		AZ		BS		BH		BD		BB		BY		BE		BZ		BJ		BM		BT		BO		BQ	
BA	BW		BV		BR		IO		BN		BG		BF		BI		KH		CM		CA		CV		KY		CF	
TD	CL		CN		CX		CC		CO		KM		CG		CD		CK		CR		CI		HR		CU		CW	
CY	CZ		DK		DJ		DM		DO		EC		EG		SV		GQ		ER		EE		ET		FK		FO	
FJ	FI		FR		GF		PF		TF		GA		GM		GE		DE		GH		GI		GR		GL		GD	
GP	GU		GT		GG		GN		GW		GY		HT		HM		VA		HN		HK		HU		IS		IN	
ID	IR		IQ		IE		IM		IL		IT		JM		JP		JE		JO		KZ		KE		KI		KP	
KR	KW		KG		LA		LV		LB		LS		LR		LY		LI		LT		LU		MO		MK		MG	
MW	MY		MV		ML		MT		MH		MQ		MR		MU		YT		MX		FM		MD		MC		MN	
ME	MS		MA		MZ		MM		NA		NR		NP		NL		NC		NZ		NI		NE		NG		NU	
NF	MP		NO		OM		PK		PW		PS		PA		PG		PY		PE		PH		PN		PL		PT	
PR	QA		RE		RO		RU		RW		BL		SH		KN		LC		MF		PM		VC		WS		SM	
ST	SA		SN		RS		SC		SL		SG		SX		SK		SI		SB		SO		ZA		GS		SS	
ES	LK		SD		SR		SJ		SZ		SE		CH		SY		TW		TJ		TZ		TH		TL		TG	
TK	TO		TT		TN		TR		TM		TC		TV		UG		UA		AE		GB		US		UM		UY	
UZ	VU		VE		VN		VG		VI		WF		EH		YE		ZM		ZW		XK							

Required: No

ForwardedIPConfig

The configuration for inspecting IP addresses in an HTTP header that you specify, instead of using the IP address that's reported by the web request origin. Commonly, this is the X-Forwarded-For (XFF) header, but you can specify any header name.

Note

If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

Type: [ForwardedIPConfig \(p. 807\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

HeaderMatchPattern

Service: AWS WAFV2

The filter to use to identify the subset of headers to inspect in a web request.

You must specify exactly one setting: either `All`, `IncludedHeaders`, or `ExcludedHeaders`.

Example JSON: `"MatchPattern": { "ExcludedHeaders": { "KeyToExclude1", "KeyToExclude2" } }`

Contents

All

Inspect all headers.

Type: [All \(p. 777\)](#) object

Required: No

ExcludedHeaders

Inspect only the headers whose keys don't match any of the strings specified here.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 199 items.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `.*\$.*`

Required: No

IncludedHeaders

Inspect only the headers that have a key that matches one of the strings specified here.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 199 items.

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `.*\$.*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Headers

Service: AWS WAFV2

Inspect all headers in the web request. You can specify the parts of the headers to inspect and you can narrow the set of headers to inspect by including or excluding specific keys.

This is used to indicate the web request component to inspect, in the [FieldToMatch \(p. 800\)](#) specification.

If you want to inspect just the value of a single header, use the `SingleHeader` `FieldToMatch` setting instead.

Example JSON: "Headers": { "MatchPattern": { "All": {} }, "MatchScope": "KEY", "OversizeHandling": "MATCH" }

Contents

MatchPattern

The filter to use to identify the subset of headers to inspect in a web request.

You must specify exactly one setting: either `All`, `IncludedHeaders`, or `ExcludedHeaders`.

Example JSON: "MatchPattern": { "ExcludedHeaders": {"KeyToExclude1", "KeyToExclude2"} }

Type: [HeaderMatchPattern \(p. 811\)](#) object

Required: Yes

MatchScope

The parts of the headers to match with the rule inspection criteria. If you specify `All`, AWS WAF inspects both keys and values.

Type: String

Valid Values: ALL | KEY | VALUE

Required: Yes

OversizeHandling

What AWS WAF should do if the headers of the request are larger than AWS WAF can inspect. AWS WAF does not support inspecting the entire contents of request headers when they exceed 8 KB (8192 bytes) or 200 total headers. The underlying host service forwards a maximum of 200 headers and at most 8 KB of header contents to AWS WAF.

The options for oversize handling are the following:

- `CONTINUE` - Inspect the headers normally, according to the rule inspection criteria.
- `MATCH` - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
- `NO_MATCH` - Treat the web request as not matching the rule statement.

Type: String

Valid Values: CONTINUE | MATCH | NO_MATCH

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

HTTPHeader

Service: AWS WAFV2

Part of the response from [GetSampledRequests \(p. 118\)](#). This is a complex type that appears as `Headers` in the response syntax. `HTTPHeader` contains the names and values of all of the headers that appear in one of the web requests.

Contents

Name

The name of the HTTP header.

Type: String

Required: No

Value

The value of the HTTP header.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

HTTPRequest

Service: AWS WAFV2

Part of the response from [GetSampledRequests \(p. 118\)](#). This is a complex type that appears as Request in the response syntax. HTTPRequest contains information about one of the web requests.

Contents

ClientIP

The IP address that the request originated from. If the web ACL is associated with a CloudFront distribution, this is the value of one of the following fields in CloudFront access logs:

- `c-ip`, if the viewer did not use an HTTP proxy or a load balancer to send the request
- `x-forwarded-for`, if the viewer did use an HTTP proxy or a load balancer to send the request

Type: String

Required: No

Country

The two-letter country code for the country that the request originated from. For a current list of country codes, see the Wikipedia entry [ISO 3166-1 alpha-2](#).

Type: String

Required: No

Headers

A complex type that contains the name and value for each header in the sampled web request.

Type: Array of [HTTPHeader \(p. 814\)](#) objects

Required: No

HTTPVersion

The HTTP version specified in the sampled web request, for example, `HTTP/1.1`.

Type: String

Required: No

Method

The HTTP method specified in the sampled web request.

Type: String

Required: No

URI

The URI path of the request, which identifies the resource, for example, `/images/daily-ad.jpg`.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ImmunityTimeProperty

Service: AWS WAFV2

Determines how long a CAPTCHA token remains valid after the client successfully solves a CAPTCHA puzzle.

Contents

ImmunityTime

The amount of time, in seconds, that a CAPTCHA token is valid. The default setting is 300.

Type: Long

Valid Range: Minimum value of 60. Maximum value of 259200.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

IPSet

Service: AWS WAFV2

Contains zero or more IP addresses or blocks of IP addresses specified in Classless Inter-Domain Routing (CIDR) notation. AWS WAF supports all IPv4 and IPv6 CIDR ranges except for /0. For information about CIDR notation, see the Wikipedia entry [Classless Inter-Domain Routing](#).

AWS WAF assigns an ARN to each IPSet that you create. To use an IP set in a rule, you provide the ARN to the [Rule \(p. 868\)](#) statement [IPSetReferenceStatement \(p. 822\)](#).

Contents

Addresses

Contains an array of strings that specifies zero or more IP addresses or blocks of IP addresses in Classless Inter-Domain Routing (CIDR) notation. AWS WAF supports all IPv4 and IPv6 CIDR ranges except for /0.

Example address strings:

- To configure AWS WAF to allow, block, or count requests that originated from the IP address 192.0.2.44, specify 192.0.2.44/32.
- To configure AWS WAF to allow, block, or count requests that originated from IP addresses from 192.0.2.0 to 192.0.2.255, specify 192.0.2.0/24.
- To configure AWS WAF to allow, block, or count requests that originated from the IP address 1111:0000:0000:0000:0000:0000:0111, specify 1111:0000:0000:0000:0000:0000:0111/128.
- To configure AWS WAF to allow, block, or count requests that originated from IP addresses 1111:0000:0000:0000:0000:0000:0000 to 1111:0000:0000:ffff:ffff:ffff:ffff, specify 1111:0000:0000:0000:0000:0000:0000/64.

For more information about CIDR notation, see the Wikipedia entry [Classless Inter-Domain Routing](#).

Example JSON Addresses specifications:

- Empty array: "Addresses": []
- Array with one address: "Addresses": ["192.0.2.44/32"]
- Array with three addresses: "Addresses": ["192.0.2.44/32", "192.0.2.0/24", "192.0.0.0/16"]
- INVALID specification: "Addresses": [""] INVALID

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: .*\S.*

Required: Yes

ARN

The Amazon Resource Name (ARN) of the entity.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\S.*

Required: Yes

Description

A description of the IP set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\\s]+[\w+=:#@/\-,\.]\$

Required: No

Id

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: Yes

IPAddressVersion

The version of the IP addresses, either IPV4 or IPV6.

Type: String

Valid Values: IPV4 | IPV6

Required: Yes

Name

The name of the IP set. You cannot change the name of an IPSet after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\w\-\-]+\$

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

IPSetForwardedIPConfig

Service: AWS WAFV2

The configuration for inspecting IP addresses in an HTTP header that you specify, instead of using the IP address that's reported by the web request origin. Commonly, this is the X-Forwarded-For (XFF) header, but you can specify any header name.

Note

If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

This configuration is used only for [IPSetReferenceStatement \(p. 822\)](#). For [GeoMatchStatement \(p. 809\)](#) and [RateBasedStatement \(p. 857\)](#), use [ForwardedIPConfig \(p. 807\)](#) instead.

Contents

FallbackBehavior

The match status to assign to the web request if the request doesn't have a valid IP address in the specified position.

Note

If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

You can specify the following fallback behaviors:

- MATCH - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
- NO_MATCH - Treat the web request as not matching the rule statement.

Type: String

Valid Values: MATCH | NO_MATCH

Required: Yes

HeaderName

The name of the HTTP header to use for the IP address. For example, to use the X-Forwarded-For (XFF) header, set this to X-Forwarded-For.

Note

If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: ^[a-zA-Z0-9-]+\$

Required: Yes

Position

The position in the header to search for the IP address. The header can contain IP addresses of the original client and also of proxies. For example, the header value could be 10.1.1.1, 127.0.0.0, 10.10.10.10 where the first IP address identifies the original client and the rest identify proxies that the request went through.

The options for this setting are the following:

- FIRST - Inspect the first IP address in the list of IP addresses in the header. This is usually the client's original IP.
- LAST - Inspect the last IP address in the list of IP addresses in the header.
- ANY - Inspect all IP addresses in the header for a match. If the header contains more than 10 IP addresses, AWS WAF inspects the last 10.

Type: String

Valid Values: FIRST | LAST | ANY

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

IPSetReferenceStatement

Service: AWS WAFV2

A rule statement used to detect web requests coming from particular IP addresses or address ranges. To use this, create an [IPSet \(p. 818\)](#) that specifies the addresses you want to detect, then use the ARN of that set in this statement. To create an IP set, see [CreateIPSet \(p. 23\)](#).

Each IP set rule statement references an IP set. You create and maintain the set independent of your rules. This allows you to use the single set in multiple rules. When you update the referenced set, AWS WAF automatically updates all rules that reference it.

Contents

ARN

The Amazon Resource Name (ARN) of the [IPSet \(p. 818\)](#) that this statement references.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\S.*`

Required: Yes

IPSetForwardedIPConfig

The configuration for inspecting IP addresses in an HTTP header that you specify, instead of using the IP address that's reported by the web request origin. Commonly, this is the X-Forwarded-For (XFF) header, but you can specify any header name.

Note

If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

Type: [IPSetForwardedIPConfig \(p. 820\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

IPSetSummary

Service: AWS WAFV2

High-level information about an [IPSet \(p. 818\)](#), returned by operations like create and list. This provides information like the ID, that you can use to retrieve and manage an IPSet, and the ARN, that you provide to the [IPSetReferenceStatement \(p. 822\)](#) to use the address set in a [Rule \(p. 868\)](#).

Contents

ARN

The Amazon Resource Name (ARN) of the entity.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\$.*`

Required: No

Description

A description of the IP set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\$]+[\w+=:#@/\-,\.]$`

Required: No

Id

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9a-f]{8}-(:[0-9a-f]{4})-{3}[0-9a-f]{12}$`

Required: No

LockToken

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9a-f]{8}-(:[0-9a-f]{4})-{3}[0-9a-f]{12}$`

Required: No

Name

The name of the IP set. You cannot change the name of an IPSet after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\w\-\]+\$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

JsonBody

Service: AWS WAFV2

Inspect the body of the web request as JSON. The body immediately follows the request headers.

This is used to indicate the web request component to inspect, in the [FieldToMatch \(p. 800\)](#) specification.

Use the specifications in this object to indicate which parts of the JSON body to inspect using the rule's inspection criteria. AWS WAF inspects only the parts of the JSON that result from the matches that you indicate.

Example JSON: "JsonBody": { "MatchPattern": { "All": {} }, "MatchScope": "ALL" }

Contents

InvalidFallbackBehavior

What AWS WAF should do if it fails to completely parse the JSON body. The options are the following:

- **EVALUATE_AS_STRING** - Inspect the body as plain text. AWS WAF applies the text transformations and inspection criteria that you defined for the JSON inspection to the body text string.
- **MATCH** - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
- **NO_MATCH** - Treat the web request as not matching the rule statement.

If you don't provide this setting, AWS WAF parses and evaluates the content only up to the first parsing failure that it encounters.

AWS WAF does its best to parse the entire JSON body, but might be forced to stop for reasons such as invalid characters, duplicate keys, truncation, and any content whose root node isn't an object or an array.

AWS WAF parses the JSON in the following examples as two valid key, value pairs:

- Missing comma: {"key1":"value1","key2":"value2"}
- Missing colon: {"key1":"value1", "key2""value2"}
- Extra colons: {"key1":::"value1", "key2""value2"}

Type: String

Valid Values: MATCH | NO_MATCH | EVALUATE_AS_STRING

Required: No

MatchPattern

The patterns to look for in the JSON body. AWS WAF inspects the results of these pattern matches against the rule inspection criteria.

Type: [JsonMatchPattern \(p. 827\)](#) object

Required: Yes

MatchScope

The parts of the JSON to match against using the MatchPattern. If you specify All, AWS WAF matches against keys and values.

Type: String

Valid Values: ALL | KEY | VALUE

Required: Yes

OversizeHandling

What AWS WAF should do if the body is larger than AWS WAF can inspect. AWS WAF does not support inspecting the entire contents of the body of a web request when the body exceeds 8 KB (8192 bytes). Only the first 8 KB of the request body are forwarded to AWS WAF by the underlying host service.

The options for oversize handling are the following:

- CONTINUE - Inspect the body normally, according to the rule inspection criteria.
- MATCH - Treat the web request as matching the rule statement. AWS WAF applies the rule action to the request.
- NO_MATCH - Treat the web request as not matching the rule statement.

You can combine the MATCH or NO_MATCH settings for oversize handling with your rule and web ACL action settings, so that you block any request whose body is over 8 KB.

Default: CONTINUE

Type: String

Valid Values: CONTINUE | MATCH | NO_MATCH

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

JsonMatchPattern

Service: AWS WAFV2

The patterns to look for in the JSON body. AWS WAF inspects the results of these pattern matches against the rule inspection criteria. This is used with the [FieldToMatch \(p. 800\)](#) option `JsonBody`.

Contents

All

Match all of the elements. See also `MatchScope` in [JsonBody \(p. 825\)](#).

You must specify either this setting or the `IncludedPaths` setting, but not both.

Type: [All \(p. 777\)](#) object

Required: No

IncludedPaths

Match only the specified include paths. See also `MatchScope` in [JsonBody \(p. 825\)](#).

Provide the include paths using JSON Pointer syntax. For example, `"IncludedPaths": ["/dogs/0/name", "/dogs/1/name"]`. For information about this syntax, see the Internet Engineering Task Force (IETF) documentation [JavaScript Object Notation \(JSON\) Pointer](#).

You must specify either this setting or the `All` setting, but not both.

Note

Don't use this option to include all paths. Instead, use the `All` setting.

Type: Array of strings

Array Members: Minimum number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `([/])|([/](\{[^~]\})|(\{~[01]\}))+`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Label

Service: AWS WAFV2

A single label container. This is used as an element of a label array in multiple contexts, for example, in [RuleLabels](#) inside a [Rule](#) (p. 868) and in [Labels](#) inside a [SampledHTTPRequest](#) (p. 879).

Contents

Name

The label string.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^[0-9A-Za-z_\-\:]+"

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

LabelMatchStatement

Service: AWS WAFV2

A rule statement that defines a string match search against labels that have been added to the web request by rules that have already run in the web ACL.

The label match statement provides the label or namespace string to search for. The label string can represent a part or all of the fully qualified label name that had been added to the web request. Fully qualified labels have a prefix, optional namespaces, and label name. The prefix identifies the rule group or web ACL context of the rule that added the label. If you do not provide the fully qualified name in your label match string, AWS WAF performs the search for labels that were added in the same context as the label match statement.

Contents

Key

The string to match against. The setting you provide for this depends on the match statement's Scope setting:

- If the Scope indicates `LABEL`, then this specification must include the name and can include any number of preceding namespace specifications and prefix up to providing the fully qualified label name.
- If the Scope indicates `NAMESPACE`, then this specification can include any number of contiguous namespace strings, and can include the entire label namespace prefix from the rule group or web ACL where the label originates.

Labels are case sensitive and components of a label must be separated by colon, for example `NS1:NS2:name`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: `^ [0-9A-Za-z_\-\:] + $`

Required: Yes

Scope

Specify whether you want to match using the label name or just the namespace.

Type: String

Valid Values: `LABEL` | `NAMESPACE`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

LabelNameCondition

Service: AWS WAFV2

A single label name condition for a [Condition \(p. 788\)](#) in a logging filter.

Contents

LabelName

The label name that a log record must contain in order to meet the condition. This must be a fully qualified label name. Fully qualified labels have a prefix, optional namespaces, and label name. The prefix identifies the rule group or web ACL context of the rule that added the label.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^[0-9A-Za-z_\-\:]^+\$

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

LabelSummary

Service: AWS WAFV2

List of labels used by one or more of the rules of a [RuleGroup \(p. 872\)](#). This summary object is used for the following rule group lists:

- **AvailableLabels** - Labels that rules add to matching requests. These labels are defined in the RuleLabels for a [Rule \(p. 868\)](#).
- **ConsumedLabels** - Labels that rules match against. These labels are defined in a LabelMatchStatement specification, in the [Statement \(p. 886\)](#) definition of a rule.

Contents

Name

An individual label specification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^[0-9A-Za-z_\-\:]+"

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

LoggingConfiguration

Service: AWS WAFV2

Defines an association between logging destinations and a web ACL resource, for logging from AWS WAF. As part of the association, you can specify parts of the standard logging fields to keep out of the logs and you can specify filters so that you log only a subset of the logging records.

Note

You can define one logging destination per web ACL.

You can access information about the traffic that AWS WAF inspects using the following steps:

1. Create your logging destination. You can use an Amazon CloudWatch Logs log group, an Amazon Simple Storage Service (Amazon S3) bucket, or an Amazon Kinesis Data Firehose. For information about configuring logging destinations and the permissions that are required for each, see [Logging web ACL traffic information](#) in the *AWS WAF Developer Guide*.
2. Associate your logging destination to your web ACL using a `PutLoggingConfiguration` request.

When you successfully enable logging using a `PutLoggingConfiguration` request, AWS WAF creates an additional role or policy that is required to write logs to the logging destination. For an Amazon CloudWatch Logs log group, AWS WAF creates a resource policy on the log group. For an Amazon S3 bucket, AWS WAF creates a bucket policy. For an Amazon Kinesis Data Firehose, AWS WAF creates a service-linked role.

For additional information about web ACL logging, see [Logging web ACL traffic information](#) in the *AWS WAF Developer Guide*.

Contents

LogDestinationConfigs

The logging destination configuration that you want to associate with the web ACL.

Note

You can associate one logging destination to a web ACL.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 100 items.

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\$.*`

Required: Yes

LoggingFilter

Filtering that specifies which web requests are kept in the logs and which are dropped. You can filter on the rule action and on the web request labels that were applied by matching rules during web ACL evaluation.

Type: [LoggingFilter \(p. 834\)](#) object

Required: No

ManagedByFirewallManager

Indicates whether the logging configuration was created by AWS Firewall Manager, as part of an AWS WAF policy configuration. If true, only Firewall Manager can modify or delete the configuration.

Type: Boolean

Required: No

RedactedFields

The parts of the request that you want to keep out of the logs. For example, if you redact the `SingleHeader` field, the `HEADER` field in the logs will be `xxx`.

Note

You can specify only the following fields for redaction: `UriPath`, `QueryString`, `SingleHeader`, `Method`, and `JsonBody`.

Type: Array of [FieldToMatch \(p. 800\)](#) objects

Array Members: Maximum number of 100 items.

Required: No

ResourceArn

The Amazon Resource Name (ARN) of the web ACL that you want to associate with `LogDestinationConfigs`.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\$.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

LoggingFilter

Service: AWS WAFV2

Filtering that specifies which web requests are kept in the logs and which are dropped, defined for a web ACL's [LoggingConfiguration \(p. 832\)](#).

You can filter on the rule action and on the web request labels that were applied by matching rules during web ACL evaluation.

Contents

DefaultBehavior

Default handling for logs that don't match any of the specified filtering conditions.

Type: String

Valid Values: `KEEP` | `DROP`

Required: Yes

Filters

The filters that you want to apply to the logs.

Type: Array of [Filter \(p. 803\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ManagedRuleGroupConfig

Service: AWS WAFV2

Additional information that's used by a managed rule group. Most managed rule groups don't require this.

Use this for the account takeover prevention managed rule group `AWSManagedRulesATPRuleSet`, to provide information about the sign-in page of your application.

You can provide multiple individual `ManagedRuleGroupConfig` objects for any rule group configuration, for example `UsernameField` and `PasswordField`. The configuration that you provide depends on the needs of the managed rule group. For the ATP managed rule group, you provide the following individual configuration objects: `LoginPath`, `PasswordField`, `PayloadType` and `UsernameField`.

Contents

LoginPath

The path of the login endpoint for your application. For example, for the URL `https://example.com/web/login`, you would provide the path `/web/login`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `.*\S.*`

Required: No

PasswordField

Details about your login page password field.

Type: [PasswordField \(p. 855\)](#) object

Required: No

PayloadType

The payload type for your login endpoint, either JSON or form encoded.

Type: String

Valid Values: `JSON` | `FORM_ENCODED`

Required: No

UsernameField

Details about your login page username field.

Type: [UsernameField \(p. 897\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ManagedRuleGroupStatement

Service: AWS WAFV2

A rule statement used to run the rules that are defined in a managed rule group. To use this, provide the vendor name and the name of the rule group in this statement. You can retrieve the required names by calling [ListAvailableManagedRuleGroups \(p. 172\)](#).

You cannot nest a ManagedRuleGroupStatement, for example for use inside a `NotStatement` or `OrStatement`. It can only be referenced as a top-level statement within a rule.

Contents

ExcludedRules

The rules in the referenced rule group whose actions are set to `Count`. When you exclude a rule, AWS WAF evaluates it exactly as it would if the rule action setting were `Count`. This is a useful option for testing the rules in a rule group without modifying how they handle your web traffic.

Type: Array of [ExcludedRule \(p. 799\)](#) objects

Array Members: Maximum number of 100 items.

Required: No

ManagedRuleGroupConfigs

Additional information that's used by a managed rule group. Most managed rule groups don't require this.

Use this for the account takeover prevention managed rule group `AWSManagedRulesATPRuleSet`, to provide information about the sign-in page of your application.

You can provide multiple individual `ManagedRuleGroupConfig` objects for any rule group configuration, for example `UsernameField` and `PasswordField`. The configuration that you provide depends on the needs of the managed rule group. For the ATP managed rule group, you provide the following individual configuration objects: `LoginPath`, `PasswordField`, `PayloadType` and `UsernameField`.

Type: Array of [ManagedRuleGroupConfig \(p. 835\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

Name

The name of the managed rule group. You use this, along with the vendor name, to identify the rule group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[\w\-\-]+$`

Required: Yes

ScopeDownStatement

An optional nested statement that narrows the scope of the web requests that are evaluated by the managed rule group. Requests are only evaluated by the rule group if they match the scope-down

statement. You can use any nestable [Statement \(p. 886\)](#) in the scope-down statement, and you can nest statements at any level, the same as you can for a rule statement.

Type: [Statement \(p. 886\)](#) object

Required: No

VendorName

The name of the managed rule group vendor. You use this, along with the rule group name, to identify the rule group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: Yes

Version

The version of the managed rule group to use. If you specify this, the version setting is fixed until you change it. If you don't specify this, AWS WAF uses the vendor's default version, and then keeps the version at the vendor's default when the vendor updates the managed rule group settings.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[\w#:.\-/.]+\$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ManagedRuleGroupSummary

Service: AWS WAFV2

High-level information about a managed rule group, returned by [ListAvailableManagedRuleGroups \(p. 172\)](#). This provides information like the name and vendor name, that you provide when you add a [ManagedRuleGroupStatement \(p. 837\)](#) to a web ACL. Managed rule groups include AWS Managed Rules rule groups, which are free of charge to AWS WAF customers, and AWS Marketplace managed rule groups, which you can subscribe to through AWS Marketplace.

Contents

Description

The description of the managed rule group, provided by AWS Managed Rules or the AWS Marketplace seller who manages it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\\s]+[\w+=:#@/\-,\.]$`

Required: No

Name

The name of the managed rule group. You use this, along with the vendor name, to identify the rule group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[\w\-\-]+$`

Required: No

VendorName

The name of the managed rule group vendor. You use this, along with the rule group name, to identify the rule group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

VersioningSupported

Indicates whether the managed rule group is versioned. If it is, you can retrieve the versions list by calling [ListAvailableManagedRuleGroupVersions \(p. 175\)](#).

Type: Boolean

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ManagedRuleGroupVersion

Service: AWS WAFV2

Describes a single version of a managed rule group.

Contents

LastUpdateTimestamp

The date and time that the managed rule group owner updated the rule group version information.

Type: Timestamp

Required: No

Name

The version name.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[\w#: \. \- /]+\$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ManagedRuleSet

Service: AWS WAFV2

A set of rules that is managed by AWS and AWS Marketplace sellers to provide versioned managed rule groups for customers of AWS WAF.

Note

This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers.

Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are `ListManagedRuleSets`, `GetManagedRuleSet`, `PutManagedRuleSetVersions`, and `UpdateManagedRuleSetVersionExpiryDate`.

Contents

ARN

The Amazon Resource Name (ARN) of the entity.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\$`

Required: Yes

Description

A description of the set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\\\$]+[\w+=:#@/\-,\.]\$`

Required: No

Id

A unique identifier for the managed rule set. The ID is returned in the responses to commands like `list`. You provide it to operations like `get` and `update`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$`

Required: Yes

LabelNamespace

The label namespace prefix for the managed rule groups that are offered to customers from this managed rule set. All labels that are added by rules in the managed rule group have this prefix.

- The syntax for the label namespace prefix for a managed rule group is the following:

`awswaf:managed:<vendor>:<rule group name>`

- When a rule with a label matches a web request, AWS WAF adds the fully qualified label to the request. A fully qualified label is made up of the label namespace from the rule group or web ACL where the rule is defined and the label from the rule, separated by a colon:

```
<label namespace>:<label from rule>
```

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^[0-9A-Za-z_\-\:]++\$

Required: No

Name

The name of the managed rule set. You use this, along with the rule set ID, to identify the rule set.

This name is assigned to the corresponding managed rule group, which your customers can access and use.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\w\-\:]++\$

Required: Yes

PublishedVersions

The versions of this managed rule set that are available for use by customers.

Type: String to [ManagedRuleSetVersion \(p. 847\)](#) object map

Key Length Constraints: Minimum length of 1. Maximum length of 64.

Key Pattern: ^[\w#:\.\\-\\/]++\$

Required: No

RecommendedVersion

The version that you would like your customers to use.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[\w#:\\.\\-\\/]++\$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ManagedRuleSetSummary

Service: AWS WAFV2

High-level information for a managed rule set.

Note

This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers.

Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are `ListManagedRuleSets`, `GetManagedRuleSet`, `PutManagedRuleSetVersions`, and `UpdateManagedRuleSetVersionExpiryDate`.

Contents

ARN

The Amazon Resource Name (ARN) of the entity.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\$.*`

Required: No

Description

A description of the set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\\\$]+[\w+=:#@/\-,\.]\$`

Required: No

Id

A unique identifier for the managed rule set. The ID is returned in the responses to commands like `list`. You provide it to operations like `get` and `update`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9a-f]{8}-([0-9a-f]{4}){3}[0-9a-f]{12}\$`

Required: No

LabelNamespace

The label namespace prefix for the managed rule groups that are offered to customers from this managed rule set. All labels that are added by rules in the managed rule group have this prefix.

- The syntax for the label namespace prefix for a managed rule group is the following:

`awswaf:managed:<vendor>:<rule group name>:`

- When a rule with a label matches a web request, AWS WAF adds the fully qualified label to the request. A fully qualified label is made up of the label namespace from the rule group or web ACL where the rule is defined and the label from the rule, separated by a colon:

<label namespace>:<label from rule>

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^[0-9A-Za-z_\-\:]+"

Required: No

LockToken

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: ^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$

Required: No

Name

The name of the managed rule set. You use this, along with the rule set ID, to identify the rule set.

This name is assigned to the corresponding managed rule group, which your customers can access and use.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\w\-\-]+\$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ManagedRuleSetVersion

Service: AWS WAFV2

Information for a single version of a managed rule set.

Note

This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers.

Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are `ListManagedRuleSets`, `GetManagedRuleSet`, `PutManagedRuleSetVersions`, and `UpdateManagedRuleSetVersionExpiryDate`.

Contents

AssociatedRuleGroupArn

The Amazon Resource Name (ARN) of the vendor rule group that's used to define the published version of your managed rule group.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\$.*`

Required: No

Capacity

The web ACL capacity units (WCUs) required for this rule group.

AWS WAF uses WCUs to calculate and control the operating resources that are used to run your rules, rule groups, and web ACLs. AWS WAF calculates capacity differently for each rule type, to reflect the relative cost of each rule. Simple rules that cost little to run use fewer WCUs than more complex rules that use more processing power. Rule group capacity is fixed at creation, which helps users plan their web ACL WCU usage when they use a rule group. The WCU limit for web ACLs is 1,500.

Type: Long

Valid Range: Minimum value of 1.

Required: No

ExpiryTimestamp

The time that this version is set to expire.

Times are in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z".

Type: Timestamp

Required: No

ForecastedLifetime

The amount of time you expect this version of your managed rule group to last, in days.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

LastUpdateTimestamp

The last time that you updated this version.

Times are in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z".

Type: Timestamp

Required: No

PublishTimestamp

The time that you first published this version.

Times are in Coordinated Universal Time (UTC) format. UTC format includes the special designator, Z. For example, "2016-09-27T14:50Z".

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Method

Service: AWS WAFV2

Inspect the HTTP method of the web request. The method indicates the type of operation that the request is asking the origin to perform.

This is used only in the [FieldToMatch \(p. 800\)](#) specification for some web request component types.

JSON specification: "Method": {}

Contents

The members of this 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

MobileSdkRelease

Service: AWS WAFV2

Information for a release of the mobile SDK, including release notes and tags.

The mobile SDK is not generally available. Customers who have access to the mobile SDK can use it to establish and manage AWS Security Token Service (AWS STS) security tokens for use in HTTP(S) requests from a mobile device to AWS WAF. For more information, see [AWS WAF client application integration](#) in the [AWS WAF Developer Guide](#).

Contents

ReleaseNotes

Notes describing the release.

Type: String

Required: No

ReleaseVersion

The release version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[\w#:\.\\-\\/]+\$

Required: No

Tags

Tags that are associated with the release.

Type: Array of [Tag \(p. 890\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

Timestamp

The timestamp of the release.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

NoneAction

Service: AWS WAFV2

Specifies that AWS WAF should do nothing. This is used for the `OverrideAction` setting on a [Rule \(p. 868\)](#) when the rule uses a rule group reference statement.

This is used in the context of other settings, for example to specify values for [RuleAction \(p. 871\)](#) and web ACL [DefaultAction \(p. 798\)](#).

JSON specification: "None": {}

Contents

The members of this 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

NotStatement

Service: AWS WAFV2

A logical rule statement used to negate the results of another rule statement. You provide one [Statement \(p. 886\)](#) within the `NotStatement`.

Contents

Statement

The statement to negate. You can use any statement that can be nested.

Type: [Statement \(p. 886\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

OrStatement

Service: AWS WAFV2

A logical rule statement used to combine other rule statements with OR logic. You provide more than one [Statement \(p. 886\)](#) within the OrStatement.

Contents

Statements

The statements to combine with OR logic. You can use any statements that can be nested.

Type: Array of [Statement \(p. 886\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

OverrideAction

Service: AWS WAFV2

The action to use in the place of the action that results from the rule group evaluation. Set the override action to none to leave the result of the rule group alone. Set it to count to override the result to count only.

You can only use this for rule statements that reference a rule group, like `RuleGroupReferenceStatement` and `ManagedRuleGroupStatement`.

Note

This option is usually set to none. It does not affect how the rules in the rule group are evaluated. If you want the rules in the rule group to only count matches, do not use this and instead exclude those rules in your rule group reference statement settings.

Contents

Count

Override the rule group evaluation result to count only.

Note

This option is usually set to none. It does not affect how the rules in the rule group are evaluated. If you want the rules in the rule group to only count matches, do not use this and instead exclude those rules in your rule group reference statement settings.

Type: [CountAction \(p. 792\)](#) object

Required: No

None

Don't override the rule group evaluation result. This is the most common setting.

Type: [NoneAction \(p. 851\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

PasswordField

Service: AWS WAFV2

Details about your login page password field, used in a `ManagedRuleGroupConfig`.

Contents

Identifier

The name of the password field. For example `/form/password`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

QueryString

Service: AWS WAFV2

Inspect the query string of the web request. This is the part of a URL that appears after a ? character, if any.

This is used only in the [FieldToMatch \(p. 800\)](#) specification for some web request component types.

JSON specification: "QueryString": {}

Contents

The members of this 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RateBasedStatement

Service: AWS WAFV2

A rate-based rule tracks the rate of requests for each originating IP address, and triggers the rule action when the rate exceeds a limit that you specify on the number of requests in any 5-minute time span. You can use this to put a temporary block on requests from an IP address that is sending excessive requests.

AWS WAF tracks and manages web requests separately for each instance of a rate-based rule that you use. For example, if you provide the same rate-based rule settings in two web ACLs, each of the two rule statements represents a separate instance of the rate-based rule and gets its own tracking and management by AWS WAF. If you define a rate-based rule inside a rule group, and then use that rule group in multiple places, each use creates a separate instance of the rate-based rule that gets its own tracking and management by AWS WAF.

When the rule action triggers, AWS WAF blocks additional requests from the IP address until the request rate falls below the limit.

You can optionally nest another statement inside the rate-based statement, to narrow the scope of the rule so that it only counts requests that match the nested statement. For example, based on recent requests that you have seen from an attacker, you might create a rate-based rule with a nested AND rule statement that contains the following nested statements:

- An IP match statement with an IP set that specified the address 192.0.2.44.
- A string match statement that searches in the User-Agent header for the string BadBot.

In this rate-based rule, you also define a rate limit. For this example, the rate limit is 1,000. Requests that meet the criteria of both of the nested statements are counted. If the count exceeds 1,000 requests per five minutes, the rule action triggers. Requests that do not meet the criteria of both of the nested statements are not counted towards the rate limit and are not affected by this rule.

You cannot nest a RateBasedStatement inside another statement, for example inside a NotStatement or OrStatement. You can define a RateBasedStatement inside a web ACL and inside a rule group.

Contents

AggregateKeyType

Setting that indicates how to aggregate the request counts. The options are the following:

- IP - Aggregate the request counts on the IP address from the web request origin.
- FORWARDED_IP - Aggregate the request counts on the first IP address in an HTTP header. If you use this, configure the ForwardedIPConfig, to specify the header to use.

Type: String

Valid Values: IP | FORWARDED_IP

Required: Yes

ForwardedIPConfig

The configuration for inspecting IP addresses in an HTTP header that you specify, instead of using the IP address that's reported by the web request origin. Commonly, this is the X-Forwarded-For (XFF) header, but you can specify any header name.

Note

If the specified header isn't present in the request, AWS WAF doesn't apply the rule to the web request at all.

This is required if `AggregateKeyType` is set to `FORWARDED_IP`.

Type: [ForwardedIPConfig \(p. 807\)](#) object

Required: No

Limit

The limit on requests per 5-minute period for a single originating IP address. If the statement includes a `ScopeDownStatement`, this limit is applied only to the requests that match the statement.

Type: Long

Valid Range: Minimum value of 100. Maximum value of 2000000000.

Required: Yes

ScopeDownStatement

An optional nested statement that narrows the scope of the web requests that are evaluated by the rate-based statement. Requests are only tracked by the rate-based statement if they match the scope-down statement. You can use any nestable [Statement \(p. 886\)](#) in the scope-down statement, and you can nest statements at any level, the same as you can for a rule statement.

Type: [Statement \(p. 886\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RateBasedStatementManagedKeysIPSet

Service: AWS WAFV2

The set of IP addresses that are currently blocked for a [RateBasedStatement \(p. 857\)](#).

Contents

Addresses

The IP addresses that are currently blocked.

Type: Array of strings

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: .*\S.*

Required: No

IPAddressVersion

The version of the IP addresses, either IPV4 or IPV6.

Type: String

Valid Values: IPV4 | IPV6

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Regex

Service: AWS WAFV2

A single regular expression. This is used in a [RegexPatternSet \(p. 862\)](#).

Contents

RegexString

The string representing the regular expression.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: .*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexMatchStatement

Service: AWS WAFV2

A rule statement used to search web request components for a match against a single regular expression.

Contents

FieldToMatch

The part of the web request that you want AWS WAF to inspect.

Type: [FieldToMatch \(p. 800\)](#) object

Required: Yes

RegexString

The string representing the regular expression.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: .*

Required: Yes

TextTransformations

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. If you specify one or more transformations in a rule statement, AWS WAF performs all transformations on the content of the request component identified by `FieldToMatch`, starting from the lowest priority setting, before inspecting the content for a match.

Type: Array of [TextTransformation \(p. 892\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexPatternSet

Service: AWS WAFV2

Contains one or more regular expressions.

AWS WAF assigns an ARN to each `RegexPatternSet` that you create. To use a set in a rule, you provide the ARN to the [Rule \(p. 868\)](#) statement [RegexPatternSetReferenceStatement \(p. 864\)](#).

Contents

ARN

The Amazon Resource Name (ARN) of the entity.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\$.*`

Required: No

Description

A description of the set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\\\$]+[\w+=:#@/\-,\.]\$`

Required: No

Id

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}){3}[0-9a-f]{12}\$`

Required: No

Name

The name of the set. You cannot change the name after you create the set.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[\w\-\-]+\$`

Required: No

RegularExpressionList

The regular expression patterns in the set.

Type: Array of [Regex \(p. 860\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexPatternSetReferenceStatement

Service: AWS WAFV2

A rule statement used to search web request components for matches with regular expressions. To use this, create a [RegexPatternSet \(p. 862\)](#) that specifies the expressions that you want to detect, then use the ARN of that set in this statement. A web request matches the pattern set rule statement if the request component matches any of the patterns in the set. To create a regex pattern set, see [CreateRegexPatternSet \(p. 27\)](#).

Each regex pattern set rule statement references a regex pattern set. You create and maintain the set independent of your rules. This allows you to use the single set in multiple rules. When you update the referenced set, AWS WAF automatically updates all rules that reference it.

Contents

ARN

The Amazon Resource Name (ARN) of the [RegexPatternSet \(p. 862\)](#) that this statement references.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\s.*`

Required: Yes

FieldToMatch

The part of the web request that you want AWS WAF to inspect.

Type: [FieldToMatch \(p. 800\)](#) object

Required: Yes

TextTransformations

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. If you specify one or more transformations in a rule statement, AWS WAF performs all transformations on the content of the request component identified by `FieldToMatch`, starting from the lowest priority setting, before inspecting the content for a match.

Type: Array of [TextTransformation \(p. 892\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexPatternSetSummary

Service: AWS WAFV2

High-level information about a [RegexPatternSet \(p. 862\)](#), returned by operations like create and list. This provides information like the ID, that you can use to retrieve and manage a RegexPatternSet, and the ARN, that you provide to the [RegexPatternSetReferenceStatement \(p. 864\)](#) to use the pattern set in a [Rule \(p. 868\)](#).

Contents

ARN

The Amazon Resource Name (ARN) of the entity.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\$.*`

Required: No

Description

A description of the set that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\$]+[\w+=:#@/\-,\.]\$`

Required: No

Id

A unique identifier for the set. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$`

Required: No

LockToken

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}\$`

Required: No

Name

The name of the data type instance. You cannot change the name after you create the instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\w\-\]+\$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ReleaseSummary

Service: AWS WAFV2

High level information for an SDK release.

Contents

ReleaseVersion

The release version.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: ^[\w#:\.\\-/\]+\$

Required: No

Timestamp

The timestamp of the release.

Type: Timestamp

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Rule

Service: AWS WAFV2

A single rule, which you can use in a [WebACL \(p. 900\)](#) or [RuleGroup \(p. 872\)](#) to identify web requests that you want to allow, block, or count. Each rule includes one top-level [Statement \(p. 886\)](#) that AWS WAF uses to identify matching web requests, and parameters that govern how AWS WAF handles them.

Contents

Action

The action that AWS WAF should take on a web request when it matches the rule statement. Settings at the web ACL level can override the rule action setting.

This is used only for rules whose statements do not reference a rule group. Rule statements that reference a rule group include `RuleGroupReferenceStatement` and `ManagedRuleGroupStatement`.

You must specify either this `Action` setting or the rule `OverrideAction` setting, but not both:

- If the rule statement does not reference a rule group, use this rule action setting and not the rule override action setting.
- If the rule statement references a rule group, use the override action setting and not this action setting.

Type: [RuleAction \(p. 871\)](#) object

Required: No

CaptchaConfig

Specifies how AWS WAF should handle CAPTCHA evaluations. If you don't specify this, AWS WAF uses the CAPTCHA configuration that's defined for the web ACL.

Type: [CaptchaConfig \(p. 786\)](#) object

Required: No

Name

The name of the rule. You can't change the name of a `Rule` after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[\w\-\]+$`

Required: Yes

OverrideAction

The action to use in the place of the action that results from the rule group evaluation. Set the override action to `none` to leave the result of the rule group alone. Set it to `count` to override the result to count only.

You can only use this for rule statements that reference a rule group, like `RuleGroupReferenceStatement` and `ManagedRuleGroupStatement`.

Note

This option is usually set to `none`. It does not affect how the rules in the rule group are evaluated. If you want the rules in the rule group to only count matches, do not use this and instead exclude those rules in your rule group reference statement settings.

Type: [OverrideAction \(p. 854\)](#) object

Required: No

Priority

If you define more than one Rule in a WebACL, AWS WAF evaluates each request against the Rules in order based on the value of Priority. AWS WAF processes rules with lower priority first. The priorities don't need to be consecutive, but they must all be different.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

RuleLabels

Labels to apply to web requests that match the rule match statement. AWS WAF applies fully qualified labels to matching web requests. A fully qualified label is the concatenation of a label namespace and a rule label. The rule's rule group or web ACL defines the label namespace.

Rules that run after this rule in the web ACL can match against these labels using a LabelMatchStatement.

For each label, provide a case-sensitive string containing optional namespaces and a label name, according to the following guidelines:

- Separate each component of the label with a colon.
- Each namespace or name can have up to 128 characters.
- You can specify up to 5 namespaces in a label.
- Don't use the following reserved words in your label specification: aws, waf, managed, rulegroup, webacl, regexpatternset, or ipset.

For example, myLabelName or nameSpace1:nameSpace2:myLabelName.

Type: Array of [Label \(p. 828\)](#) objects

Required: No

Statement

The AWS WAF processing statement for the rule, for example [ByteMatchStatement \(p. 783\)](#) or [SizeConstraintStatement \(p. 883\)](#).

Type: [Statement \(p. 886\)](#) object

Required: Yes

VisibilityConfig

Defines and enables Amazon CloudWatch metrics and web request sample collection.

Type: [VisibilityConfig \(p. 899\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RuleAction

Service: AWS WAFV2

The action that AWS WAF should take on a web request when it matches a rule's statement. Settings at the web ACL level can override the rule action setting.

Contents

Allow

Instructs AWS WAF to allow the web request.

Type: [AllowAction \(p. 778\)](#) object

Required: No

Block

Instructs AWS WAF to block the web request.

Type: [BlockAction \(p. 781\)](#) object

Required: No

Captcha

Instructs AWS WAF to run a CAPTCHA check against the web request.

Type: [CaptchaAction \(p. 785\)](#) object

Required: No

Count

Instructs AWS WAF to count the web request and allow it.

Type: [CountAction \(p. 792\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RuleGroup

Service: AWS WAFV2

A rule group defines a collection of rules to inspect and control web requests that you can use in a [WebACL \(p. 900\)](#). When you create a rule group, you define an immutable capacity limit. If you update a rule group, you must stay within the capacity. This allows others to reuse the rule group with confidence in its capacity requirements.

Contents

ARN

The Amazon Resource Name (ARN) of the entity.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\S.*`

Required: Yes

AvailableLabels

The labels that one or more rules in this rule group add to matching web requests. These labels are defined in the `RuleLabels` for a [Rule \(p. 868\)](#).

Type: Array of [LabelSummary \(p. 831\)](#) objects

Required: No

Capacity

The web ACL capacity units (WCUs) required for this rule group.

When you create your own rule group, you define this, and you cannot change it after creation.

When you add or modify the rules in a rule group, AWS WAF enforces this limit. You can check the capacity for a set of rules using [CheckCapacity \(p. 12\)](#).

AWS WAF uses WCUs to calculate and control the operating resources that are used to run your rules, rule groups, and web ACLs. AWS WAF calculates capacity differently for each rule type, to reflect the relative cost of each rule. Simple rules that cost little to run use fewer WCUs than more complex rules that use more processing power. Rule group capacity is fixed at creation, which helps users plan their web ACL WCU usage when they use a rule group. The WCU limit for web ACLs is 1,500.

Type: Long

Valid Range: Minimum value of 1.

Required: Yes

ConsumedLabels

The labels that one or more rules in this rule group match against in label match statements. These labels are defined in a `LabelMatchStatement` specification, in the [Statement \(p. 886\)](#) definition of a rule.

Type: Array of [LabelSummary \(p. 831\)](#) objects

Required: No

CustomResponseBodies

A map of custom response keys and content bodies. When you create a rule with a block action, you can send a custom response to the web request. You define these for the rule group, and then use them in the rules that you define in the rule group.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](#) in the [AWS WAF Developer Guide](#).

For information about the limits on count and size for custom request and response settings, see [AWS WAF quotas](#) in the [AWS WAF Developer Guide](#).

Type: String to [CustomResponseBody](#) (p. 797) object map

Map Entries: Maximum number of items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: ^[\w\-\]+\$

Required: No

Description

A description of the rule group that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\s]+[\w+=:#@/\-,\.]\$

Required: No

Id

A unique identifier for the rule group. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: ^[0-9a-f]{8}-(:[0-9a-f]{4})-{3}[0-9a-f]{12}\$

Required: Yes

LabelNamespace

The label namespace prefix for this rule group. All labels added by rules in this rule group have this prefix.

- The syntax for the label namespace prefix for your rule groups is the following:

awswaf:<account ID>:rulegroup:<rule group name>:

- When a rule with a label matches a web request, AWS WAF adds the fully qualified label to the request. A fully qualified label is made up of the label namespace from the rule group or web ACL where the rule is defined and the label from the rule, separated by a colon:

<label namespace>:<label from rule>

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^[0-9A-Za-z_\-\:]++\$

Required: No

Name

The name of the rule group. You cannot change the name of a rule group after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\w\-\-]+\$

Required: Yes

Rules

The [Rule \(p. 868\)](#) statements used to identify the web requests that you want to allow, block, or count. Each rule includes one top-level statement that AWS WAF uses to identify matching web requests, and parameters that govern how AWS WAF handles them.

Type: Array of [Rule \(p. 868\)](#) objects

Required: No

VisibilityConfig

Defines and enables Amazon CloudWatch metrics and web request sample collection.

Type: [VisibilityConfig \(p. 899\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RuleGroupReferenceStatement

Service: AWS WAFV2

A rule statement used to run the rules that are defined in a [RuleGroup \(p. 872\)](#). To use this, create a rule group with your rules, then provide the ARN of the rule group in this statement.

You cannot nest a `RuleGroupReferenceStatement`, for example for use inside a `NotStatement` or `OrStatement`. You can only use a rule group reference statement at the top level inside a web ACL.

Contents

ARN

The Amazon Resource Name (ARN) of the entity.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\S.*`

Required: Yes

ExcludedRules

The rules in the referenced rule group whose actions are set to `Count`. When you exclude a rule, AWS WAF evaluates it exactly as it would if the rule action setting were `Count`. This is a useful option for testing the rules in a rule group without modifying how they handle your web traffic.

Type: Array of [ExcludedRule \(p. 799\)](#) objects

Array Members: Maximum number of 100 items.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RuleGroupSummary

Service: AWS WAFV2

High-level information about a [RuleGroup \(p. 872\)](#), returned by operations like create and list. This provides information like the ID, that you can use to retrieve and manage a RuleGroup, and the ARN, that you provide to the [RuleGroupReferenceStatement \(p. 875\)](#) to use the rule group in a [Rule \(p. 868\)](#).

Contents

ARN

The Amazon Resource Name (ARN) of the entity.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\$.*`

Required: No

Description

A description of the rule group that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\$]+[\w+=:#@/\-,\.]$`

Required: No

Id

A unique identifier for the rule group. This ID is returned in the responses to create and list commands. You provide it to operations like update and delete.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: No

LockToken

A token used for optimistic locking. AWS WAF returns a token to your get and list requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like update and delete. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another get, and use the new token returned by that operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: No

Name

The name of the data type instance. You cannot change the name after you create the instance.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\w\-\]+\$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RuleSummary

Service: AWS WAFV2

High-level information about a [Rule \(p. 868\)](#), returned by operations like [DescribeManagedRuleGroup \(p. 77\)](#). This provides information like the ID, that you can use to retrieve and manage a RuleGroup, and the ARN, that you provide to the [RuleGroupReferenceStatement \(p. 875\)](#) to use the rule group in a [Rule \(p. 868\)](#).

Contents

Action

The action that AWS WAF should take on a web request when it matches a rule's statement. Settings at the web ACL level can override the rule action setting.

Type: [RuleAction \(p. 871\)](#) object

Required: No

Name

The name of the rule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `^[\w\-\]+$`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SampledHTTPRequest

Service: AWS WAFV2

Represents a single sampled web request. The response from [GetSampledRequests \(p. 118\)](#) includes a SampledHTTPRequests complex type that appears as SampledRequests in the response syntax. SampledHTTPRequests contains an array of SampledHTTPRequest objects.

Contents

Action

The action for the Rule that the request matched: Allow, Block, or Count.

Type: String

Required: No

CaptchaResponse

The CAPTCHA response for the request.

Type: [CaptchaResponse \(p. 787\)](#) object

Required: No

Labels

Labels applied to the web request by matching rules. AWS WAF applies fully qualified labels to matching web requests. A fully qualified label is the concatenation of a label namespace and a rule label. The rule's rule group or web ACL defines the label namespace.

For example,

`awswaf:111122223333:myRuleGroup:testRules:testNS1:testNS2:labelNameA` or
`awswaf:managed:aws:managed-rule-set:header:encoding:utf8`.

Type: Array of [Label \(p. 828\)](#) objects

Required: No

Request

A complex type that contains detailed information about the request.

Type: [HTTPRequest \(p. 815\)](#) object

Required: Yes

RequestHeadersInserted

Custom request headers inserted by AWS WAF into the request, according to the custom request configuration for the matching rule action.

Type: Array of [HTTPHeader \(p. 814\)](#) objects

Required: No

ResponseCodeSent

The response code that was sent for the request.

Type: Integer

Valid Range: Minimum value of 200. Maximum value of 599.

Required: No

RuleNameWithinRuleGroup

The name of the Rule that the request matched. For managed rule groups, the format for this name is <vendor name>#<managed rule group name>#<rule name>. For your own rule groups, the format for this name is <rule group name>#<rule name>. If the rule is not in a rule group, this field is absent.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\w\-\]+\$

Required: No

Timestamp

The time at which AWS WAF received the request from your AWS resource, in Unix time format (in seconds).

Type: Timestamp

Required: No

Weight

A value that indicates how one result in the response relates proportionally to other results in the response. For example, a result that has a weight of 2 represents roughly twice as many web requests as a result that has a weight of 1.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SingleHeader

Service: AWS WAFV2

Inspect one of the headers in the web request, identified by name, for example, `User-Agent` or `Referer`. The name isn't case sensitive.

You can filter and inspect all headers with the `FieldToMatch` setting `Headers`.

This is used to indicate the web request component to inspect, in the [FieldToMatch \(p. 800\)](#) specification.

Example JSON: `"SingleHeader": { "Name": "haystack" }`

Contents

Name

The name of the query header to inspect.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SingleQueryArgument

Service: AWS WAFV2

Inspect one query argument in the web request, identified by name, for example *UserName* or *SalesRegion*. The name isn't case sensitive.

This is used to indicate the web request component to inspect, in the [FieldToMatch \(p. 800\)](#) specification.

Example JSON: "SingleQueryArgument": { "Name": "myArgument" }

Contents

Name

The name of the query argument to inspect.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SizeConstraintStatement

Service: AWS WAFV2

A rule statement that compares a number of bytes against the size of a request component, using a comparison operator, such as greater than (>) or less than (<). For example, you can use a size constraint statement to look for query strings that are longer than 100 bytes.

If you configure AWS WAF to inspect the request body, AWS WAF inspects only the first 8192 bytes (8 KB). If the request body for your web requests never exceeds 8192 bytes, you could use a size constraint statement to block requests that have a request body greater than 8192 bytes.

If you choose URI for the value of Part of the request to filter on, the slash (/) in the URI counts as one character. For example, the URI /logo.jpg is nine characters long.

Contents

ComparisonOperator

The operator to use to compare the request part to the size setting.

Type: String

Valid Values: EQ | NE | LE | LT | GE | GT

Required: Yes

FieldToMatch

The part of the web request that you want AWS WAF to inspect.

Type: [FieldToMatch \(p. 800\)](#) object

Required: Yes

Size

The size, in byte, to compare to the request part, after any transformations.

Type: Long

Valid Range: Minimum value of 0. Maximum value of 21474836480.

Required: Yes

TextTransformations

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. If you specify one or more transformations in a rule statement, AWS WAF performs all transformations on the content of the request component identified by `FieldToMatch`, starting from the lowest priority setting, before inspecting the content for a match.

Type: Array of [TextTransformation \(p. 892\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SqlMatchStatement

Service: AWS WAFV2

A rule statement that inspects for malicious SQL code. Attackers insert malicious SQL code into web requests to do things like modify your database or extract data from it.

Contents

FieldToMatch

The part of the web request that you want AWS WAF to inspect.

Type: [FieldToMatch \(p. 800\)](#) object

Required: Yes

TextTransformations

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. If you specify one or more transformations in a rule statement, AWS WAF performs all transformations on the content of the request component identified by `FieldToMatch`, starting from the lowest priority setting, before inspecting the content for a match.

Type: Array of [TextTransformation \(p. 892\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Statement

Service: AWS WAFV2

The processing guidance for a [Rule \(p. 868\)](#), used by AWS WAF to determine whether a web request matches the rule.

Contents

AndStatement

A logical rule statement used to combine other rule statements with AND logic. You provide more than one [Statement \(p. 886\)](#) within the `AndStatement`.

Type: [AndStatement \(p. 780\)](#) object

Required: No

ByteMatchStatement

A rule statement that defines a string match search for AWS WAF to apply to web requests. The byte match statement provides the bytes to search for, the location in requests that you want AWS WAF to search, and other settings. The bytes to search for are typically a string that corresponds with ASCII characters. In the AWS WAF console and the developer guide, this is called a string match statement.

Type: [ByteMatchStatement \(p. 783\)](#) object

Required: No

GeoMatchStatement

A rule statement used to identify web requests based on country of origin.

Type: [GeoMatchStatement \(p. 809\)](#) object

Required: No

IPSetReferenceStatement

A rule statement used to detect web requests coming from particular IP addresses or address ranges. To use this, create an [IPSet \(p. 818\)](#) that specifies the addresses you want to detect, then use the ARN of that set in this statement. To create an IP set, see [CreateIPSet \(p. 23\)](#).

Each IP set rule statement references an IP set. You create and maintain the set independent of your rules. This allows you to use the single set in multiple rules. When you update the referenced set, AWS WAF automatically updates all rules that reference it.

Type: [IPSetReferenceStatement \(p. 822\)](#) object

Required: No

LabelMatchStatement

A rule statement that defines a string match search against labels that have been added to the web request by rules that have already run in the web ACL.

The label match statement provides the label or namespace string to search for. The label string can represent a part or all of the fully qualified label name that had been added to the web request. Fully qualified labels have a prefix, optional namespaces, and label name. The prefix identifies the rule group or web ACL context of the rule that added the label. If you do not provide the fully qualified name in your label match string, AWS WAF performs the search for labels that were added in the same context as the label match statement.

Type: [LabelMatchStatement \(p. 829\)](#) object

Required: No

ManagedRuleGroupStatement

A rule statement used to run the rules that are defined in a managed rule group. To use this, provide the vendor name and the name of the rule group in this statement. You can retrieve the required names by calling [ListAvailableManagedRuleGroups \(p. 172\)](#).

You cannot nest a ManagedRuleGroupStatement, for example for use inside a NotStatement or OrStatement. It can only be referenced as a top-level statement within a rule.

Type: [ManagedRuleGroupStatement \(p. 837\)](#) object

Required: No

NotStatement

A logical rule statement used to negate the results of another rule statement. You provide one [Statement \(p. 886\)](#) within the NotStatement.

Type: [NotStatement \(p. 852\)](#) object

Required: No

OrStatement

A logical rule statement used to combine other rule statements with OR logic. You provide more than one [Statement \(p. 886\)](#) within the OrStatement.

Type: [OrStatement \(p. 853\)](#) object

Required: No

RateBasedStatement

A rate-based rule tracks the rate of requests for each originating IP address, and triggers the rule action when the rate exceeds a limit that you specify on the number of requests in any 5-minute time span. You can use this to put a temporary block on requests from an IP address that is sending excessive requests.

AWS WAF tracks and manages web requests separately for each instance of a rate-based rule that you use. For example, if you provide the same rate-based rule settings in two web ACLs, each of the two rule statements represents a separate instance of the rate-based rule and gets its own tracking and management by AWS WAF. If you define a rate-based rule inside a rule group, and then use that rule group in multiple places, each use creates a separate instance of the rate-based rule that gets its own tracking and management by AWS WAF.

When the rule action triggers, AWS WAF blocks additional requests from the IP address until the request rate falls below the limit.

You can optionally nest another statement inside the rate-based statement, to narrow the scope of the rule so that it only counts requests that match the nested statement. For example, based on recent requests that you have seen from an attacker, you might create a rate-based rule with a nested AND rule statement that contains the following nested statements:

- An IP match statement with an IP set that specified the address 192.0.2.44.
- A string match statement that searches in the User-Agent header for the string BadBot.

In this rate-based rule, you also define a rate limit. For this example, the rate limit is 1,000. Requests that meet the criteria of both of the nested statements are counted. If the count exceeds 1,000 requests per five minutes, the rule action triggers. Requests that do not meet the criteria of both of the nested statements are not counted towards the rate limit and are not affected by this rule.

You cannot nest a `RateBasedStatement` inside another statement, for example inside a `NotStatement` or `OrStatement`. You can define a `RateBasedStatement` inside a web ACL and inside a rule group.

Type: [RateBasedStatement \(p. 857\)](#) object

Required: No

RegexMatchStatement

A rule statement used to search web request components for a match against a single regular expression.

Type: [RegexMatchStatement \(p. 861\)](#) object

Required: No

RegexPatternSetReferenceStatement

A rule statement used to search web request components for matches with regular expressions. To use this, create a [RegexPatternSet \(p. 862\)](#) that specifies the expressions that you want to detect, then use the ARN of that set in this statement. A web request matches the pattern set rule statement if the request component matches any of the patterns in the set. To create a regex pattern set, see [CreateRegexPatternSet \(p. 27\)](#).

Each regex pattern set rule statement references a regex pattern set. You create and maintain the set independent of your rules. This allows you to use the single set in multiple rules. When you update the referenced set, AWS WAF automatically updates all rules that reference it.

Type: [RegexPatternSetReferenceStatement \(p. 864\)](#) object

Required: No

RuleGroupReferenceStatement

A rule statement used to run the rules that are defined in a [RuleGroup \(p. 872\)](#). To use this, create a rule group with your rules, then provide the ARN of the rule group in this statement.

You cannot nest a `RuleGroupReferenceStatement`, for example for use inside a `NotStatement` or `OrStatement`. You can only use a rule group reference statement at the top level inside a web ACL.

Type: [RuleGroupReferenceStatement \(p. 875\)](#) object

Required: No

SizeConstraintStatement

A rule statement that compares a number of bytes against the size of a request component, using a comparison operator, such as greater than (`>`) or less than (`<`). For example, you can use a size constraint statement to look for query strings that are longer than 100 bytes.

If you configure AWS WAF to inspect the request body, AWS WAF inspects only the first 8192 bytes (8 KB). If the request body for your web requests never exceeds 8192 bytes, you could use a size constraint statement to block requests that have a request body greater than 8192 bytes.

If you choose URI for the value of Part of the request to filter on, the slash (/) in the URI counts as one character. For example, the URI `/logo.jpg` is nine characters long.

Type: [SizeConstraintStatement \(p. 883\)](#) object

Required: No

SqliMatchStatement

A rule statement that inspects for malicious SQL code. Attackers insert malicious SQL code into web requests to do things like modify your database or extract data from it.

Type: [SqliMatchStatement \(p. 885\)](#) object

Required: No

XssMatchStatement

A rule statement that inspects for cross-site scripting (XSS) attacks. In XSS attacks, the attacker uses vulnerabilities in a benign website as a vehicle to inject malicious client-site scripts into other legitimate web browsers.

Type: [XssMatchStatement \(p. 906\)](#) object

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Tag

Service: AWS WAFV2

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.

You can tag the AWS resources that you manage through AWS WAF: web ACLs, rule groups, IP sets, and regex pattern sets. You can't manage or view tags through the AWS WAF console.

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.

Pattern: `^([\p{L}\p{Z}]\p{N}_.:/=+\-@]*$)`

Required: Yes

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.

Pattern: `^([\p{L}\p{Z}]\p{N}_.:/=+\-@]*$)`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

TagInfoForResource

Service: AWS WAFV2

The collection of tagging definitions for 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.

You can tag the AWS resources that you manage through AWS WAF: web ACLs, rule groups, IP sets, and regex pattern sets. You can't manage or view tags through the AWS WAF console.

Contents

ResourceARN

The Amazon Resource Name (ARN) of the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\s.*

Required: No

TagList

The array of [Tag \(p. 890\)](#) objects defined for the resource.

Type: Array of [Tag \(p. 890\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

TextTransformation

Service: AWS WAFV2

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection.

Contents

Priority

Sets the relative processing order for multiple transformations that are defined for a rule statement. AWS WAF processes all transformations, from lowest priority to highest, before inspecting the transformed content. The priorities don't need to be consecutive, but they must all be different.

Type: Integer

Valid Range: Minimum value of 0.

Required: Yes

Type

You can specify the following transformation types:

BASE64_DECODE - Decode a Base64-encoded string.

BASE64_DECODE_EXT - Decode a Base64-encoded string, but use a forgiving implementation that ignores characters that aren't valid.

CMD_LINE - Command-line transformations. These are helpful in reducing effectiveness of attackers who inject an operating system command-line command and use unusual formatting to disguise some or all of the command.

- Delete the following characters: \ " ' ^
- Delete spaces before the following characters: / (
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

COMPRESS_WHITE_SPACE - Replace these characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- Non-breaking space, decimal 160

COMPRESS_WHITE_SPACE also replaces multiple spaces with one space.

CSS_DECODE - Decode characters that were encoded using CSS 2.x escape rules `syndata.html#characters`. This function uses up to two bytes in the decoding process, so it can help to uncover ASCII characters that were encoded using CSS encoding that wouldn't typically be encoded. It's also useful in countering evasion, which is a combination of a backslash and non-hexadecimal characters. For example, `ja\vascript` for javascript.

ESCAPE_SEQ_DECODE - Decode the following ANSI C escape sequences: \a, \b, \f, \n, \r, \t, \v, \\, \?, \', \", \xHH (hexadecimal), \ooo (octal). Encodings that aren't valid remain in the output.

HEX_DECODE - Decode a string of hexadecimal characters into a binary.

HTML_ENTITY_DECODE - Replace HTML-encoded characters with unencoded characters.

HTML_ENTITY_DECODE performs these operations:

- Replaces `(ampersand)quot;` with `"`
- Replaces `(ampersand)nbsps;` with a non-breaking space, decimal 160
- Replaces `(ampersand)lt;` with a "less than" symbol
- Replaces `(ampersand)gt;` with `>`
- Replaces characters that are represented in hexadecimal format, `(ampersand)#xhhhh;`, with the corresponding characters
- Replaces characters that are represented in decimal format, `(ampersand)#nnnn;`, with the corresponding characters

JS_DECODE - Decode JavaScript escape sequences. If a `\u HHHH` code is in the full-width ASCII code range of `FF01–FF5E`, then the higher byte is used to detect and adjust the lower byte. If not, only the lower byte is used and the higher byte is zeroed, causing a possible loss of information.

LOWERCASE - Convert uppercase letters (A-Z) to lowercase (a-z).

MD5 - Calculate an MD5 hash from the data in the input. The computed hash is in a raw binary form.

NONE - Specify `NONE` if you don't want any text transformations.

NORMALIZE_PATH - Remove multiple slashes, directory self-references, and directory back-references that are not at the beginning of the input from an input string.

NORMALIZE_PATH_WIN - This is the same as `NORMALIZE_PATH`, but first converts backslash characters to forward slashes.

REMOVE_NULLS - Remove all `NULL` bytes from the input.

REPLACE_COMMENTS - Replace each occurrence of a C-style comment `(/* ... */)` with a single space. Multiple consecutive occurrences are not compressed. Unterminated comments are also replaced with a space (ASCII `0x20`). However, a standalone termination of a comment `(* /)` is not acted upon.

REPLACE_NULLS - Replace `NULL` bytes in the input with space characters (ASCII `0x20`).

SQL_HEX_DECODE - Decode SQL hex data. Example `(0x414243)` will be decoded to `(ABC)`.

URL_DECODE - Decode a URL-encoded value.

URL_DECODE_UNI - Like `URL_DECODE`, but with support for Microsoft-specific `%u` encoding. If the code is in the full-width ASCII code range of `FF01–FF5E`, the higher byte is used to detect and adjust the lower byte. Otherwise, only the lower byte is used and the higher byte is zeroed.

UTF8_TO_UNICODE - Convert all UTF-8 character sequences to Unicode. This helps input normalization, and minimizing false-positives and false-negatives for non-English languages.

Type: String

Valid Values: `NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE | BASE64_DECODE | HEX_DECODE | MD5 | REPLACE_COMMENTS | ESCAPE_SEQ_DECODE | SQL_HEX_DECODE | CSS_DECODE | JS_DECODE | NORMALIZE_PATH | NORMALIZE_PATH_WIN | REMOVE_NULLS | REPLACE_NULLS | BASE64_DECODE_EXT | URL_DECODE_UNI | UTF8_TO_UNICODE`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

TimeWindow

Service: AWS WAFV2

In a [GetSampledRequests \(p. 118\)](#) request, the `StartTime` and `EndTime` objects specify the time range for which you want AWS WAF to return a sample of web requests.

You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, `Z`. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

In a [GetSampledRequests \(p. 118\)](#) response, the `StartTime` and `EndTime` objects specify the time range for which AWS WAF actually returned a sample of web requests. AWS WAF gets the specified number of requests from among the first 5,000 requests that your AWS resource receives during the specified time period. If your resource receives more than 5,000 requests during that period, AWS WAF stops sampling after the 5,000th request. In that case, `EndTime` is the time that AWS WAF received the 5,000th request.

Contents

EndTime

The end of the time range from which you want `GetSampledRequests` to return a sample of the requests that your AWS resource received. You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, `Z`. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: Timestamp

Required: Yes

StartTime

The beginning of the time range from which you want `GetSampledRequests` to return a sample of the requests that your AWS resource received. You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, `Z`. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: Timestamp

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

UriPath

Service: AWS WAFV2

Inspect the path component of the URI of the web request. This is the part of the web request that identifies a resource. For example, /images/daily-ad.jpg.

This is used only in the [FieldToMatch \(p. 800\)](#) specification for some web request component types.

JSON specification: "UriPath": {}

Contents

The members of this 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

UsernameField

Service: AWS WAFV2

Details about your login page username field, used in a `ManagedRuleGroupConfig`.

Contents

Identifier

The name of the username field. For example `/form/username`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

VersionToPublish

Service: AWS WAFV2

A version of the named managed rule group, that the rule group's vendor publishes for use by customers.

Note

This is intended for use only by vendors of managed rule sets. Vendors are AWS and AWS Marketplace sellers.

Vendors, you can use the managed rule set APIs to provide controlled rollout of your versioned managed rule group offerings for your customers. The APIs are `ListManagedRuleSets`, `GetManagedRuleSet`, `PutManagedRuleSetVersions`, and `UpdateManagedRuleSetVersionExpiryDate`.

Contents

AssociatedRuleGroupArn

The Amazon Resource Name (ARN) of the vendor's rule group that's used in the published managed rule group version.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\S.*`

Required: No

ForecastedLifetime

The amount of time the vendor expects this version of the managed rule group to last, in days.

Type: Integer

Valid Range: Minimum value of 1.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

VisibilityConfig

Service: AWS WAFV2

Defines and enables Amazon CloudWatch metrics and web request sample collection.

Contents

CloudWatchMetricsEnabled

A boolean indicating whether the associated resource sends metrics to Amazon CloudWatch. For the list of available metrics, see [AWS WAF Metrics](#).

Type: Boolean

Required: Yes

MetricName

A name of the Amazon CloudWatch metric. The name can contain only the characters: A-Z, a-z, 0-9, - (hyphen), and _ (underscore). The name can be from one to 128 characters long. It can't contain whitespace or metric names reserved for AWS WAF, for example "All" and "Default_Action."

Type: String

Length Constraints: Minimum length of 1. Maximum length of 255.

Pattern: ^[\w#:\.\/-]+\$

Required: Yes

SampledRequestsEnabled

A boolean indicating whether AWS WAF should store a sampling of the web requests that match the rules. You can view the sampled requests through the AWS WAF console.

Type: Boolean

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

WebACL

Service: AWS WAFV2

A web ACL defines a collection of rules to use to inspect and control web requests. Each rule has an action defined (allow, block, or count) for requests that match the statement of the rule. In the web ACL, you assign a default action to take (allow, block) for any request that does not match any of the rules. The rules in a web ACL can be a combination of the types [Rule \(p. 868\)](#), [RuleGroup \(p. 872\)](#), and managed rule group. You can associate a web ACL with one or more AWS resources to protect. The resources can be an Amazon CloudFront distribution, an Amazon API Gateway REST API, an Application Load Balancer, or an AWS AppSync GraphQL API.

Contents

ARN

The Amazon Resource Name (ARN) of the web ACL that you want to associate with the resource.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: .*\\$.*

Required: Yes

Capacity

The web ACL capacity units (WCUs) currently being used by this web ACL.

AWS WAF uses WCUs to calculate and control the operating resources that are used to run your rules, rule groups, and web ACLs. AWS WAF calculates capacity differently for each rule type, to reflect the relative cost of each rule. Simple rules that cost little to run use fewer WCUs than more complex rules that use more processing power. Rule group capacity is fixed at creation, which helps users plan their web ACL WCU usage when they use a rule group. The WCU limit for web ACLs is 1,500.

Type: Long

Valid Range: Minimum value of 0.

Required: No

CaptchaConfig

Specifies how AWS WAF should handle CAPTCHA evaluations for rules that don't have their own CaptchaConfig settings. If you don't specify this, AWS WAF uses its default settings for CaptchaConfig.

Type: [CaptchaConfig \(p. 786\)](#) object

Required: No

CustomResponseBodies

A map of custom response keys and content bodies. When you create a rule with a block action, you can send a custom response to the web request. You define these for the web ACL, and then use them in the rules and default actions that you define in the web ACL.

For information about customizing web requests and responses, see [Customizing web requests and responses in AWS WAF](#) in the [AWS WAF Developer Guide](#).

For information about the limits on count and size for custom request and response settings, see [AWS WAF quotas](#) in the [AWS WAF Developer Guide](#).

Type: String to [CustomResponseBody](#) (p. 797) object map

Map Entries: Maximum number of items.

Key Length Constraints: Minimum length of 1. Maximum length of 128.

Key Pattern: ^[\w\ -]+\$

Required: No

DefaultAction

The action to perform if none of the Rules contained in the WebACL match.

Type: [DefaultAction](#) (p. 798) object

Required: Yes

Description

A description of the web ACL that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: ^[\w+=:#@/\-,\.][\w+=:#@/\-,\.\\s]+[\w+=:#@/\-,\.]\$

Required: No

Id

A unique identifier for the WebACL. This ID is returned in the responses to create and list commands. You use this ID to do things like get, update, and delete a WebACL.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: ^[0-9a-f]{8}-(:[0-9a-f]{4})-{3}[0-9a-f]{12}\$

Required: Yes

LabelNamespace

The label namespace prefix for this web ACL. All labels added by rules in this web ACL have this prefix.

- The syntax for the label namespace prefix for a web ACL is the following:

awswaf:<account ID>:webacl:<web ACL name>:

- When a rule with a label matches a web request, AWS WAF adds the fully qualified label to the request. A fully qualified label is made up of the label namespace from the rule group or web ACL where the rule is defined and the label from the rule, separated by a colon:

<label namespace>:<label from rule>

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1024.

Pattern: ^[0-9A-Za-z_\-\:]\$

Required: No

ManagedByFirewallManager

Indicates whether this web ACL is managed by AWS Firewall Manager. If true, then only AWS Firewall Manager can delete the web ACL or any Firewall Manager rule groups in the web ACL.

Type: Boolean

Required: No

Name

The name of the web ACL. You cannot change the name of a web ACL after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\w\-\]+\$

Required: Yes

PostProcessFirewallManagerRuleGroups

The last set of rules for AWS WAF to process in the web ACL. This is defined in an AWS Firewall Manager WAF policy and contains only rule group references. You can't alter these. Any rules and rule groups that you define for the web ACL are prioritized before these.

In the Firewall Manager WAF policy, the Firewall Manager administrator can define a set of rule groups to run first in the web ACL and a set of rule groups to run last. Within each set, the administrator prioritizes the rule groups, to determine their relative processing order.

Type: Array of [FirewallManagerRuleGroup \(p. 804\)](#) objects

Required: No

PreProcessFirewallManagerRuleGroups

The first set of rules for AWS WAF to process in the web ACL. This is defined in an AWS Firewall Manager WAF policy and contains only rule group references. You can't alter these. Any rules and rule groups that you define for the web ACL are prioritized after these.

In the Firewall Manager WAF policy, the Firewall Manager administrator can define a set of rule groups to run first in the web ACL and a set of rule groups to run last. Within each set, the administrator prioritizes the rule groups, to determine their relative processing order.

Type: Array of [FirewallManagerRuleGroup \(p. 804\)](#) objects

Required: No

Rules

The [Rule \(p. 868\)](#) statements used to identify the web requests that you want to allow, block, or count. Each rule includes one top-level statement that AWS WAF uses to identify matching web requests, and parameters that govern how AWS WAF handles them.

Type: Array of [Rule \(p. 868\)](#) objects

Required: No

VisibilityConfig

Defines and enables Amazon CloudWatch metrics and web request sample collection.

Type: [VisibilityConfig \(p. 899\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

WebACLSummary

Service: AWS WAFV2

High-level information about a [WebACL \(p. 900\)](#), returned by operations like `create` and `list`. This provides information like the ID, that you can use to retrieve and manage a WebACL, and the ARN, that you provide to operations like [AssociateWebACL \(p. 9\)](#).

Contents

ARN

The Amazon Resource Name (ARN) of the entity.

Type: String

Length Constraints: Minimum length of 20. Maximum length of 2048.

Pattern: `.*\S.*`

Required: No

Description

A description of the web ACL that helps with identification.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 256.

Pattern: `^[\w+=:#@/\-,\.][\w+=:#@/\-,\.]\s+[\w+=:#@/\-,\.]$`

Required: No

Id

The unique identifier for the web ACL. This ID is returned in the responses to `create` and `list` commands. You provide it to operations like `update` and `delete`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: No

LockToken

A token used for optimistic locking. AWS WAF returns a token to your `get` and `list` requests, to mark the state of the entity at the time of the request. To make changes to the entity associated with the token, you provide the token to operations like `update` and `delete`. AWS WAF uses the token to ensure that no changes have been made to the entity since you last retrieved it. If a change has been made, the update fails with a `WAFOptimisticLockException`. If this happens, perform another `get`, and use the new token returned by that operation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 36.

Pattern: `^[0-9a-f]{8}-(?:[0-9a-f]{4}-){3}[0-9a-f]{12}$`

Required: No

Name

The name of the web ACL. You cannot change the name of a web ACL after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: ^[\w\-\]+\$

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

XssMatchStatement

Service: AWS WAFV2

A rule statement that inspects for cross-site scripting (XSS) attacks. In XSS attacks, the attacker uses vulnerabilities in a benign website as a vehicle to inject malicious client-site scripts into other legitimate web browsers.

Contents

FieldToMatch

The part of the web request that you want AWS WAF to inspect.

Type: [FieldToMatch \(p. 800\)](#) object

Required: Yes

TextTransformations

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass detection. If you specify one or more transformations in a rule statement, AWS WAF performs all transformations on the content of the request component identified by `FieldToMatch`, starting from the lowest priority setting, before inspecting the content for a match.

Type: Array of [TextTransformation \(p. 892\)](#) objects

Array Members: Minimum number of 1 item.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AWS WAF Classic

The following data types are supported by AWS WAF Classic:

- [ActivatedRule \(p. 909\)](#)
- [ByteMatchSet \(p. 912\)](#)
- [ByteMatchSetSummary \(p. 914\)](#)
- [ByteMatchSetUpdate \(p. 915\)](#)
- [ByteMatchTuple \(p. 916\)](#)
- [ExcludedRule \(p. 920\)](#)
- [FieldToMatch \(p. 921\)](#)
- [GeoMatchConstraint \(p. 923\)](#)
- [GeoMatchSet \(p. 925\)](#)

- [GeoMatchSetSummary \(p. 927\)](#)
- [GeoMatchSetUpdate \(p. 928\)](#)
- [HTTPHeader \(p. 929\)](#)
- [HTTPRequest \(p. 930\)](#)
- [IPSet \(p. 932\)](#)
- [IPSetDescriptor \(p. 934\)](#)
- [IPSetSummary \(p. 936\)](#)
- [IPSetUpdate \(p. 937\)](#)
- [LoggingConfiguration \(p. 938\)](#)
- [Predicate \(p. 940\)](#)
- [RateBasedRule \(p. 942\)](#)
- [RegexMatchSet \(p. 944\)](#)
- [RegexMatchSetSummary \(p. 946\)](#)
- [RegexMatchSetUpdate \(p. 947\)](#)
- [RegexMatchTuple \(p. 948\)](#)
- [RegexPatternSet \(p. 951\)](#)
- [RegexPatternSetSummary \(p. 953\)](#)
- [RegexPatternSetUpdate \(p. 954\)](#)
- [Rule \(p. 955\)](#)
- [RuleGroup \(p. 957\)](#)
- [RuleGroupSummary \(p. 959\)](#)
- [RuleGroupUpdate \(p. 960\)](#)
- [RuleSummary \(p. 961\)](#)
- [RuleUpdate \(p. 962\)](#)
- [SampledHTTPRequest \(p. 963\)](#)
- [SizeConstraint \(p. 965\)](#)
- [SizeConstraintSet \(p. 968\)](#)
- [SizeConstraintSetSummary \(p. 970\)](#)
- [SizeConstraintSetUpdate \(p. 971\)](#)
- [SqlInjectionMatchSet \(p. 972\)](#)
- [SqlInjectionMatchSetSummary \(p. 974\)](#)
- [SqlInjectionMatchSetUpdate \(p. 975\)](#)
- [SqlInjectionMatchTuple \(p. 976\)](#)
- [SubscribedRuleGroupSummary \(p. 978\)](#)
- [Tag \(p. 980\)](#)
- [TagInfoForResource \(p. 981\)](#)
- [TimeWindow \(p. 982\)](#)
- [WafAction \(p. 983\)](#)
- [WafOverrideAction \(p. 984\)](#)
- [WebACL \(p. 985\)](#)
- [WebACLSummary \(p. 987\)](#)
- [WebACLUpdate \(p. 988\)](#)
- [XssMatchSet \(p. 989\)](#)
- [XssMatchSetSummary \(p. 991\)](#)
- [XssMatchSetUpdate \(p. 992\)](#)
- [XssMatchTuple \(p. 993\)](#)

ActivatedRule

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The `ActivatedRule` object in an [UpdateWebACL \(p. 502\)](#) request specifies a `Rule` that you want to insert or delete, the priority of the `Rule` in the `WebACL`, and the action that you want AWS WAF to take when a web request matches the `Rule` (`ALLOW`, `BLOCK`, or `COUNT`).

To specify whether to insert or delete a `Rule`, use the `Action` parameter in the [WebACLUpdate \(p. 988\)](#) data type.

Contents

Action

Specifies the action that Amazon CloudFront or AWS WAF takes when a web request matches the conditions in the `Rule`. Valid values for `Action` include the following:

- `ALLOW`: CloudFront responds with the requested object.
- `BLOCK`: CloudFront responds with an HTTP 403 (Forbidden) status code.
- `COUNT`: AWS WAF increments a counter of requests that match the conditions in the rule and then continues to inspect the web request based on the remaining rules in the web ACL.

`ActivatedRule|OverrideAction` applies only when updating or adding a `RuleGroup` to a `WebACL`. In this case, you do not use `ActivatedRule|Action`. For all other update requests, `ActivatedRule|Action` is used instead of `ActivatedRule|OverrideAction`.

Type: [WafAction \(p. 983\)](#) object

Required: No

ExcludedRules

An array of rules to exclude from a rule group. This is applicable only when the `ActivatedRule` refers to a `RuleGroup`.

Sometimes it is necessary to troubleshoot rule groups that are blocking traffic unexpectedly (false positives). One troubleshooting technique is to identify the specific rule within the rule group that is blocking the legitimate traffic and then disable (exclude) that particular rule. You can exclude rules from both your own rule groups and AWS Marketplace rule groups that have been associated with a web ACL.

Specifying `ExcludedRules` does not remove those rules from the rule group. Rather, it changes the action for the rules to `COUNT`. Therefore, requests that match an `ExcludedRule` are counted but not blocked. The `RuleGroup` owner will receive `COUNT` metrics for each `ExcludedRule`.

If you want to exclude rules from a rule group that is already associated with a web ACL, perform the following steps:

1. Use the AWS WAF logs to identify the IDs of the rules that you want to exclude. For more information about the logs, see [Logging Web ACL Traffic Information](#).
2. Submit an [UpdateWebACL \(p. 502\)](#) request that has two actions:
 - The first action deletes the existing rule group from the web ACL. That is, in the [UpdateWebACL \(p. 502\)](#) request, the first `Updates:Action` should be `DELETE` and

Updates:ActivatedRule:RuleId should be the rule group that contains the rules that you want to exclude.

- The second action inserts the same rule group back in, but specifying the rules to exclude. That is, the second **Updates:Action** should be `INSERT`, **Updates:ActivatedRule:RuleId** should be the rule group that you just removed, and **ExcludedRules** should contain the rules that you want to exclude.

Type: Array of [ExcludedRule \(p. 920\)](#) objects

Required: No

OverrideAction

Use the **OverrideAction** to test your RuleGroup.

Any rule in a RuleGroup can potentially block a request. If you set the **OverrideAction** to `None`, the RuleGroup will block a request if any individual rule in the RuleGroup matches the request and is configured to block that request. However if you first want to test the RuleGroup, set the **OverrideAction** to `Count`. The RuleGroup will then override any block action specified by individual rules contained within the group. Instead of blocking matching requests, those requests will be counted. You can view a record of counted requests using [GetSampledRequests \(p. 385\)](#).

ActivatedRule|OverrideAction applies only when updating or adding a RuleGroup to a WebACL. In this case you do not use **ActivatedRule|Action**. For all other update requests, **ActivatedRule|Action** is used instead of **ActivatedRule|OverrideAction**.

Type: [WafOverrideAction \(p. 984\)](#) object

Required: No

Priority

Specifies the order in which the Rules in a WebACL are evaluated. Rules with a lower value for **Priority** are evaluated before Rules with a higher value. The value must be a unique integer. If you add multiple Rules to a WebACL, the values don't need to be consecutive.

Type: Integer

Required: Yes

RuleId

The **RuleId** for a Rule. You use **RuleId** to get more information about a Rule (see [GetRule \(p. 381\)](#)), update a Rule (see [UpdateRule \(p. 485\)](#)), insert a Rule into a WebACL or delete a one from a WebACL (see [UpdateWebACL \(p. 502\)](#)), or delete a Rule from AWS WAF (see [DeleteRule \(p. 339\)](#)).

RuleId is returned by [CreateRule \(p. 288\)](#) and by [ListRules \(p. 427\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

Type

The rule type, either `REGULAR`, as defined by [Rule \(p. 955\)](#), `RATE_BASED`, as defined by [RateBasedRule \(p. 942\)](#), or `GROUP`, as defined by [RuleGroup \(p. 957\)](#). The default is `REGULAR`. Although this field is optional, be aware that if you try to add a `RATE_BASED` rule to a web ACL

without setting the type, the [UpdateWebACL \(p. 502\)](#) request will fail because the request tries to add a REGULAR rule with the specified ID, which does not exist.

Type: String

Valid Values: `REGULAR` | `RATE_BASED` | `GROUP`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ByteMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In a [GetByteMatchSet \(p. 357\)](#) request, ByteMatchSet is a complex type that contains the ByteMatchSetId and Name of a ByteMatchSet, and the values that you specified when you updated the ByteMatchSet.

A complex type that contains ByteMatchTuple objects, which specify the parts of web requests that you want AWS WAF to inspect and the values that you want AWS WAF to search for. If a ByteMatchSet contains more than one ByteMatchTuple object, a request needs to match the settings in only one ByteMatchTuple to be considered a match.

Contents

ByteMatchSetId

The ByteMatchSetId for a ByteMatchSet. You use ByteMatchSetId to get information about a ByteMatchSet (see [GetByteMatchSet \(p. 357\)](#)), update a ByteMatchSet (see [UpdateByteMatchSet \(p. 459\)](#)), insert a ByteMatchSet into a Rule or delete one from a Rule (see [UpdateRule \(p. 485\)](#)), and delete a ByteMatchSet from AWS WAF (see [DeleteByteMatchSet \(p. 317\)](#)).

ByteMatchSetId is returned by [CreateByteMatchSet \(p. 266\)](#) and by [ListByteMatchSets \(p. 403\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: Yes

ByteMatchTuples

Specifies the bytes (typically a string that corresponds with ASCII characters) that you want AWS WAF to search for in web requests, the location in requests that you want AWS WAF to search, and other settings.

Type: Array of [ByteMatchTuple \(p. 916\)](#) objects

Required: Yes

Name

A friendly name or description of the [ByteMatchSet \(p. 912\)](#). You can't change Name after you create a ByteMatchSet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ByteMatchSetSummary

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returned by [ListByteMatchSets \(p. 403\)](#). Each `ByteMatchSetSummary` object includes the `Name` and `ByteMatchSetId` for one [ByteMatchSet \(p. 912\)](#).

Contents

ByteMatchSetId

The `ByteMatchSetId` for a `ByteMatchSet`. You use `ByteMatchSetId` to get information about a `ByteMatchSet`, update a `ByteMatchSet`, remove a `ByteMatchSet` from a `Rule`, and delete a `ByteMatchSet` from AWS WAF.

`ByteMatchSetId` is returned by [CreateByteMatchSet \(p. 266\)](#) and by [ListByteMatchSets \(p. 403\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\$.*`

Required: Yes

Name

A friendly name or description of the [ByteMatchSet \(p. 912\)](#). You can't change `Name` after you create a `ByteMatchSet`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\$.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ByteMatchSetUpdate

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In an [UpdateByteMatchSet \(p. 459\)](#) request, `ByteMatchSetUpdate` specifies whether to insert or delete a [ByteMatchTuple \(p. 916\)](#) and includes the settings for the `ByteMatchTuple`.

Contents

Action

Specifies whether to insert or delete a [ByteMatchTuple \(p. 916\)](#).

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

ByteMatchTuple

Information about the part of a web request that you want AWS WAF to inspect and the value that you want AWS WAF to search for. If you specify `DELETE` for the value of `Action`, the `ByteMatchTuple` values must exactly match the values in the `ByteMatchTuple` that you want to delete from the `ByteMatchSet`.

Type: [ByteMatchTuple \(p. 916\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ByteMatchTuple

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The bytes (typically a string that corresponds with ASCII characters) that you want AWS WAF to search for in web requests, the location in requests that you want AWS WAF to search, and other settings.

Contents

FieldToMatch

The part of a web request that you want AWS WAF to search, such as a specified header or a query string. For more information, see [FieldToMatch \(p. 921\)](#).

Type: [FieldToMatch \(p. 921\)](#) object

Required: Yes

PositionalConstraint

Within the portion of a web request that you want to search (for example, in the query string, if any), specify where you want AWS WAF to search. Valid values include the following:

CONTAINS

The specified part of the web request must include the value of `TargetString`, but the location doesn't matter.

CONTAINS_WORD

The specified part of the web request must include the value of `TargetString`, and `TargetString` must contain only alphanumeric characters or underscore (A-Z, a-z, 0-9, or `_`). In addition, `TargetString` must be a word, which means one of the following:

- `TargetString` exactly matches the value of the specified part of the web request, such as the value of a header.
- `TargetString` is at the beginning of the specified part of the web request and is followed by a character other than an alphanumeric character or underscore (`_`), for example, `BadBot;`.
- `TargetString` is at the end of the specified part of the web request and is preceded by a character other than an alphanumeric character or underscore (`_`), for example, `;BadBot`.
- `TargetString` is in the middle of the specified part of the web request and is preceded and followed by characters other than alphanumeric characters or underscore (`_`), for example, `-BadBot;`.

EXACTLY

The value of the specified part of the web request must exactly match the value of `TargetString`.

STARTS_WITH

The value of `TargetString` must appear at the beginning of the specified part of the web request.

ENDS_WITH

The value of `TargetString` must appear at the end of the specified part of the web request.

Type: String

Valid Values: EXACTLY | STARTS_WITH | ENDS_WITH | CONTAINS | CONTAINS_WORD

Required: Yes

TargetString

The value that you want AWS WAF to search for. AWS WAF searches for the specified string in the part of web requests that you specified in `FieldToMatch`. The maximum length of the value is 50 bytes.

Valid values depend on the values that you specified for `FieldToMatch`:

- `HEADER`: The value that you want AWS WAF to search for in the request header that you specified in [FieldToMatch \(p. 921\)](#), for example, the value of the `User-Agent` or `Referer` header.
- `METHOD`: The HTTP method, which indicates the type of operation specified in the request. Amazon CloudFront supports the following methods: `DELETE`, `GET`, `HEAD`, `OPTIONS`, `PATCH`, `POST`, and `PUT`.
- `QUERY_STRING`: The value that you want AWS WAF to search for in the query string, which is the part of a URL that appears after a `?` character.
- `URI`: The path component of the URI. This does not include the query string or fragment components of the URI. For information, see [Uniform Resource Identifier \(URI\): Generic Syntax](#).
- `BODY`: The part of a request that contains any additional data that you want to send to your web server as the HTTP request body, such as data from a form. The request body immediately follows the request headers. Note that only the first 8192 bytes of the request body are forwarded to AWS WAF for inspection. To allow or block requests based on the length of the body, you can create a size constraint set. For more information, see [CreateSizeConstraintSet \(p. 296\)](#).
- `SINGLE_QUERY_ARG`: The parameter in the query string that you will inspect, such as `UserName` or `SalesRegion`. The maximum length for `SINGLE_QUERY_ARG` is 30 characters.
- `ALL_QUERY_ARGS`: Similar to `SINGLE_QUERY_ARG`, but instead of inspecting a single parameter, AWS WAF inspects all parameters within the query string for the value or regex pattern that you specify in `TargetString`.

If `TargetString` includes alphabetic characters A-Z and a-z, note that the value is case sensitive.

If you're using the AWS WAF API

Specify a base64-encoded version of the value. The maximum length of the value before you base64-encode it is 50 bytes.

For example, suppose the value of `Type` is `HEADER` and the value of `Data` is `User-Agent`. If you want to search the `User-Agent` header for the value `BadBot`, you base64-encode `BadBot` using MIME base64-encoding and include the resulting value, `QmFlkQm90`, in the value of `TargetString`.

If you're using the AWS CLI or one of the AWS SDKs

The value that you want AWS WAF to search for. The SDK automatically base64 encodes the value.

Type: Base64-encoded binary data object

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on `FieldToMatch` before inspecting it for a match.

You can only specify a single type of TextTransformation.

CMD_LINE

When you're concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \ " ' ^
- Delete spaces before the following characters: / (
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

COMPRESS_WHITE_SPACE

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

COMPRESS_WHITE_SPACE also replaces multiple spaces with one space.

HTML_ENTITY_DECODE

Use this option to replace HTML-encoded characters with unencoded characters.

HTML_ENTITY_DECODE performs the following operations:

- Replaces " with "
- Replaces with a non-breaking space, decimal 160
- Replaces < with a "less than" symbol
- Replaces > with >
- Replaces characters that are represented in hexadecimal format, &#xhhhh;, with the corresponding characters
- Replaces characters that are represented in decimal format, &#nnnn;, with the corresponding characters

LOWERCASE

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

URL_DECODE

Use this option to decode a URL-encoded value.

NONE

Specify NONE if you don't want to perform any text transformations.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ExcludedRule

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The rule to exclude from a rule group. This is applicable only when the `ActivatedRule` refers to a `RuleGroup`. The rule must belong to the `RuleGroup` that is specified by the `ActivatedRule`.

Contents

RuleId

The unique identifier for the rule to exclude from the rule group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

FieldToMatch

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies where in a web request to look for `TargetString`.

Contents

Data

When the value of `Type` is `HEADER`, enter the name of the header that you want AWS WAF to search, for example, `User-Agent` or `Referer`. The name of the header is not case sensitive.

When the value of `Type` is `SINGLE_QUERY_ARG`, enter the name of the parameter that you want AWS WAF to search, for example, `UserName` or `SalesRegion`. The parameter name is not case sensitive.

If the value of `Type` is any other value, omit `Data`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

Type

The part of the web request that you want AWS WAF to search for a specified string. Parts of a request that you can search include the following:

- `HEADER`: A specified request header, for example, the value of the `User-Agent` or `Referer` header. If you choose `HEADER` for the type, specify the name of the header in `Data`.
- `METHOD`: The HTTP method, which indicated the type of operation that the request is asking the origin to perform. Amazon CloudFront supports the following methods: `DELETE`, `GET`, `HEAD`, `OPTIONS`, `PATCH`, `POST`, and `PUT`.
- `QUERY_STRING`: A query string, which is the part of a URL that appears after a `?` character, if any.
- `URI`: The path component of the URI. This does not include the query string or fragment components of the URI. For information, see [Uniform Resource Identifier \(URI\): Generic Syntax](#).
- `BODY`: The part of a request that contains any additional data that you want to send to your web server as the HTTP request body, such as data from a form. The request body immediately follows the request headers. Note that only the first 8192 bytes of the request body are forwarded to AWS WAF for inspection. To allow or block requests based on the length of the body, you can create a size constraint set. For more information, see [CreateSizeConstraintSet \(p. 296\)](#).
- `SINGLE_QUERY_ARG`: The parameter in the query string that you will inspect, such as `UserName` or `SalesRegion`. The maximum length for `SINGLE_QUERY_ARG` is 30 characters.
- `ALL_QUERY_ARGS`: Similar to `SINGLE_QUERY_ARG`, but rather than inspecting a single parameter, AWS WAF will inspect all parameters within the query for the value or regex pattern that you specify in `TargetString`.

Type: String

Valid Values: `URI` | `QUERY_STRING` | `HEADER` | `METHOD` | `BODY` | `SINGLE_QUERY_ARG` | `ALL_QUERY_ARGS`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

GeoMatchConstraint

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The country from which web requests originate that you want AWS WAF to search for.

Contents

Type

The type of geographical area you want AWS WAF to search for. Currently `Country` is the only valid value.

Type: String

Valid Values: `Country`

Required: Yes

Value

The country that you want AWS WAF to search for.

Type: String

Valid Values:	AF		AX		AL		DZ		AS		AD		AO		AI		AQ		AG		AR		AM		AW				
AU		AT		AZ		BS		BH		BD		BB		BY		BE		BZ		BJ		BM		BT		BO		BQ	
BA		BW		BV		BR		IO		BN		BG		BF		BI		KH		CM		CA		CV		KY		CF	
TD		CL		CN		CX		CC		CO		KM		CG		CD		CK		CR		CI		HR		CU		CW	
CY		CZ		DK		DJ		DM		DO		EC		EG		SV		GQ		ER		EE		ET		FK		FO	
FJ		FI		FR		GF		PF		TF		GA		GM		GE		DE		GH		GI		GR		GL		GD	
GP		GU		GT		GG		GN		GW		GY		HT		HM		VA		HN		HK		HU		IS		IN	
ID		IR		IQ		IE		IM		IL		IT		JM		JP		JE		JO		KZ		KE		KI		KP	
KR		KW		KG		LA		LV		LB		LS		LR		LY		LI		LT		LU		MO		MK		MG	
MW		MY		MV		ML		MT		MH		MQ		MR		MU		YT		MX		FM		MD		MC		MN	
ME		MS		MA		MZ		MM		NA		NR		NP		NL		NC		NZ		NI		NE		NG		NU	
NF		MP		NO		OM		PK		PW		PS		PA		PG		PY		PE		PH		PN		PL		PT	
PR		QA		RE		RO		RU		RW		BL		SH		KN		LC		MF		PM		VC		WS		SM	
ST		SA		SN		RS		SC		SL		SG		SX		SK		SI		SB		SO		ZA		GS		SS	
ES		LK		SD		SR		SJ		SZ		SE		CH		SY		TW		TJ		TZ		TH		TL		TG	
TK		TO		TT		TN		TR		TM		TC		TV		UG		UA		AE		GB		US		UM		UY	
UZ		VU		VE		VN		VG		VI		WF		EH		YE		ZM		ZW									

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

GeoMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains one or more countries that AWS WAF will search for.

Contents

GeoMatchConstraints

An array of [GeoMatchConstraint \(p. 923\)](#) objects, which contain the country that you want AWS WAF to search for.

Type: Array of [GeoMatchConstraint \(p. 923\)](#) objects

Required: Yes

GeoMatchSetId

The `GeoMatchSetId` for an `GeoMatchSet`. You use `GeoMatchSetId` to get information about a `GeoMatchSet` (see [GeoMatchSet \(p. 925\)](#)), update a `GeoMatchSet` (see [UpdateGeoMatchSet \(p. 463\)](#)), insert a `GeoMatchSet` into a `Rule` or delete one from a `Rule` (see [UpdateRule \(p. 485\)](#)), and delete a `GeoMatchSet` from AWS WAF (see [DeleteGeoMatchSet \(p. 320\)](#)).

`GeoMatchSetId` is returned by [CreateGeoMatchSet \(p. 270\)](#) and by [ListGeoMatchSets \(p. 406\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

Name

A friendly name or description of the [GeoMatchSet \(p. 925\)](#). You can't change the name of an `GeoMatchSet` after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

GeoMatchSetSummary

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the name of the GeoMatchSet.

Contents

GeoMatchSetId

The GeoMatchSetId for an [GeoMatchSet \(p. 925\)](#). You can use GeoMatchSetId in a [GetGeoMatchSet \(p. 364\)](#) request to get detailed information about an [GeoMatchSet \(p. 925\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

Name

A friendly name or description of the [GeoMatchSet \(p. 925\)](#). You can't change the name of an GeoMatchSet after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

GeoMatchSetUpdate

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the type of update to perform to an [GeoMatchSet \(p. 925\)](#) with [UpdateGeoMatchSet \(p. 463\)](#).

Contents

Action

Specifies whether to insert or delete a country with [UpdateGeoMatchSet \(p. 463\)](#).

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

GeoMatchConstraint

The country from which web requests originate that you want AWS WAF to search for.

Type: [GeoMatchConstraint \(p. 923\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

HTTPHeader

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The response from a [GetSampledRequests \(p. 385\)](#) request includes an `HTTPHeader` complex type that appears as `Headers` in the response syntax. `HTTPHeader` contains the names and values of all of the headers that appear in one of the web requests that were returned by `GetSampledRequests`.

Contents

Name

The name of one of the headers in the sampled web request.

Type: String

Required: No

Value

The value of one of the headers in the sampled web request.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

HTTPRequest

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The response from a [GetSampledRequests \(p. 385\)](#) request includes an `HTTPRequest` complex type that appears as `Request` in the response syntax. `HTTPRequest` contains information about one of the web requests that were returned by `GetSampledRequests`.

Contents

ClientIP

The IP address that the request originated from. If the `WebACL` is associated with an Amazon CloudFront distribution, this is the value of one of the following fields in CloudFront access logs:

- `c-ip`, if the viewer did not use an HTTP proxy or a load balancer to send the request
- `x-forwarded-for`, if the viewer did use an HTTP proxy or a load balancer to send the request

Type: String

Required: No

Country

The two-letter country code for the country that the request originated from. For a current list of country codes, see the Wikipedia entry [ISO 3166-1 alpha-2](#).

Type: String

Required: No

Headers

A complex type that contains two values for each header in the sampled web request: the name of the header and the value of the header.

Type: Array of [HTTPHeader \(p. 929\)](#) objects

Required: No

HTTPVersion

The HTTP version specified in the sampled web request, for example, `HTTP/1.1`.

Type: String

Required: No

Method

The HTTP method specified in the sampled web request. Amazon CloudFront supports the following methods: `DELETE`, `GET`, `HEAD`, `OPTIONS`, `PATCH`, `POST`, and `PUT`.

Type: String

Required: No

URI

The path component of the URI. This does not include the query string or fragment components of the URI. For information, see [Uniform Resource Identifier \(URI\): Generic Syntax](#).

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

IPSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains one or more IP addresses or blocks of IP addresses specified in Classless Inter-Domain Routing (CIDR) notation. AWS WAF supports IPv4 address ranges: /8 and any range between /16 through /32. AWS WAF supports IPv6 address ranges: /24, /32, /48, /56, /64, and /128.

To specify an individual IP address, you specify the four-part IP address followed by a /32, for example, 192.0.2.0/32. To block a range of IP addresses, you can specify /8 or any range between /16 through /32 (for IPv4) or /24, /32, /48, /56, /64, or /128 (for IPv6). For more information about CIDR notation, see the Wikipedia entry [Classless Inter-Domain Routing](#).

Contents

IPSetDescriptors

The IP address type (`IPV4` or `IPV6`) and the IP address range (in CIDR notation) that web requests originate from. If the `WebACL` is associated with an Amazon CloudFront distribution and the viewer did not use an HTTP proxy or a load balancer to send the request, this is the value of the `c-ip` field in the CloudFront access logs.

Type: Array of [IPSetDescriptor \(p. 934\)](#) objects

Required: Yes

IPSetId

The `IPSetId` for an `IPSet`. You use `IPSetId` to get information about an `IPSet` (see [GetIPSet \(p. 366\)](#)), update an `IPSet` (see [UpdateIPSet \(p. 467\)](#)), insert an `IPSet` into a `Rule` or delete one from a `Rule` (see [UpdateRule \(p. 485\)](#)), and delete an `IPSet` from AWS WAF (see [DeleteIPSet \(p. 323\)](#)).

`IPSetId` is returned by [CreateIPSet \(p. 274\)](#) and by [ListIPSets \(p. 409\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

Name

A friendly name or description of the `IPSet` (p. 932). You can't change the name of an `IPSet` after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

IPSetDescriptor

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the IP address type (`IPV4` or `IPV6`) and the IP address range (in CIDR format) that web requests originate from.

Contents

Type

Specify `IPV4` or `IPV6`.

Type: String

Valid Values: `IPV4` | `IPV6`

Required: Yes

Value

Specify an IPv4 address by using CIDR notation. For example:

- To configure AWS WAF to allow, block, or count requests that originated from the IP address 192.0.2.44, specify `192.0.2.44/32`.
- To configure AWS WAF to allow, block, or count requests that originated from IP addresses from 192.0.2.0 to 192.0.2.255, specify `192.0.2.0/24`.

For more information about CIDR notation, see the Wikipedia entry [Classless Inter-Domain Routing](#).

Specify an IPv6 address by using CIDR notation. For example:

- To configure AWS WAF to allow, block, or count requests that originated from the IP address `1111:0000:0000:0000:0000:0000:0111`, specify `1111:0000:0000:0000:0000:0000:0111/128`.
- To configure AWS WAF to allow, block, or count requests that originated from IP addresses `1111:0000:0000:0000:0000:0000:0000` to `1111:0000:0000:ffff:ffff:ffff:ffff`, specify `1111:0000:0000:0000:0000:0000:0000/64`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `.*\$.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

IPSetSummary

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the name of the IPSet.

Contents

IPSetId

The `IPSetId` for an [IPSet \(p. 932\)](#). You can use `IPSetId` in a [GetIPSet \(p. 366\)](#) request to get detailed information about an [IPSet \(p. 932\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

Name

A friendly name or description of the [IPSet \(p. 932\)](#). You can't change the name of an `IPSet` after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

IPSetUpdate

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the type of update to perform to an [IPSet \(p. 932\)](#) with [UpdateIPSet \(p. 467\)](#).

Contents

Action

Specifies whether to insert or delete an IP address with [UpdateIPSet \(p. 467\)](#).

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

IPSetDescriptor

The IP address type (`IPV4` or `IPV6`) and the IP address range (in CIDR notation) that web requests originate from.

Type: [IPSetDescriptor \(p. 934\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

LoggingConfiguration

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The Amazon Kinesis Data Firehose, `RedactedFields` information, and the web ACL Amazon Resource Name (ARN).

Contents

LogDestinationConfigs

An array of Amazon Kinesis Data Firehose ARNs.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: Yes

RedactedFields

The parts of the request that you want redacted from the logs. For example, if you redact the cookie field, the cookie field in the firehose will be `xxxx`.

Type: Array of [FieldToMatch \(p. 921\)](#) objects

Required: No

ResourceArn

The Amazon Resource Name (ARN) of the web ACL that you want to associate with `LogDestinationConfigs`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Predicate

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the [ByteMatchSet \(p. 912\)](#), [IPSet \(p. 932\)](#), [SqlInjectionMatchSet \(p. 972\)](#), [XssMatchSet \(p. 989\)](#), [RegexMatchSet \(p. 944\)](#), [GeoMatchSet \(p. 925\)](#), and [SizeConstraintSet \(p. 968\)](#) objects that you want to add to a Rule and, for each object, indicates whether you want to negate the settings, for example, requests that do NOT originate from the IP address 192.0.2.44.

Contents

DataId

A unique identifier for a predicate in a Rule, such as ByteMatchSetId or IPSetId. The ID is returned by the corresponding Create or List command.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: Yes

Negated

Set Negated to False if you want AWS WAF to allow, block, or count requests based on the settings in the specified [ByteMatchSet \(p. 912\)](#), [IPSet \(p. 932\)](#), [SqlInjectionMatchSet \(p. 972\)](#), [XssMatchSet \(p. 989\)](#), [RegexMatchSet \(p. 944\)](#), [GeoMatchSet \(p. 925\)](#), or [SizeConstraintSet \(p. 968\)](#). For example, if an IPSet includes the IP address 192.0.2.44, AWS WAF will allow or block requests based on that IP address.

Set Negated to True if you want AWS WAF to allow or block a request based on the negation of the settings in the [ByteMatchSet \(p. 912\)](#), [IPSet \(p. 932\)](#), [SqlInjectionMatchSet \(p. 972\)](#), [XssMatchSet \(p. 989\)](#), [RegexMatchSet \(p. 944\)](#), [GeoMatchSet \(p. 925\)](#), or [SizeConstraintSet \(p. 968\)](#). For example, if an IPSet includes the IP address 192.0.2.44, AWS WAF will allow, block, or count requests based on all IP addresses *except* 192.0.2.44.

Type: Boolean

Required: Yes

Type

The type of predicate in a Rule, such as ByteMatch or IPSet.

Type: String

Valid Values: IPMatch | ByteMatch | SqlInjectionMatch | GeoMatch | SizeConstraint | XssMatch | RegexMatch

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RateBasedRule

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A RateBasedRule is identical to a regular [Rule \(p. 955\)](#), with one addition: a RateBasedRule counts the number of requests that arrive from a specified IP address every five minutes. For example, based on recent requests that you've seen from an attacker, you might create a RateBasedRule that includes the following conditions:

- The requests come from 192.0.2.44.
- They contain the value BadBot in the User-Agent header.

In the rule, you also define the rate limit as 1,000.

Requests that meet both of these conditions and exceed 1,000 requests every five minutes trigger the rule's action (block or count), which is defined in the web ACL.

Contents

MatchPredicates

The `Predicates` object contains one `Predicate` element for each [ByteMatchSet \(p. 912\)](#), [IPSet \(p. 932\)](#), or [SqlInjectionMatchSet \(p. 972\)](#) object that you want to include in a RateBasedRule.

Type: Array of [Predicate \(p. 940\)](#) objects

Required: No

MetricName

A friendly name or description for the metrics for a RateBasedRule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RateBasedRule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

Name

A friendly name or description for a RateBasedRule. You can't change the name of a RateBasedRule after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

RateKey

The field that AWS WAF uses to determine if requests are likely arriving from single source and thus subject to rate monitoring. The only valid value for RateKey is IP. IP indicates that requests arriving from the same IP address are subject to the RateLimit that is specified in the RateBasedRule.

Type: String

Valid Values: IP

Required: Yes

RateLimit

The maximum number of requests, which have an identical value in the field specified by the RateKey, allowed in a five-minute period. If the number of requests exceeds the RateLimit and the other predicates specified in the rule are also met, AWS WAF triggers the action that is specified for this rule.

Type: Long

Valid Range: Minimum value of 100. Maximum value of 2000000000.

Required: Yes

RuleId

A unique identifier for a RateBasedRule. You use RuleId to get more information about a RateBasedRule (see [GetRateBasedRule \(p. 372\)](#)), update a RateBasedRule (see [UpdateRateBasedRule \(p. 472\)](#)), insert a RateBasedRule into a WebACL or delete one from a WebACL (see [UpdateWebACL \(p. 502\)](#)), or delete a RateBasedRule from AWS WAF (see [DeleteRateBasedRule \(p. 330\)](#)).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In a [GetRegexMatchSet \(p. 377\)](#) request, RegexMatchSet is a complex type that contains the RegexMatchSetId and Name of a RegexMatchSet, and the values that you specified when you updated the RegexMatchSet.

The values are contained in a RegexMatchTuple object, which specify the parts of web requests that you want AWS WAF to inspect and the values that you want AWS WAF to search for. If a RegexMatchSet contains more than one RegexMatchTuple object, a request needs to match the settings in only one ByteMatchTuple to be considered a match.

Contents

Name

A friendly name or description of the [RegexMatchSet \(p. 944\)](#). You can't change Name after you create a RegexMatchSet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

RegexMatchSetId

The RegexMatchSetId for a RegexMatchSet. You use RegexMatchSetId to get information about a RegexMatchSet (see [GetRegexMatchSet \(p. 377\)](#)), update a RegexMatchSet (see [UpdateRegexMatchSet \(p. 477\)](#)), insert a RegexMatchSet into a Rule or delete one from a Rule (see [UpdateRule \(p. 485\)](#)), and delete a RegexMatchSet from AWS WAF (see [DeleteRegexMatchSet \(p. 333\)](#)).

RegexMatchSetId is returned by [CreateRegexMatchSet \(p. 282\)](#) and by [ListRegexMatchSets \(p. 418\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

RegexMatchTuples

Contains an array of [RegexMatchTuple \(p. 948\)](#) objects. Each RegexMatchTuple object contains:

- The part of a web request that you want AWS WAF to inspect, such as a query string or the value of the User-Agent header.
- The identifier of the pattern (a regular expression) that you want AWS WAF to look for. For more information, see [RegexPatternSet \(p. 951\)](#).

- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

Type: Array of [RegexMatchTuple \(p. 948\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexMatchSetSummary

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returned by [ListRegexMatchSets \(p. 418\)](#). Each `RegexMatchSetSummary` object includes the `Name` and `RegexMatchSetId` for one [RegexMatchSet \(p. 944\)](#).

Contents

Name

A friendly name or description of the [RegexMatchSet \(p. 944\)](#). You can't change `Name` after you create a `RegexMatchSet`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

RegexMatchSetId

The `RegexMatchSetId` for a `RegexMatchSet`. You use `RegexMatchSetId` to get information about a `RegexMatchSet`, update a `RegexMatchSet`, remove a `RegexMatchSet` from a `Rule`, and delete a `RegexMatchSet` from AWS WAF.

`RegexMatchSetId` is returned by [CreateRegexMatchSet \(p. 282\)](#) and by [ListRegexMatchSets \(p. 418\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexMatchSetUpdate

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In an [UpdateRegexMatchSet \(p. 477\)](#) request, RegexMatchSetUpdate specifies whether to insert or delete a [RegexMatchTuple \(p. 948\)](#) and includes the settings for the RegexMatchTuple.

Contents

Action

Specifies whether to insert or delete a [RegexMatchTuple \(p. 948\)](#).

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

RegexMatchTuple

Information about the part of a web request that you want AWS WAF to inspect and the identifier of the regular expression (regex) pattern that you want AWS WAF to search for. If you specify `DELETE` for the value of Action, the RegexMatchTuple values must exactly match the values in the RegexMatchTuple that you want to delete from the RegexMatchSet.

Type: [RegexMatchTuple \(p. 948\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexMatchTuple

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The regular expression pattern that you want AWS WAF to search for in web requests, the location in requests that you want AWS WAF to search, and other settings. Each `RegexMatchTuple` object contains:

- The part of a web request that you want AWS WAF to inspect, such as a query string or the value of the `User-Agent` header.
- The identifier of the pattern (a regular expression) that you want AWS WAF to look for. For more information, see [RegexPatternSet \(p. 951\)](#).
- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

Contents

FieldToMatch

Specifies where in a web request to look for the `RegexPatternSet`.

Type: [FieldToMatch \(p. 921\)](#) object

Required: Yes

RegexPatternSetId

The `RegexPatternSetId` for a `RegexPatternSet`. You use `RegexPatternSetId` to get information about a `RegexPatternSet` (see [GetRegexPatternSet \(p. 379\)](#)), update a `RegexPatternSet` (see [UpdateRegexPatternSet \(p. 481\)](#)), insert a `RegexPatternSet` into a `RegexMatchSet` or delete one from a `RegexMatchSet` (see [UpdateRegexMatchSet \(p. 477\)](#)), and delete an `RegexPatternSet` from AWS WAF (see [DeleteRegexPatternSet \(p. 336\)](#)).

`RegexPatternSetId` is returned by [CreateRegexPatternSet \(p. 285\)](#) and by [ListRegexPatternSets \(p. 421\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on `RegexPatternSet` before inspecting a request for a match.

You can only specify a single type of `TextTransformation`.

CMD_LINE

When you're concerned that attackers are injecting an operating system commandline command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \ " ' ^
- Delete spaces before the following characters: / (
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

COMPRESS_WHITE_SPACE

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

COMPRESS_WHITE_SPACE also replaces multiple spaces with one space.

HTML_ENTITY_DECODE

Use this option to replace HTML-encoded characters with unencoded characters.

HTML_ENTITY_DECODE performs the following operations:

- Replaces (ampersand)quot; with "
- Replaces (ampersand)nbsnbsp; with a non-breaking space, decimal 160
- Replaces (ampersand)lt; with a "less than" symbol
- Replaces (ampersand)gt; with >
- Replaces characters that are represented in hexadecimal format, (ampersand)#xhhhh;, with the corresponding characters
- Replaces characters that are represented in decimal format, (ampersand)#nnnn;, with the corresponding characters

LOWERCASE

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

URL_DECODE

Use this option to decode a URL-encoded value.

NONE

Specify NONE if you don't want to perform any text transformations.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexPatternSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The `RegexPatternSet` specifies the regular expression (regex) pattern that you want AWS WAF to search for, such as `B[a@]dB[o0]t`. You can then configure AWS WAF to reject those requests.

Contents

Name

A friendly name or description of the [RegexPatternSet \(p. 951\)](#). You can't change `Name` after you create a `RegexPatternSet`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

RegexPatternSetId

The identifier for the `RegexPatternSet`. You use `RegexPatternSetId` to get information about a `RegexPatternSet`, update a `RegexPatternSet`, remove a `RegexPatternSet` from a `RegexMatchSet`, and delete a `RegexPatternSet` from AWS WAF.

`RegexMatchSetId` is returned by [CreateRegexPatternSet \(p. 285\)](#) and by [ListRegexPatternSets \(p. 421\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

RegexPatternStrings

Specifies the regular expression (regex) patterns that you want AWS WAF to search for, such as `B[a@]dB[o0]t`.

Type: Array of strings

Array Members: Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexPatternSetSummary

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returned by [ListRegexPatternSets \(p. 421\)](#). Each RegexPatternSetSummary object includes the Name and RegexPatternSetId for one RegexPatternSet ([p. 951](#)).

Contents

Name

A friendly name or description of the [RegexPatternSet \(p. 951\)](#). You can't change Name after you create a RegexPatternSet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: Yes

RegexPatternSetId

The RegexPatternSetId for a RegexPatternSet. You use RegexPatternSetId to get information about a RegexPatternSet, update a RegexPatternSet, remove a RegexPatternSet from a RegexMatchSet, and delete a RegexPatternSet from AWS WAF.

RegexPatternSetId is returned by [CreateRegexPatternSet \(p. 285\)](#) and by [ListRegexPatternSets \(p. 421\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexPatternSetUpdate

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In an [UpdateRegexPatternSet \(p. 481\)](#) request, RegexPatternSetUpdate specifies whether to insert or delete a RegexPatternString and includes the settings for the RegexPatternString.

Contents

Action

Specifies whether to insert or delete a RegexPatternString.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

RegexPatternString

Specifies the regular expression (regex) pattern that you want AWS WAF to search for, such as B[a@]dB[oO]t.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: .*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Rule

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A combination of [ByteMatchSet \(p. 912\)](#), [IPSet \(p. 932\)](#), and/or [SqlInjectionMatchSet \(p. 972\)](#) objects that identify the web requests that you want to allow, block, or count. For example, you might create a Rule that includes the following predicates:

- An IPSet that causes AWS WAF to search for web requests that originate from the IP address 192.0.2.44
- A ByteMatchSet that causes AWS WAF to search for web requests for which the value of the User-Agent header is BadBot.

To match the settings in this Rule, a request must originate from 192.0.2.44 AND include a User-Agent header for which the value is BadBot.

Contents

MetricName

A friendly name or description for the metrics for this Rule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change MetricName after you create the Rule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: No

Name

The friendly name or description for the Rule. You can't change the name of a Rule after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: No

Predicates

The Predicates object contains one Predicate element for each [ByteMatchSet \(p. 912\)](#), [IPSet \(p. 932\)](#), or [SqlInjectionMatchSet \(p. 972\)](#) object that you want to include in a Rule.

Type: Array of [Predicate \(p. 940\)](#) objects

Required: Yes

RuleId

A unique identifier for a Rule. You use RuleId to get more information about a Rule (see [GetRule \(p. 381\)](#)), update a Rule (see [UpdateRule \(p. 485\)](#)), insert a Rule into a WebACL or delete a one from a WebACL (see [UpdateWebACL \(p. 502\)](#)), or delete a Rule from AWS WAF (see [DeleteRule \(p. 339\)](#)).

RuleId is returned by [CreateRule \(p. 288\)](#) and by [ListRules \(p. 427\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RuleGroup

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A collection of predefined rules that you can add to a web ACL.

Rule groups are subject to the following limits:

- Three rule groups per account. You can request an increase to this limit by contacting customer support.
- One rule group per web ACL.
- Ten rules per rule group.

Contents

MetricName

A friendly name or description for the metrics for this RuleGroup. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RuleGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: No

Name

The friendly name or description for the RuleGroup. You can't change the name of a RuleGroup after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: No

RuleGroupId

A unique identifier for a RuleGroup. You use RuleGroupId to get more information about a RuleGroup (see [GetRuleGroup \(p. 383\)](#)), update a RuleGroup (see [UpdateRuleGroup \(p. 489\)](#)), insert a RuleGroup into a WebACL or delete a one from a WebACL (see [UpdateWebACL \(p. 502\)](#)), or delete a RuleGroup from AWS WAF (see [DeleteRuleGroup \(p. 342\)](#)).

RuleGroupId is returned by [CreateRuleGroup \(p. 292\)](#) and by [ListRuleGroups \(p. 424\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\$.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RuleGroupSummary

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the friendly name or description of the RuleGroup.

Contents

Name

A friendly name or description of the [RuleGroup \(p. 957\)](#). You can't change the name of a RuleGroup after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

RuleGroupId

A unique identifier for a RuleGroup. You use RuleGroupId to get more information about a RuleGroup (see [GetRuleGroup \(p. 383\)](#)), update a RuleGroup (see [UpdateRuleGroup \(p. 489\)](#)), insert a RuleGroup into a WebACL or delete one from a WebACL (see [UpdateWebACL \(p. 502\)](#)), or delete a RuleGroup from AWS WAF (see [DeleteRuleGroup \(p. 342\)](#)).

RuleGroupId is returned by [CreateRuleGroup \(p. 292\)](#) and by [ListRuleGroups \(p. 424\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RuleGroupUpdate

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies an `ActivatedRule` and indicates whether you want to add it to a `RuleGroup` or delete it from a `RuleGroup`.

Contents

Action

Specify `INSERT` to add an `ActivatedRule` to a `RuleGroup`. Use `DELETE` to remove an `ActivatedRule` from a `RuleGroup`.

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

ActivatedRule

The `ActivatedRule` object specifies a `Rule` that you want to insert or delete, the priority of the `Rule` in the `WebACL`, and the action that you want AWS WAF to take when a web request matches the `Rule` (`ALLOW`, `BLOCK`, or `COUNT`).

Type: [ActivatedRule \(p. 909\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RuleSummary

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the friendly name or description of the Rule.

Contents

Name

A friendly name or description of the Rule ([p. 955](#)). You can't change the name of a Rule after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

RuleId

A unique identifier for a Rule. You use RuleId to get more information about a Rule (see [GetRule \(p. 381\)](#)), update a Rule (see [UpdateRule \(p. 485\)](#)), insert a Rule into a WebACL or delete one from a WebACL (see [UpdateWebACL \(p. 502\)](#)), or delete a Rule from AWS WAF (see [DeleteRule \(p. 339\)](#)).

RuleId is returned by [CreateRule \(p. 288\)](#) and by [ListRules \(p. 427\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RuleUpdate

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies a **Predicate** (such as an **IPSet**) and indicates whether you want to add it to a **Rule** or delete it from a **Rule**.

Contents

Action

Specify **INSERT** to add a **Predicate** to a **Rule**. Use **DELETE** to remove a **Predicate** from a **Rule**.

Type: String

Valid Values: **INSERT** | **DELETE**

Required: Yes

Predicate

The ID of the **Predicate** (such as an **IPSet**) that you want to add to a **Rule**.

Type: [Predicate \(p. 940\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SampledHTTPRequest

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The response from a [GetSampledRequests \(p. 385\)](#) request includes a `SampledHTTPRequests` complex type that appears as `SampledRequests` in the response syntax. `SampledHTTPRequests` contains one `SampledHTTPRequest` object for each web request that is returned by `GetSampledRequests`.

Contents

Action

The action for the Rule that the request matched: ALLOW, BLOCK, or COUNT.

Type: String

Required: No

Request

A complex type that contains detailed information about the request.

Type: [HTTPRequest \(p. 930\)](#) object

Required: Yes

RuleWithinRuleGroup

This value is returned if the `GetSampledRequests` request specifies the ID of a `RuleGroup` rather than the ID of an individual rule. `RuleWithinRuleGroup` is the rule within the specified `RuleGroup` that matched the request listed in the response.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

Timestamp

The time at which AWS WAF received the request from your AWS resource, in Unix time format (in seconds).

Type: Timestamp

Required: No

Weight

A value that indicates how one result in the response relates proportionally to other results in the response. A result that has a weight of 2 represents roughly twice as many Amazon CloudFront web requests as a result that has a weight of 1.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SizeConstraint

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF , use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies a constraint on the size of a part of the web request. AWS WAF uses the `Size`, `ComparisonOperator`, and `FieldToMatch` to build an expression in the form of "Size ComparisonOperator size in bytes of FieldToMatch". If that expression is true, the `SizeConstraint` is considered to match.

Contents

ComparisonOperator

The type of comparison you want AWS WAF to perform. AWS WAF uses this in combination with the provided `Size` and `FieldToMatch` to build an expression in the form of "Size ComparisonOperator size in bytes of FieldToMatch". If that expression is true, the `SizeConstraint` is considered to match.

EQ: Used to test if the `Size` is equal to the size of the `FieldToMatch`

NE: Used to test if the `Size` is not equal to the size of the `FieldToMatch`

LE: Used to test if the `Size` is less than or equal to the size of the `FieldToMatch`

LT: Used to test if the `Size` is strictly less than the size of the `FieldToMatch`

GE: Used to test if the `Size` is greater than or equal to the size of the `FieldToMatch`

GT: Used to test if the `Size` is strictly greater than the size of the `FieldToMatch`

Type: String

Valid Values: EQ | NE | LE | LT | GE | GT

Required: Yes

FieldToMatch

Specifies where in a web request to look for the size constraint.

Type: [FieldToMatch \(p. 921\)](#) object

Required: Yes

Size

The size in bytes that you want AWS WAF to compare against the size of the specified `FieldToMatch`. AWS WAF uses this in combination with `ComparisonOperator` and `FieldToMatch` to build an expression in the form of "Size ComparisonOperator size in bytes of FieldToMatch". If that expression is true, the `SizeConstraint` is considered to match.

Valid values for size are 0 - 21474836480 bytes (0 - 20 GB).

If you specify `URI` for the value of `Type`, the / in the URI path that you specify counts as one character. For example, the URI /logo.jpg is nine characters long.

Type: Long

Valid Range: Minimum value of 0. Maximum value of 21474836480.

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on `FieldToMatch` before inspecting it for a match.

You can only specify a single type of `TextTransformation`.

Note that if you choose `BODY` for the value of `Type`, you must choose `NONE` for `TextTransformation` because Amazon CloudFront forwards only the first 8192 bytes for inspection.

NONE

Specify `NONE` if you don't want to perform any text transformations.

CMD_LINE

When you're concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \ " ^
- Delete spaces before the following characters: / (
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

COMPRESS_WHITE_SPACE

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

`COMPRESS_WHITE_SPACE` also replaces multiple spaces with one space.

HTML_ENTITY_DECODE

Use this option to replace HTML-encoded characters with unencoded characters.

`HTML_ENTITY_DECODE` performs the following operations:

- Replaces " with "
- Replaces with a non-breaking space, decimal 160
- Replaces < with a "less than" symbol
- Replaces > with >
- Replaces characters that are represented in hexadecimal format, &#xhhh;, with the corresponding characters

- Replaces characters that are represented in decimal format, `(ampersand)#nnnn;`, with the corresponding characters

LOWERCASE

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

URL_DECODE

Use this option to decode a URL-encoded value.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE |
CMD_LINE | URL_DECODE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SizeConstraintSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A complex type that contains `SizeConstraint` objects, which specify the parts of web requests that you want AWS WAF to inspect the size of. If a `SizeConstraintSet` contains more than one `SizeConstraint` object, a request only needs to match one constraint to be considered a match.

Contents

Name

The name, if any, of the `SizeConstraintSet`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

SizeConstraints

Specifies the parts of web requests that you want to inspect the size of.

Type: Array of [SizeConstraint \(p. 965\)](#) objects

Required: Yes

SizeConstraintSetId

A unique identifier for a `SizeConstraintSet`. You use `SizeConstraintSetId` to get information about a `SizeConstraintSet` (see [GetSizeConstraintSet \(p. 389\)](#)), update a `SizeConstraintSet` (see [UpdateSizeConstraintSet \(p. 493\)](#)), insert a `SizeConstraintSet` into a `Rule` or delete one from a `Rule` (see [UpdateRule \(p. 485\)](#)), and delete a `SizeConstraintSet` from AWS WAF (see [DeleteSizeConstraintSet \(p. 345\)](#)).

`SizeConstraintSetId` is returned by [CreateSizeConstraintSet \(p. 296\)](#) and by [ListSizeConstraintSets \(p. 430\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SizeConstraintSetSummary

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The `Id` and `Name` of a `SizeConstraintSet`.

Contents

Name

The name of the `SizeConstraintSet`, if any.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

SizeConstraintSetId

A unique identifier for a `SizeConstraintSet`. You use `SizeConstraintSetId` to get information about a `SizeConstraintSet` (see [GetSizeConstraintSet \(p. 389\)](#)), update a `SizeConstraintSet` (see [UpdateSizeConstraintSet \(p. 493\)](#)), insert a `SizeConstraintSet` into a `Rule` or delete one from a `Rule` (see [UpdateRule \(p. 485\)](#)), and delete a `SizeConstraintSet` from AWS WAF (see [DeleteSizeConstraintSet \(p. 345\)](#)).

`SizeConstraintSetId` is returned by [CreateSizeConstraintSet \(p. 296\)](#) and by [ListSizeConstraintSets \(p. 430\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SizeConstraintSetUpdate

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want to inspect the size of and indicates whether you want to add the specification to a [SizeConstraintSet \(p. 968\)](#) or delete it from a [SizeConstraintSet](#).

Contents

Action

Specify `INSERT` to add a [SizeConstraintSetUpdate \(p. 971\)](#) to a [SizeConstraintSet \(p. 968\)](#). Use `DELETE` to remove a [SizeConstraintSetUpdate](#) from a [SizeConstraintSet](#).

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

SizeConstraint

Specifies a constraint on the size of a part of the web request. AWS WAF uses the `Size`, `ComparisonOperator`, and `FieldToMatch` to build an expression in the form of "`Size ComparisonOperator size in bytes of FieldToMatch`". If that expression is true, the `SizeConstraint` is considered to match.

Type: [SizeConstraint \(p. 965\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SqlInjectionMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A complex type that contains [SqlInjectionMatchTuple](#) objects, which specify the parts of web requests that you want AWS WAF to inspect for snippets of malicious SQL code and, if you want AWS WAF to inspect a header, the name of the header. If a [SqlInjectionMatchSet](#) contains more than one [SqlInjectionMatchTuple](#) object, a request needs to include snippets of SQL code in only one of the specified parts of the request to be considered a match.

Contents

Name

The name, if any, of the [SqlInjectionMatchSet](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

SqlInjectionMatchSetId

A unique identifier for a [SqlInjectionMatchSet](#). You use [SqlInjectionMatchSetId](#) to get information about a [SqlInjectionMatchSet](#) (see [GetSqlInjectionMatchSet \(p. 392\)](#)), update a [SqlInjectionMatchSet](#) (see [UpdateSqlInjectionMatchSet \(p. 498\)](#)), insert a [SqlInjectionMatchSet](#) into a [Rule](#) or delete one from a [Rule](#) (see [UpdateRule \(p. 485\)](#)), and delete a [SqlInjectionMatchSet](#) from AWS WAF (see [DeleteSqlInjectionMatchSet \(p. 348\)](#)).

[SqlInjectionMatchSetId](#) is returned by [CreateSqlInjectionMatchSet \(p. 300\)](#) and by [ListSqlInjectionMatchSets \(p. 433\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

SqlInjectionMatchTuples

Specifies the parts of web requests that you want to inspect for snippets of malicious SQL code.

Type: Array of [SqlInjectionMatchTuple \(p. 976\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SqlInjectionMatchSetSummary

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The `Id` and `Name` of a `SqlInjectionMatchSet`.

Contents

Name

The name of the `SqlInjectionMatchSet`, if any, specified by `Id`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

SqlInjectionMatchSetId

A unique identifier for a `SqlInjectionMatchSet`. You use `SqlInjectionMatchSetId` to get information about a `SqlInjectionMatchSet` (see [GetSqlInjectionMatchSet \(p. 392\)](#)), update a `SqlInjectionMatchSet` (see [UpdateSqlInjectionMatchSet \(p. 498\)](#)), insert a `SqlInjectionMatchSet` into a `Rule` or delete one from a `Rule` (see [UpdateRule \(p. 485\)](#)), and delete a `SqlInjectionMatchSet` from AWS WAF (see [DeleteSqlInjectionMatchSet \(p. 348\)](#)).

`SqlInjectionMatchSetId` is returned by [CreateSqlInjectionMatchSet \(p. 300\)](#) and by [ListSqlInjectionMatchSets \(p. 433\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SqlInjectionMatchSetUpdate

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want to inspect for snippets of malicious SQL code and indicates whether you want to add the specification to a [SqlInjectionMatchSet \(p. 972\)](#) or delete it from a [SqlInjectionMatchSet](#).

Contents

Action

Specify `INSERT` to add a [SqlInjectionMatchSetUpdate \(p. 975\)](#) to a [SqlInjectionMatchSet \(p. 972\)](#). Use `DELETE` to remove a [SqlInjectionMatchSetUpdate](#) from a [SqlInjectionMatchSet](#).

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

SqlInjectionMatchTuple

Specifies the part of a web request that you want AWS WAF to inspect for snippets of malicious SQL code and, if you want AWS WAF to inspect a header, the name of the header.

Type: [SqlInjectionMatchTuple \(p. 976\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SqlInjectionMatchTuple

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want AWS WAF to inspect for snippets of malicious SQL code and, if you want AWS WAF to inspect a header, the name of the header.

Contents

FieldToMatch

Specifies where in a web request to look for snippets of malicious SQL code.

Type: [FieldToMatch \(p. 921\)](#) object

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on `FieldToMatch` before inspecting it for a match.

You can only specify a single type of `TextTransformation`.

CMD_LINE

When you're concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \ " ' ^
- Delete spaces before the following characters: / (
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

COMPRESS_WHITE_SPACE

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

`COMPRESS_WHITE_SPACE` also replaces multiple spaces with one space.

HTML_ENTITY_DECODE

Use this option to replace HTML-encoded characters with unencoded characters.

`HTML_ENTITY_DECODE` performs the following operations:

- Replaces `(ampersand)quot;` with "
- Replaces `(ampersand)nbsps;` with a non-breaking space, decimal 160
- Replaces `(ampersand)lt;` with a "less than" symbol
- Replaces `(ampersand)gt;` with >
- Replaces characters that are represented in hexadecimal format, `(ampersand)#xhhhh;`, with the corresponding characters
- Replaces characters that are represented in decimal format, `(ampersand)#nnnn;`, with the corresponding characters

LOWERCASE

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

URL_DECODE

Use this option to decode a URL-encoded value.

NONE

Specify `NONE` if you don't want to perform any text transformations.

Type: String

Valid Values: `NONE` | `COMPRESS_WHITE_SPACE` | `HTML_ENTITY_DECODE` | `LOWERCASE` | `CMD_LINE` | `URL_DECODE`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SubscribedRuleGroupSummary

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A summary of the rule groups you are subscribed to.

Contents

MetricName

A friendly name or description for the metrics for this RuleGroup. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RuleGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

Name

A friendly name or description of the RuleGroup. You can't change the name of a RuleGroup after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

RuleGroupId

A unique identifier for a RuleGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Tag

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

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. For example, 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.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Contents

Key

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

Value

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: .*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

TagInfoForResource

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Information for 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. For example, 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.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Contents

ResourceARN

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\s.*

Required: No

TagList

Type: Array of [Tag \(p. 980\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

TimeWindow

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In a [GetSampledRequests \(p. 385\)](#) request, the `StartTime` and `EndTime` objects specify the time range for which you want AWS WAF to return a sample of web requests.

You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, `z`. For example, "2016-09-27T14:50Z".

In a [GetSampledRequests \(p. 385\)](#) response, the `StartTime` and `EndTime` objects specify the time range for which AWS WAF actually returned a sample of web requests. AWS WAF gets the specified number of requests from among the first 5,000 requests that your AWS resource receives during the specified time period. If your resource receives more than 5,000 requests during that period, AWS WAF stops sampling after the 5,000th request. In that case, `EndTime` is the time that AWS WAF received the 5,000th request.

Contents

EndTime

The end of the time range from which you want `GetSampledRequests` to return a sample of the requests that your AWS resource received. You must specify the date and time in Coordinated Universal Time (UTC) format. UTC format includes the special designator, `z`. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: Timestamp

Required: Yes

StartTime

The beginning of the time range from which you want `GetSampledRequests` to return a sample of the requests that your AWS resource received. You must specify the date and time in Coordinated Universal Time (UTC) format. UTC format includes the special designator, `z`. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: Timestamp

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

WafAction

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

For the action that is associated with a rule in a WebACL, specifies the action that you want AWS WAF to perform when a web request matches all of the conditions in a rule. For the default action in a WebACL, specifies the action that you want AWS WAF to take when a web request doesn't match all of the conditions in any of the rules in a WebACL.

Contents

Type

Specifies how you want AWS WAF to respond to requests that match the settings in a Rule. Valid settings include the following:

- **ALLOW**: AWS WAF allows requests
- **BLOCK**: AWS WAF blocks requests
- **COUNT**: AWS WAF increments a counter of the requests that match all of the conditions in the rule. AWS WAF then continues to inspect the web request based on the remaining rules in the web ACL. You can't specify COUNT for the default action for a WebACL.

Type: String

Valid Values: BLOCK | ALLOW | COUNT

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

WafOverrideAction

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The action to take if any rule within the `RuleGroup` matches a request.

Contents

Type

`COUNT` overrides the action specified by the individual rule within a `RuleGroup`. If set to `NONE`, the rule's action will take place.

Type: String

Valid Values: `NONE` | `COUNT`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

WebACL

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the Rules that identify the requests that you want to allow, block, or count. In a WebACL, you also specify a default action (ALLOW or BLOCK), and the action for each Rule that you add to a WebACL, for example, block requests from specified IP addresses or block requests from specified referrers. You also associate the WebACL with an Amazon CloudFront distribution to identify the requests that you want AWS WAF to filter. If you add more than one Rule to a WebACL, a request needs to match only one of the specifications to be allowed, blocked, or counted. For more information, see [UpdateWebACL \(p. 502\)](#).

Contents

DefaultAction

The action to perform if none of the Rules contained in the WebACL match. The action is specified by the [WafAction \(p. 983\)](#) object.

Type: [WafAction \(p. 983\)](#) object

Required: Yes

MetricName

A friendly name or description for the metrics for this WebACL. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change MetricName after you create the WebACL.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: No

Name

A friendly name or description of the WebACL. You can't change the name of a WebACL after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: No

Rules

An array that contains the action for each Rule in a WebACL, the priority of the Rule, and the ID of the Rule.

Type: Array of [ActivatedRule \(p. 909\)](#) objects

Required: Yes

WebACLArn

The Amazon Resource Name (ARN) of the web ACL.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\\$.*

Required: No

WebACLIId

A unique identifier for a WebACL. You use WebACLIId to get information about a WebACL (see [GetWebACL \(p. 395\)](#)), update a WebACL (see [UpdateWebACL \(p. 502\)](#)), and delete a WebACL from AWS WAF (see [DeleteWebACL \(p. 351\)](#)).

WebACLIId is returned by [CreateWebACL \(p. 304\)](#) and by [ListWebACLS \(p. 442\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

WebACLSummary

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the name or description of the [WebACL \(p. 985\)](#).

Contents

Name

A friendly name or description of the [WebACL \(p. 985\)](#). You can't change the name of a WebACL after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

WebACLIId

A unique identifier for a WebACL. You use WebACLIId to get information about a WebACL (see [GetWebACL \(p. 395\)](#)), update a WebACL (see [UpdateWebACL \(p. 502\)](#)), and delete a WebACL from AWS WAF (see [DeleteWebACL \(p. 351\)](#)).

WebACLIId is returned by [CreateWebACL \(p. 304\)](#) and by [ListWebACLS \(p. 442\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

WebACLUpdate

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies whether to insert a Rule into or delete a Rule from a WebACL.

Contents

Action

Specifies whether to insert a Rule into or delete a Rule from a WebACL.

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

ActivatedRule

The ActivatedRule object in an UpdateWebACL request specifies a Rule that you want to insert or delete, the priority of the Rule in the WebACL, and the action that you want AWS WAF to take when a web request matches the Rule (ALLOW, BLOCK, or COUNT).

Type: [ActivatedRule](#) (p. 909) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

XssMatchSet

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A complex type that contains `XssMatchTuple` objects, which specify the parts of web requests that you want AWS WAF to inspect for cross-site scripting attacks and, if you want AWS WAF to inspect a header, the name of the header. If a `XssMatchSet` contains more than one `XssMatchTuple` object, a request needs to include cross-site scripting attacks in only one of the specified parts of the request to be considered a match.

Contents

Name

The name, if any, of the `XssMatchSet`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

XssMatchSetId

A unique identifier for an `XssMatchSet`. You use `XssMatchSetId` to get information about an `XssMatchSet` (see [GetXssMatchSet \(p. 398\)](#)), update an `XssMatchSet` (see [UpdateXssMatchSet \(p. 507\)](#)), insert an `XssMatchSet` into a `Rule` or delete one from a `Rule` (see [UpdateRule \(p. 485\)](#)), and delete an `XssMatchSet` from AWS WAF (see [DeleteXssMatchSet \(p. 354\)](#)).

`XssMatchSetId` is returned by [CreateXssMatchSet \(p. 313\)](#) and by [ListXssMatchSets \(p. 445\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

XssMatchTuples

Specifies the parts of web requests that you want to inspect for cross-site scripting attacks.

Type: Array of [XssMatchTuple \(p. 993\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

XssMatchSetSummary

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The `Id` and `Name` of an `XssMatchSet`.

Contents

Name

The name of the `XssMatchSet`, if any, specified by `Id`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

XssMatchSetId

A unique identifier for an `XssMatchSet`. You use `XssMatchSetId` to get information about a `XssMatchSet` (see [GetXssMatchSet \(p. 398\)](#)), update an `XssMatchSet` (see [UpdateXssMatchSet \(p. 507\)](#)), insert an `XssMatchSet` into a `Rule` or delete one from a `Rule` (see [UpdateRule \(p. 485\)](#)), and delete an `XssMatchSet` from AWS WAF (see [DeleteXssMatchSet \(p. 354\)](#)).

`XssMatchSetId` is returned by [CreateXssMatchSet \(p. 313\)](#) and by [ListXssMatchSets \(p. 445\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

XssMatchSetUpdate

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want to inspect for cross-site scripting attacks and indicates whether you want to add the specification to an [XssMatchSet \(p. 989\)](#) or delete it from an [XssMatchSet](#).

Contents

Action

Specify `INSERT` to add an [XssMatchSetUpdate \(p. 992\)](#) to an [XssMatchSet \(p. 989\)](#). Use `DELETE` to remove an [XssMatchSetUpdate](#) from an [XssMatchSet](#).

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

XssMatchTuple

Specifies the part of a web request that you want AWS WAF to inspect for cross-site scripting attacks and, if you want AWS WAF to inspect a header, the name of the header.

Type: [XssMatchTuple \(p. 993\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

XssMatchTuple

Service: AWS WAF Classic

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want AWS WAF to inspect for cross-site scripting attacks and, if you want AWS WAF to inspect a header, the name of the header.

Contents

FieldToMatch

Specifies where in a web request to look for cross-site scripting attacks.

Type: [FieldToMatch \(p. 921\)](#) object

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on `FieldToMatch` before inspecting it for a match.

You can only specify a single type of `TextTransformation`.

CMD_LINE

When you're concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \ " ' ^
- Delete spaces before the following characters: / (
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

COMPRESS_WHITE_SPACE

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

`COMPRESS_WHITE_SPACE` also replaces multiple spaces with one space.

HTML_ENTITY_DECODE

Use this option to replace HTML-encoded characters with unencoded characters.

`HTML_ENTITY_DECODE` performs the following operations:

- Replaces `(ampersand)quot;` with "
- Replaces `(ampersand)nbsnbsp;` with a non-breaking space, decimal 160
- Replaces `(ampersand)lt;` with a "less than" symbol
- Replaces `(ampersand)gt;` with >
- Replaces characters that are represented in hexadecimal format, `(ampersand)#xhhhh;`, with the corresponding characters
- Replaces characters that are represented in decimal format, `(ampersand)#nnnn;`, with the corresponding characters

LOWERCASE

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

URL_DECODE

Use this option to decode a URL-encoded value.

NONE

Specify `NONE` if you don't want to perform any text transformations.

Type: String

Valid Values: `NONE` | `COMPRESS_WHITE_SPACE` | `HTML_ENTITY_DECODE` | `LOWERCASE` | `CMD_LINE` | `URL_DECODE`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

AWS WAF Classic Regional

The following data types are supported by AWS WAF Classic Regional:

- [ActivatedRule \(p. 997\)](#)
- [ByteMatchSet \(p. 1000\)](#)
- [ByteMatchSetSummary \(p. 1002\)](#)
- [ByteMatchSetUpdate \(p. 1003\)](#)
- [ByteMatchTuple \(p. 1004\)](#)
- [ExcludedRule \(p. 1008\)](#)
- [FieldToMatch \(p. 1009\)](#)
- [GeoMatchConstraint \(p. 1011\)](#)
- [GeoMatchSet \(p. 1013\)](#)

- [GeoMatchSetSummary \(p. 1015\)](#)
- [GeoMatchSetUpdate \(p. 1016\)](#)
- [HTTPHeader \(p. 1017\)](#)
- [HTTPRequest \(p. 1018\)](#)
- [IPSet \(p. 1020\)](#)
- [IPSetDescriptor \(p. 1022\)](#)
- [IPSetSummary \(p. 1024\)](#)
- [IPSetUpdate \(p. 1025\)](#)
- [LoggingConfiguration \(p. 1026\)](#)
- [Predicate \(p. 1028\)](#)
- [RateBasedRule \(p. 1030\)](#)
- [RegexMatchSet \(p. 1032\)](#)
- [RegexMatchSetSummary \(p. 1034\)](#)
- [RegexMatchSetUpdate \(p. 1035\)](#)
- [RegexMatchTuple \(p. 1036\)](#)
- [RegexPatternSet \(p. 1039\)](#)
- [RegexPatternSetSummary \(p. 1041\)](#)
- [RegexPatternSetUpdate \(p. 1042\)](#)
- [Rule \(p. 1043\)](#)
- [RuleGroup \(p. 1045\)](#)
- [RuleGroupSummary \(p. 1047\)](#)
- [RuleGroupUpdate \(p. 1048\)](#)
- [RuleSummary \(p. 1049\)](#)
- [RuleUpdate \(p. 1050\)](#)
- [SampledHTTPRequest \(p. 1051\)](#)
- [SizeConstraint \(p. 1053\)](#)
- [SizeConstraintSet \(p. 1056\)](#)
- [SizeConstraintSetSummary \(p. 1058\)](#)
- [SizeConstraintSetUpdate \(p. 1059\)](#)
- [SqlInjectionMatchSet \(p. 1060\)](#)
- [SqlInjectionMatchSetSummary \(p. 1062\)](#)
- [SqlInjectionMatchSetUpdate \(p. 1063\)](#)
- [SqlInjectionMatchTuple \(p. 1064\)](#)
- [SubscribedRuleGroupSummary \(p. 1066\)](#)
- [Tag \(p. 1068\)](#)
- [TagInfoForResource \(p. 1069\)](#)
- [TimeWindow \(p. 1070\)](#)
- [WafAction \(p. 1071\)](#)
- [WafOverrideAction \(p. 1072\)](#)
- [WebACL \(p. 1073\)](#)
- [WebACLSummary \(p. 1075\)](#)
- [WebACLUpdate \(p. 1076\)](#)
- [XssMatchSet \(p. 1077\)](#)
- [XssMatchSetSummary \(p. 1079\)](#)
- [XssMatchSetUpdate \(p. 1080\)](#)
- [XssMatchTuple \(p. 1081\)](#)

ActivatedRule

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The `ActivatedRule` object in an [UpdateWebACL \(p. 760\)](#) request specifies a `Rule` that you want to insert or delete, the priority of the `Rule` in the `WebACL`, and the action that you want AWS WAF to take when a web request matches the `Rule` (`ALLOW`, `BLOCK`, or `COUNT`).

To specify whether to insert or delete a `Rule`, use the `Action` parameter in the [WebACLUpdate \(p. 1076\)](#) data type.

Contents

Action

Specifies the action that Amazon CloudFront or AWS WAF takes when a web request matches the conditions in the `Rule`. Valid values for `Action` include the following:

- `ALLOW`: CloudFront responds with the requested object.
- `BLOCK`: CloudFront responds with an HTTP 403 (Forbidden) status code.
- `COUNT`: AWS WAF increments a counter of requests that match the conditions in the rule and then continues to inspect the web request based on the remaining rules in the web ACL.

`ActivatedRule|OverrideAction` applies only when updating or adding a `RuleGroup` to a `WebACL`. In this case, you do not use `ActivatedRule|Action`. For all other update requests, `ActivatedRule|Action` is used instead of `ActivatedRule|OverrideAction`.

Type: [WafAction \(p. 1071\)](#) object

Required: No

ExcludedRules

An array of rules to exclude from a rule group. This is applicable only when the `ActivatedRule` refers to a `RuleGroup`.

Sometimes it is necessary to troubleshoot rule groups that are blocking traffic unexpectedly (false positives). One troubleshooting technique is to identify the specific rule within the rule group that is blocking the legitimate traffic and then disable (exclude) that particular rule. You can exclude rules from both your own rule groups and AWS Marketplace rule groups that have been associated with a web ACL.

Specifying `ExcludedRules` does not remove those rules from the rule group. Rather, it changes the action for the rules to `COUNT`. Therefore, requests that match an `ExcludedRule` are counted but not blocked. The `RuleGroup` owner will receive `COUNT` metrics for each `ExcludedRule`.

If you want to exclude rules from a rule group that is already associated with a web ACL, perform the following steps:

1. Use the AWS WAF logs to identify the IDs of the rules that you want to exclude. For more information about the logs, see [Logging Web ACL Traffic Information](#).
2. Submit an [UpdateWebACL \(p. 760\)](#) request that has two actions:
 - The first action deletes the existing rule group from the web ACL. That is, in the [UpdateWebACL \(p. 760\)](#) request, the first `Updates:Action` should be `DELETE` and

Updates:ActivatedRule:RuleId should be the rule group that contains the rules that you want to exclude.

- The second action inserts the same rule group back in, but specifying the rules to exclude. That is, the second **Updates:Action** should be `INSERT`, **Updates:ActivatedRule:RuleId** should be the rule group that you just removed, and **ExcludedRules** should contain the rules that you want to exclude.

Type: Array of [ExcludedRule \(p. 1008\)](#) objects

Required: No

OverrideAction

Use the **OverrideAction** to test your RuleGroup.

Any rule in a RuleGroup can potentially block a request. If you set the **OverrideAction** to `None`, the RuleGroup will block a request if any individual rule in the RuleGroup matches the request and is configured to block that request. However if you first want to test the RuleGroup, set the **OverrideAction** to `Count`. The RuleGroup will then override any block action specified by individual rules contained within the group. Instead of blocking matching requests, those requests will be counted. You can view a record of counted requests using [GetSampledRequests \(p. 637\)](#).

ActivatedRule|OverrideAction applies only when updating or adding a RuleGroup to a WebACL. In this case you do not use **ActivatedRule|Action**. For all other update requests, **ActivatedRule|Action** is used instead of **ActivatedRule|OverrideAction**.

Type: [WafOverrideAction \(p. 1072\)](#) object

Required: No

Priority

Specifies the order in which the Rules in a WebACL are evaluated. Rules with a lower value for **Priority** are evaluated before Rules with a higher value. The value must be a unique integer. If you add multiple Rules to a WebACL, the values don't need to be consecutive.

Type: Integer

Required: Yes

RuleId

The **RuleId** for a Rule. You use **RuleId** to get more information about a Rule (see [GetRule \(p. 633\)](#)), update a Rule (see [UpdateRule \(p. 743\)](#)), insert a Rule into a WebACL or delete a one from a WebACL (see [UpdateWebACL \(p. 760\)](#)), or delete a Rule from AWS WAF (see [DeleteRule \(p. 589\)](#)).

RuleId is returned by [CreateRule \(p. 538\)](#) and by [ListRules \(p. 685\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

Type

The rule type, either `REGULAR`, as defined by [Rule \(p. 1043\)](#), `RATE_BASED`, as defined by [RateBasedRule \(p. 1030\)](#), or `GROUP`, as defined by [RuleGroup \(p. 1045\)](#). The default is `REGULAR`. Although this field is optional, be aware that if you try to add a `RATE_BASED` rule to a web ACL

without setting the type, the [UpdateWebACL \(p. 760\)](#) request will fail because the request tries to add a REGULAR rule with the specified ID, which does not exist.

Type: String

Valid Values: `REGULAR` | `RATE_BASED` | `GROUP`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ByteMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In a [GetByteMatchSet \(p. 609\)](#) request, ByteMatchSet is a complex type that contains the ByteMatchSetId and Name of a ByteMatchSet, and the values that you specified when you updated the ByteMatchSet.

A complex type that contains ByteMatchTuple objects, which specify the parts of web requests that you want AWS WAF to inspect and the values that you want AWS WAF to search for. If a ByteMatchSet contains more than one ByteMatchTuple object, a request needs to match the settings in only one ByteMatchTuple to be considered a match.

Contents

ByteMatchSetId

The ByteMatchSetId for a ByteMatchSet. You use ByteMatchSetId to get information about a ByteMatchSet (see [GetByteMatchSet \(p. 609\)](#)), update a ByteMatchSet (see [UpdateByteMatchSet \(p. 717\)](#)), insert a ByteMatchSet into a Rule or delete one from a Rule (see [UpdateRule \(p. 743\)](#)), and delete a ByteMatchSet from AWS WAF (see [DeleteByteMatchSet \(p. 567\)](#)).

ByteMatchSetId is returned by [CreateByteMatchSet \(p. 516\)](#) and by [ListByteMatchSets \(p. 658\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: Yes

ByteMatchTuples

Specifies the bytes (typically a string that corresponds with ASCII characters) that you want AWS WAF to search for in web requests, the location in requests that you want AWS WAF to search, and other settings.

Type: Array of [ByteMatchTuple \(p. 1004\)](#) objects

Required: Yes

Name

A friendly name or description of the [ByteMatchSet \(p. 1000\)](#). You can't change Name after you create a ByteMatchSet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ByteMatchSetSummary

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returned by [ListByteMatchSets \(p. 658\)](#). Each `ByteMatchSetSummary` object includes the `Name` and `ByteMatchSetId` for one [ByteMatchSet \(p. 1000\)](#).

Contents

ByteMatchSetId

The `ByteMatchSetId` for a `ByteMatchSet`. You use `ByteMatchSetId` to get information about a `ByteMatchSet`, update a `ByteMatchSet`, remove a `ByteMatchSet` from a `Rule`, and delete a `ByteMatchSet` from AWS WAF.

`ByteMatchSetId` is returned by [CreateByteMatchSet \(p. 516\)](#) and by [ListByteMatchSets \(p. 658\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

Name

A friendly name or description of the [ByteMatchSet \(p. 1000\)](#). You can't change `Name` after you create a `ByteMatchSet`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ByteMatchSetUpdate

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In an [UpdateByteMatchSet \(p. 717\)](#) request, `ByteMatchSetUpdate` specifies whether to insert or delete a [ByteMatchTuple \(p. 1004\)](#) and includes the settings for the `ByteMatchTuple`.

Contents

Action

Specifies whether to insert or delete a [ByteMatchTuple \(p. 1004\)](#).

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

ByteMatchTuple

Information about the part of a web request that you want AWS WAF to inspect and the value that you want AWS WAF to search for. If you specify `DELETE` for the value of `Action`, the `ByteMatchTuple` values must exactly match the values in the `ByteMatchTuple` that you want to delete from the `ByteMatchSet`.

Type: [ByteMatchTuple \(p. 1004\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ByteMatchTuple

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The bytes (typically a string that corresponds with ASCII characters) that you want AWS WAF to search for in web requests, the location in requests that you want AWS WAF to search, and other settings.

Contents

FieldToMatch

The part of a web request that you want AWS WAF to search, such as a specified header or a query string. For more information, see [FieldToMatch \(p. 1009\)](#).

Type: [FieldToMatch \(p. 1009\)](#) object

Required: Yes

PositionalConstraint

Within the portion of a web request that you want to search (for example, in the query string, if any), specify where you want AWS WAF to search. Valid values include the following:

CONTAINS

The specified part of the web request must include the value of `TargetString`, but the location doesn't matter.

CONTAINS_WORD

The specified part of the web request must include the value of `TargetString`, and `TargetString` must contain only alphanumeric characters or underscore (A-Z, a-z, 0-9, or `_`). In addition, `TargetString` must be a word, which means one of the following:

- `TargetString` exactly matches the value of the specified part of the web request, such as the value of a header.
- `TargetString` is at the beginning of the specified part of the web request and is followed by a character other than an alphanumeric character or underscore (`_`), for example, `BadBot;`.
- `TargetString` is at the end of the specified part of the web request and is preceded by a character other than an alphanumeric character or underscore (`_`), for example, `;BadBot`.
- `TargetString` is in the middle of the specified part of the web request and is preceded and followed by characters other than alphanumeric characters or underscore (`_`), for example, `-BadBot;`.

EXACTLY

The value of the specified part of the web request must exactly match the value of `TargetString`.

STARTS_WITH

The value of `TargetString` must appear at the beginning of the specified part of the web request.

ENDS_WITH

The value of `TargetString` must appear at the end of the specified part of the web request.

Type: String

Valid Values: EXACTLY | STARTS_WITH | ENDS_WITH | CONTAINS | CONTAINS_WORD

Required: Yes

TargetString

The value that you want AWS WAF to search for. AWS WAF searches for the specified string in the part of web requests that you specified in `FieldToMatch`. The maximum length of the value is 50 bytes.

Valid values depend on the values that you specified for `FieldToMatch`:

- `HEADER`: The value that you want AWS WAF to search for in the request header that you specified in [FieldToMatch \(p. 1009\)](#), for example, the value of the `User-Agent` or `Referer` header.
- `METHOD`: The HTTP method, which indicates the type of operation specified in the request. Amazon CloudFront supports the following methods: `DELETE`, `GET`, `HEAD`, `OPTIONS`, `PATCH`, `POST`, and `PUT`.
- `QUERY_STRING`: The value that you want AWS WAF to search for in the query string, which is the part of a URL that appears after a `?` character.
- `URI`: The path component of the URI. This does not include the query string or fragment components of the URI. For information, see [Uniform Resource Identifier \(URI\): Generic Syntax](#).
- `BODY`: The part of a request that contains any additional data that you want to send to your web server as the HTTP request body, such as data from a form. The request body immediately follows the request headers. Note that only the first 8192 bytes of the request body are forwarded to AWS WAF for inspection. To allow or block requests based on the length of the body, you can create a size constraint set. For more information, see [CreateSizeConstraintSet \(p. 546\)](#).
- `SINGLE_QUERY_ARG`: The parameter in the query string that you will inspect, such as `UserName` or `SalesRegion`. The maximum length for `SINGLE_QUERY_ARG` is 30 characters.
- `ALL_QUERY_ARGS`: Similar to `SINGLE_QUERY_ARG`, but instead of inspecting a single parameter, AWS WAF inspects all parameters within the query string for the value or regex pattern that you specify in `TargetString`.

If `TargetString` includes alphabetic characters A-Z and a-z, note that the value is case sensitive.

If you're using the AWS WAF API

Specify a base64-encoded version of the value. The maximum length of the value before you base64-encode it is 50 bytes.

For example, suppose the value of `Type` is `HEADER` and the value of `Data` is `User-Agent`. If you want to search the `User-Agent` header for the value `BadBot`, you base64-encode `BadBot` using MIME base64-encoding and include the resulting value, `QmFlkQm90`, in the value of `TargetString`.

If you're using the AWS CLI or one of the AWS SDKs

The value that you want AWS WAF to search for. The SDK automatically base64 encodes the value.

Type: Base64-encoded binary data object

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on `FieldToMatch` before inspecting it for a match.

You can only specify a single type of TextTransformation.

CMD_LINE

When you're concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \ " ' ^
- Delete spaces before the following characters: / (
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

COMPRESS_WHITE_SPACE

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

COMPRESS_WHITE_SPACE also replaces multiple spaces with one space.

HTML_ENTITY_DECODE

Use this option to replace HTML-encoded characters with unencoded characters.

HTML_ENTITY_DECODE performs the following operations:

- Replaces " with "
- Replaces with a non-breaking space, decimal 160
- Replaces < with a "less than" symbol
- Replaces > with >
- Replaces characters that are represented in hexadecimal format, &#xhhhh;, with the corresponding characters
- Replaces characters that are represented in decimal format, &#nnnn;, with the corresponding characters

LOWERCASE

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

URL_DECODE

Use this option to decode a URL-encoded value.

NONE

Specify NONE if you don't want to perform any text transformations.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

ExcludedRule

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The rule to exclude from a rule group. This is applicable only when the `ActivatedRule` refers to a `RuleGroup`. The rule must belong to the `RuleGroup` that is specified by the `ActivatedRule`.

Contents

RuleId

The unique identifier for the rule to exclude from the rule group.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

FieldToMatch

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies where in a web request to look for `TargetString`.

Contents

Data

When the value of `Type` is `HEADER`, enter the name of the header that you want AWS WAF to search, for example, `User-Agent` or `Referer`. The name of the header is not case sensitive.

When the value of `Type` is `SINGLE_QUERY_ARG`, enter the name of the parameter that you want AWS WAF to search, for example, `UserName` or `SalesRegion`. The parameter name is not case sensitive.

If the value of `Type` is any other value, omit `Data`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

Type

The part of the web request that you want AWS WAF to search for a specified string. Parts of a request that you can search include the following:

- `HEADER`: A specified request header, for example, the value of the `User-Agent` or `Referer` header. If you choose `HEADER` for the type, specify the name of the header in `Data`.
- `METHOD`: The HTTP method, which indicated the type of operation that the request is asking the origin to perform. Amazon CloudFront supports the following methods: `DELETE`, `GET`, `HEAD`, `OPTIONS`, `PATCH`, `POST`, and `PUT`.
- `QUERY_STRING`: A query string, which is the part of a URL that appears after a `?` character, if any.
- `URI`: The path component of the URI. This does not include the query string or fragment components of the URI. For information, see [Uniform Resource Identifier \(URI\): Generic Syntax](#).
- `BODY`: The part of a request that contains any additional data that you want to send to your web server as the HTTP request body, such as data from a form. The request body immediately follows the request headers. Note that only the first 8192 bytes of the request body are forwarded to AWS WAF for inspection. To allow or block requests based on the length of the body, you can create a size constraint set. For more information, see [CreateSizeConstraintSet \(p. 546\)](#).
- `SINGLE_QUERY_ARG`: The parameter in the query string that you will inspect, such as `UserName` or `SalesRegion`. The maximum length for `SINGLE_QUERY_ARG` is 30 characters.
- `ALL_QUERY_ARGS`: Similar to `SINGLE_QUERY_ARG`, but rather than inspecting a single parameter, AWS WAF will inspect all parameters within the query for the value or regex pattern that you specify in `TargetString`.

Type: String

Valid Values: `URI` | `QUERY_STRING` | `HEADER` | `METHOD` | `BODY` | `SINGLE_QUERY_ARG` | `ALL_QUERY_ARGS`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

GeoMatchConstraint

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The country from which web requests originate that you want AWS WAF to search for.

Contents

Type

The type of geographical area you want AWS WAF to search for. Currently `Country` is the only valid value.

Type: String

Valid Values: `Country`

Required: Yes

Value

The country that you want AWS WAF to search for.

Type: String

AU	AT	AZ	BS	BH	BD	BB	BY	BE	BZ	BJ	BM	BT	BO	BQ	
BA	BW	BV	BR	IO	BN	BG	BF	BI	KH	CM	CA	CV	KY	CF	
TD	CL	CN	CX	CC	CO	KM	CG	CD	CK	CR	CI	HR	CU	CW	
CY	CZ	DK	DJ	DM	DO	EC	EG	SV	GQ	ER	EE	ET	FK	FO	
FJ	FI	FR	GF	PF	TF	GA	GM	GE	DE	GH	GI	GR	GL	GD	
GP	GU	GT	GG	GN	GW	GY	HT	HM	VA	HN	HK	HU	IS	IN	
ID	IR	IQ	IE	IM	IL	IT	JM	JP	JE	JO	KZ	KE	KI	KP	
KR	KW	KG	LA	LV	LB	LS	LR	LY	LI	LT	LU	MO	MK	MG	
MW	MY	MV	ML	MT	MH	MQ	MR	MU	YT	MX	FM	MD	MC	MN	
ME	MS	MA	MZ	MM	NA	NR	NP	NL	NC	NZ	NI	NE	NG	NU	
NF	MP	NO	OM	PK	PW	PS	PA	PG	PY	PE	PH	PN	PL	PT	
PR	QA	RE	RO	RU	RW	BL	SH	KN	LC	MF	PM	VC	WS	SM	
ST	SA	SN	RS	SC	SL	SG	SX	SK	SI	SB	SO	ZA	GS	SS	
ES	LK	SD	SR	SJ	SZ	SE	CH	SY	TW	TJ	TZ	TH	TL	TG	
TK	TO	TT	TN	TR	TM	TC	TV	UG	UA	AE	GB	US	UM	UY	
UZ	VU	VE	VN	VG	VI	WF	EH	YE	ZM	ZW					

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

GeoMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains one or more countries that AWS WAF will search for.

Contents

GeoMatchConstraints

An array of [GeoMatchConstraint \(p. 1011\)](#) objects, which contain the country that you want AWS WAF to search for.

Type: Array of [GeoMatchConstraint \(p. 1011\)](#) objects

Required: Yes

GeoMatchSetId

The `GeoMatchSetId` for an `GeoMatchSet`. You use `GeoMatchSetId` to get information about a `GeoMatchSet` (see [GeoMatchSet \(p. 1013\)](#)), update a `GeoMatchSet` (see [UpdateGeoMatchSet \(p. 721\)](#)), insert a `GeoMatchSet` into a `Rule` or delete one from a `Rule` (see [UpdateRule \(p. 743\)](#)), and delete a `GeoMatchSet` from AWS WAF (see [DeleteGeoMatchSet \(p. 570\)](#)).

`GeoMatchSetId` is returned by [CreateGeoMatchSet \(p. 520\)](#) and by [ListGeoMatchSets \(p. 661\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

Name

A friendly name or description of the [GeoMatchSet \(p. 1013\)](#). You can't change the name of an `GeoMatchSet` after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

GeoMatchSetSummary

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the name of the GeoMatchSet.

Contents

GeoMatchSetId

The GeoMatchSetId for an [GeoMatchSet \(p. 1013\)](#). You can use GeoMatchSetId in a [GetGeoMatchSet \(p. 616\)](#) request to get detailed information about an [GeoMatchSet \(p. 1013\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

Name

A friendly name or description of the [GeoMatchSet \(p. 1013\)](#). You can't change the name of an GeoMatchSet after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

GeoMatchSetUpdate

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the type of update to perform to an [GeoMatchSet \(p. 1013\)](#) with [UpdateGeoMatchSet \(p. 721\)](#).

Contents

Action

Specifies whether to insert or delete a country with [UpdateGeoMatchSet \(p. 721\)](#).

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

GeoMatchConstraint

The country from which web requests originate that you want AWS WAF to search for.

Type: [GeoMatchConstraint \(p. 1011\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

HTTPHeader

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The response from a [GetSampledRequests \(p. 637\)](#) request includes an `HTTPHeader` complex type that appears as `Headers` in the response syntax. `HTTPHeader` contains the names and values of all of the headers that appear in one of the web requests that were returned by `GetSampledRequests`.

Contents

Name

The name of one of the headers in the sampled web request.

Type: String

Required: No

Value

The value of one of the headers in the sampled web request.

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

HTTPRequest

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The response from a [GetSampledRequests \(p. 637\)](#) request includes an `HTTPRequest` complex type that appears as `Request` in the response syntax. `HTTPRequest` contains information about one of the web requests that were returned by `GetSampledRequests`.

Contents

ClientIP

The IP address that the request originated from. If the `WebACL` is associated with an Amazon CloudFront distribution, this is the value of one of the following fields in CloudFront access logs:

- `c-ip`, if the viewer did not use an HTTP proxy or a load balancer to send the request
- `x-forwarded-for`, if the viewer did use an HTTP proxy or a load balancer to send the request

Type: String

Required: No

Country

The two-letter country code for the country that the request originated from. For a current list of country codes, see the Wikipedia entry [ISO 3166-1 alpha-2](#).

Type: String

Required: No

Headers

A complex type that contains two values for each header in the sampled web request: the name of the header and the value of the header.

Type: Array of [HTTPHeader \(p. 1017\)](#) objects

Required: No

HTTPVersion

The HTTP version specified in the sampled web request, for example, `HTTP/1.1`.

Type: String

Required: No

Method

The HTTP method specified in the sampled web request. Amazon CloudFront supports the following methods: `DELETE`, `GET`, `HEAD`, `OPTIONS`, `PATCH`, `POST`, and `PUT`.

Type: String

Required: No

URI

The path component of the URI. This does not include the query string or fragment components of the URI. For information, see [Uniform Resource Identifier \(URI\): Generic Syntax](#).

Type: String

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

IPSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains one or more IP addresses or blocks of IP addresses specified in Classless Inter-Domain Routing (CIDR) notation. AWS WAF supports IPv4 address ranges: /8 and any range between /16 through /32. AWS WAF supports IPv6 address ranges: /24, /32, /48, /56, /64, and /128.

To specify an individual IP address, you specify the four-part IP address followed by a /32, for example, 192.0.2.0/32. To block a range of IP addresses, you can specify /8 or any range between /16 through /32 (for IPv4) or /24, /32, /48, /56, /64, or /128 (for IPv6). For more information about CIDR notation, see the Wikipedia entry [Classless Inter-Domain Routing](#).

Contents

IPSetDescriptors

The IP address type ([IPv4](#) or [IPv6](#)) and the IP address range (in CIDR notation) that web requests originate from. If the [WebACL](#) is associated with an Amazon CloudFront distribution and the viewer did not use an HTTP proxy or a load balancer to send the request, this is the value of the c-ip field in the CloudFront access logs.

Type: Array of [IPSetDescriptor](#) (p. 1022) objects

Required: Yes

IPSetId

The [IPSetId](#) for an [IPSet](#). You use [IPSetId](#) to get information about an [IPSet](#) (see [GetIPSet](#) (p. 618)), update an [IPSet](#) (see [UpdateIPSet](#) (p. 725)), insert an [IPSet](#) into a [Rule](#) or delete one from a [Rule](#) (see [UpdateRule](#) (p. 743)), and delete an [IPSet](#) from AWS WAF (see [DeleteIPSet](#) (p. 573)).

[IPSetId](#) is returned by [CreateIPSet](#) (p. 524) and by [ListIPSets](#) (p. 664).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

Name

A friendly name or description of the [IPSet](#) (p. 1020). You can't change the name of an [IPSet](#) after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

IPSetDescriptor

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the IP address type (`IPV4` or `IPV6`) and the IP address range (in CIDR format) that web requests originate from.

Contents

Type

Specify `IPV4` or `IPV6`.

Type: String

Valid Values: `IPV4` | `IPV6`

Required: Yes

Value

Specify an IPv4 address by using CIDR notation. For example:

- To configure AWS WAF to allow, block, or count requests that originated from the IP address 192.0.2.44, specify `192.0.2.44/32`.
- To configure AWS WAF to allow, block, or count requests that originated from IP addresses from 192.0.2.0 to 192.0.2.255, specify `192.0.2.0/24`.

For more information about CIDR notation, see the Wikipedia entry [Classless Inter-Domain Routing](#).

Specify an IPv6 address by using CIDR notation. For example:

- To configure AWS WAF to allow, block, or count requests that originated from the IP address `1111:0000:0000:0000:0000:0000:0111`, specify `1111:0000:0000:0000:0000:0000:0111/128`.
- To configure AWS WAF to allow, block, or count requests that originated from IP addresses `1111:0000:0000:0000:0000:0000:0000` to `1111:0000:0000:ffff:ffff:ffff:ffff`, specify `1111:0000:0000:0000:0000:0000:0000/64`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 50.

Pattern: `.*\$.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

IPSetSummary

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the name of the IPSet.

Contents

IPSetId

The `IPSetId` for an [IPSet \(p. 1020\)](#). You can use `IPSetId` in a [GetIPSet \(p. 618\)](#) request to get detailed information about an [IPSet \(p. 1020\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

Name

A friendly name or description of the [IPSet \(p. 1020\)](#). You can't change the name of an `IPSet` after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

IPSetUpdate

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the type of update to perform to an [IPSet \(p. 1020\)](#) with [UpdateIPSet \(p. 725\)](#).

Contents

Action

Specifies whether to insert or delete an IP address with [UpdateIPSet \(p. 725\)](#).

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

IPSetDescriptor

The IP address type (`IPV4` or `IPV6`) and the IP address range (in CIDR notation) that web requests originate from.

Type: [IPSetDescriptor \(p. 1022\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

LoggingConfiguration

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The Amazon Kinesis Data Firehose, `RedactedFields` information, and the web ACL Amazon Resource Name (ARN).

Contents

LogDestinationConfigs

An array of Amazon Kinesis Data Firehose ARNs.

Type: Array of strings

Array Members: Fixed number of 1 item.

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: Yes

RedactedFields

The parts of the request that you want redacted from the logs. For example, if you redact the cookie field, the cookie field in the firehose will be `xxxx`.

Type: Array of [FieldToMatch \(p. 1009\)](#) objects

Required: No

ResourceArn

The Amazon Resource Name (ARN) of the web ACL that you want to associate with `LogDestinationConfigs`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Predicate

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the [ByteMatchSet \(p. 1000\)](#), [IPSet \(p. 1020\)](#), [SqlInjectionMatchSet \(p. 1060\)](#), [XssMatchSet \(p. 1077\)](#), [RegexMatchSet \(p. 1032\)](#), [GeoMatchSet \(p. 1013\)](#), and [SizeConstraintSet \(p. 1056\)](#) objects that you want to add to a Rule and, for each object, indicates whether you want to negate the settings, for example, requests that do NOT originate from the IP address 192.0.2.44.

Contents

DataId

A unique identifier for a predicate in a Rule, such as ByteMatchSetId or IPSetId. The ID is returned by the corresponding Create or List command.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

Negated

Set Negated to False if you want AWS WAF to allow, block, or count requests based on the settings in the specified [ByteMatchSet \(p. 1000\)](#), [IPSet \(p. 1020\)](#), [SqlInjectionMatchSet \(p. 1060\)](#), [XssMatchSet \(p. 1077\)](#), [RegexMatchSet \(p. 1032\)](#), [GeoMatchSet \(p. 1013\)](#), or [SizeConstraintSet \(p. 1056\)](#). For example, if an IPSet includes the IP address 192.0.2.44, AWS WAF will allow or block requests based on that IP address.

Set Negated to True if you want AWS WAF to allow or block a request based on the negation of the settings in the [ByteMatchSet \(p. 1000\)](#), [IPSet \(p. 1020\)](#), [SqlInjectionMatchSet \(p. 1060\)](#), [XssMatchSet \(p. 1077\)](#), [RegexMatchSet \(p. 1032\)](#), [GeoMatchSet \(p. 1013\)](#), or [SizeConstraintSet \(p. 1056\)](#). For example, if an IPSet includes the IP address 192.0.2.44, AWS WAF will allow, block, or count requests based on all IP addresses *except* 192.0.2.44.

Type: Boolean

Required: Yes

Type

The type of predicate in a Rule, such as ByteMatch or IPSet.

Type: String

Valid Values: IPMatch | ByteMatch | SqlInjectionMatch | GeoMatch | SizeConstraint | XssMatch | RegexMatch

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RateBasedRule

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A RateBasedRule is identical to a regular [Rule \(p. 1043\)](#), with one addition: a RateBasedRule counts the number of requests that arrive from a specified IP address every five minutes. For example, based on recent requests that you've seen from an attacker, you might create a RateBasedRule that includes the following conditions:

- The requests come from 192.0.2.44.
- They contain the value `BadBot` in the `User-Agent` header.

In the rule, you also define the rate limit as 1,000.

Requests that meet both of these conditions and exceed 1,000 requests every five minutes trigger the rule's action (block or count), which is defined in the web ACL.

Contents

MatchPredicates

The `Predicates` object contains one `Predicate` element for each [ByteMatchSet \(p. 1000\)](#), [IPSet \(p. 1020\)](#), or [SqlInjectionMatchSet \(p. 1060\)](#) object that you want to include in a RateBasedRule.

Type: Array of [Predicate \(p. 1028\)](#) objects

Required: No

MetricName

A friendly name or description for the metrics for a RateBasedRule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RateBasedRule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

Name

A friendly name or description for a RateBasedRule. You can't change the name of a RateBasedRule after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

RateKey

The field that AWS WAF uses to determine if requests are likely arriving from single source and thus subject to rate monitoring. The only valid value for RateKey is IP. IP indicates that requests arriving from the same IP address are subject to the RateLimit that is specified in the RateBasedRule.

Type: String

Valid Values: IP

Required: Yes

RateLimit

The maximum number of requests, which have an identical value in the field specified by the RateKey, allowed in a five-minute period. If the number of requests exceeds the RateLimit and the other predicates specified in the rule are also met, AWS WAF triggers the action that is specified for this rule.

Type: Long

Valid Range: Minimum value of 100. Maximum value of 2000000000.

Required: Yes

RuleId

A unique identifier for a RateBasedRule. You use RuleId to get more information about a RateBasedRule (see [GetRateBasedRule \(p. 624\)](#)), update a RateBasedRule (see [UpdateRateBasedRule \(p. 730\)](#)), insert a RateBasedRule into a WebACL or delete one from a WebACL (see [UpdateWebACL \(p. 760\)](#)), or delete a RateBasedRule from AWS WAF (see [DeleteRateBasedRule \(p. 580\)](#)).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In a [GetRegexMatchSet \(p. 629\)](#) request, RegexMatchSet is a complex type that contains the RegexMatchSetId and Name of a RegexMatchSet, and the values that you specified when you updated the RegexMatchSet.

The values are contained in a RegexMatchTuple object, which specify the parts of web requests that you want AWS WAF to inspect and the values that you want AWS WAF to search for. If a RegexMatchSet contains more than one RegexMatchTuple object, a request needs to match the settings in only one ByteMatchTuple to be considered a match.

Contents

Name

A friendly name or description of the [RegexMatchSet \(p. 1032\)](#). You can't change Name after you create a RegexMatchSet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

RegexMatchSetId

The RegexMatchSetId for a RegexMatchSet. You use RegexMatchSetId to get information about a RegexMatchSet (see [GetRegexMatchSet \(p. 629\)](#)), update a RegexMatchSet (see [UpdateRegexMatchSet \(p. 735\)](#)), insert a RegexMatchSet into a Rule or delete one from a Rule (see [UpdateRule \(p. 743\)](#)), and delete a RegexMatchSet from AWS WAF (see [DeleteRegexMatchSet \(p. 583\)](#)).

RegexMatchSetId is returned by [CreateRegexMatchSet \(p. 532\)](#) and by [ListRegexMatchSets \(p. 673\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

RegexMatchTuples

Contains an array of [RegexMatchTuple \(p. 1036\)](#) objects. Each RegexMatchTuple object contains:

- The part of a web request that you want AWS WAF to inspect, such as a query string or the value of the User-Agent header.
- The identifier of the pattern (a regular expression) that you want AWS WAF to look for. For more information, see [RegexPatternSet \(p. 1039\)](#).

- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

Type: Array of [RegexMatchTuple \(p. 1036\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexMatchSetSummary

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returned by [ListRegexMatchSets \(p. 673\)](#). Each RegexMatchSetSummary object includes the Name and RegexMatchSetId for one [RegexMatchSet \(p. 1032\)](#).

Contents

Name

A friendly name or description of the [RegexMatchSet \(p. 1032\)](#). You can't change Name after you create a RegexMatchSet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

RegexMatchSetId

The RegexMatchSetId for a RegexMatchSet. You use RegexMatchSetId to get information about a RegexMatchSet, update a RegexMatchSet, remove a RegexMatchSet from a Rule, and delete a RegexMatchSet from AWS WAF.

RegexMatchSetId is returned by [CreateRegexMatchSet \(p. 532\)](#) and by [ListRegexMatchSets \(p. 673\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexMatchSetUpdate

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In an [UpdateRegexMatchSet \(p. 735\)](#) request, `RegexMatchSetUpdate` specifies whether to insert or delete a [RegexMatchTuple \(p. 1036\)](#) and includes the settings for the `RegexMatchTuple`.

Contents

Action

Specifies whether to insert or delete a [RegexMatchTuple \(p. 1036\)](#).

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

RegexMatchTuple

Information about the part of a web request that you want AWS WAF to inspect and the identifier of the regular expression (regex) pattern that you want AWS WAF to search for. If you specify `DELETE` for the value of `Action`, the `RegexMatchTuple` values must exactly match the values in the `RegexMatchTuple` that you want to delete from the `RegexMatchSet`.

Type: [RegexMatchTuple \(p. 1036\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexMatchTuple

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The regular expression pattern that you want AWS WAF to search for in web requests, the location in requests that you want AWS WAF to search, and other settings. Each `RegexMatchTuple` object contains:

- The part of a web request that you want AWS WAF to inspect, such as a query string or the value of the `User-Agent` header.
- The identifier of the pattern (a regular expression) that you want AWS WAF to look for. For more information, see [RegexPatternSet \(p. 1039\)](#).
- Whether to perform any conversions on the request, such as converting it to lowercase, before inspecting it for the specified string.

Contents

FieldToMatch

Specifies where in a web request to look for the `RegexPatternSet`.

Type: [FieldToMatch \(p. 1009\)](#) object

Required: Yes

RegexPatternSetId

The `RegexPatternSetId` for a `RegexPatternSet`. You use `RegexPatternSetId` to get information about a `RegexPatternSet` (see [GetRegexPatternSet \(p. 631\)](#)), update a `RegexPatternSet` (see [UpdateRegexPatternSet \(p. 739\)](#)), insert a `RegexPatternSet` into a `RegexMatchSet` or delete one from a `RegexMatchSet` (see [UpdateRegexMatchSet \(p. 735\)](#)), and delete an `RegexPatternSet` from AWS WAF (see [DeleteRegexPatternSet \(p. 586\)](#)).

`RegexPatternSetId` is returned by [CreateRegexPatternSet \(p. 535\)](#) and by [ListRegexPatternSets \(p. 676\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\$.*`

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on `RegexPatternSet` before inspecting a request for a match.

You can only specify a single type of `TextTransformation`.

CMD_LINE

When you're concerned that attackers are injecting an operating system commandline command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \ " ' ^
- Delete spaces before the following characters: / (
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

COMPRESS_WHITE_SPACE

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

COMPRESS_WHITE_SPACE also replaces multiple spaces with one space.

HTML_ENTITY_DECODE

Use this option to replace HTML-encoded characters with unencoded characters.

HTML_ENTITY_DECODE performs the following operations:

- Replaces (ampersand)quot; with "
- Replaces (ampersand)nbsnbsp; with a non-breaking space, decimal 160
- Replaces (ampersand)lt; with a "less than" symbol
- Replaces (ampersand)gt; with >
- Replaces characters that are represented in hexadecimal format, (ampersand)#xhhhh;, with the corresponding characters
- Replaces characters that are represented in decimal format, (ampersand)#nnnn;, with the corresponding characters

LOWERCASE

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

URL_DECODE

Use this option to decode a URL-encoded value.

NONE

Specify NONE if you don't want to perform any text transformations.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE | CMD_LINE | URL_DECODE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexPatternSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The `RegexPatternSet` specifies the regular expression (regex) pattern that you want AWS WAF to search for, such as `B[a@]dB[o0]t`. You can then configure AWS WAF to reject those requests.

Contents

Name

A friendly name or description of the [RegexPatternSet \(p. 1039\)](#). You can't change `Name` after you create a `RegexPatternSet`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

RegexPatternSetId

The identifier for the `RegexPatternSet`. You use `RegexPatternSetId` to get information about a `RegexPatternSet`, update a `RegexPatternSet`, remove a `RegexPatternSet` from a `RegexMatchSet`, and delete a `RegexPatternSet` from AWS WAF.

`RegexMatchSetId` is returned by [CreateRegexPatternSet \(p. 535\)](#) and by [ListRegexPatternSets \(p. 676\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

RegexPatternStrings

Specifies the regular expression (regex) patterns that you want AWS WAF to search for, such as `B[a@]dB[o0]t`.

Type: Array of strings

Array Members: Maximum number of 10 items.

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: `.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexPatternSetSummary

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Returned by [ListRegexPatternSets \(p. 676\)](#). Each RegexPatternSetSummary object includes the Name and RegexPatternSetId for one [RegexPatternSet \(p. 1039\)](#).

Contents

Name

A friendly name or description of the [RegexPatternSet \(p. 1039\)](#). You can't change Name after you create a RegexPatternSet.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: Yes

RegexPatternSetId

The RegexPatternSetId for a RegexPatternSet. You use RegexPatternSetId to get information about a RegexPatternSet, update a RegexPatternSet, remove a RegexPatternSet from a RegexMatchSet, and delete a RegexPatternSet from AWS WAF.

RegexPatternSetId is returned by [CreateRegexPatternSet \(p. 535\)](#) and by [ListRegexPatternSets \(p. 676\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RegexPatternSetUpdate

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In an [UpdateRegexPatternSet \(p. 739\)](#) request, RegexPatternSetUpdate specifies whether to insert or delete a RegexPatternString and includes the settings for the RegexPatternString.

Contents

Action

Specifies whether to insert or delete a RegexPatternString.

Type: String

Valid Values: INSERT | DELETE

Required: Yes

RegexPatternString

Specifies the regular expression (regex) pattern that you want AWS WAF to search for, such as B[a@]dB[oO]t.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 512.

Pattern: .*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Rule

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A combination of [ByteMatchSet \(p. 1000\)](#), [IPSet \(p. 1020\)](#), and/or [SqlInjectionMatchSet \(p. 1060\)](#) objects that identify the web requests that you want to allow, block, or count. For example, you might create a Rule that includes the following predicates:

- An IPSet that causes AWS WAF to search for web requests that originate from the IP address 192.0.2.44
- A ByteMatchSet that causes AWS WAF to search for web requests for which the value of the User-Agent header is BadBot.

To match the settings in this Rule, a request must originate from 192.0.2.44 AND include a User-Agent header for which the value is BadBot.

Contents

MetricName

A friendly name or description for the metrics for this Rule. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change MetricName after you create the Rule.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: No

Name

The friendly name or description for the Rule. You can't change the name of a Rule after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: No

Predicates

The Predicates object contains one Predicate element for each [ByteMatchSet \(p. 1000\)](#), [IPSet \(p. 1020\)](#), or [SqlInjectionMatchSet \(p. 1060\)](#) object that you want to include in a Rule.

Type: Array of [Predicate \(p. 1028\)](#) objects

Required: Yes

RuleId

A unique identifier for a Rule. You use RuleId to get more information about a Rule (see [GetRule \(p. 633\)](#)), update a Rule (see [UpdateRule \(p. 743\)](#)), insert a Rule into a WebACL or delete a one from a WebACL (see [UpdateWebACL \(p. 760\)](#)), or delete a Rule from AWS WAF (see [DeleteRule \(p. 589\)](#)).

RuleId is returned by [CreateRule \(p. 538\)](#) and by [ListRules \(p. 685\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RuleGroup

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A collection of predefined rules that you can add to a web ACL.

Rule groups are subject to the following limits:

- Three rule groups per account. You can request an increase to this limit by contacting customer support.
- One rule group per web ACL.
- Ten rules per rule group.

Contents

MetricName

A friendly name or description for the metrics for this RuleGroup. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RuleGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: No

Name

The friendly name or description for the RuleGroup. You can't change the name of a RuleGroup after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: No

RuleGroupId

A unique identifier for a RuleGroup. You use RuleGroupId to get more information about a RuleGroup (see [GetRuleGroup \(p. 635\)](#)), update a RuleGroup (see [UpdateRuleGroup \(p. 747\)](#)), insert a RuleGroup into a WebACL or delete a one from a WebACL (see [UpdateWebACL \(p. 760\)](#)), or delete a RuleGroup from AWS WAF (see [DeleteRuleGroup \(p. 592\)](#)).

RuleGroupId is returned by [CreateRuleGroup \(p. 542\)](#) and by [ListRuleGroups \(p. 682\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\$.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RuleGroupSummary

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the friendly name or description of the RuleGroup.

Contents

Name

A friendly name or description of the RuleGroup ([p. 1045](#)). You can't change the name of a RuleGroup after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

RuleGroupId

A unique identifier for a RuleGroup. You use RuleGroupId to get more information about a RuleGroup (see [GetRuleGroup \(p. 635\)](#)), update a RuleGroup (see [UpdateRuleGroup \(p. 747\)](#)), insert a RuleGroup into a WebACL or delete one from a WebACL (see [UpdateWebACL \(p. 760\)](#)), or delete a RuleGroup from AWS WAF (see [DeleteRuleGroup \(p. 592\)](#)).

RuleGroupId is returned by [CreateRuleGroup \(p. 542\)](#) and by [ListRuleGroups \(p. 682\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RuleGroupUpdate

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies an `ActivatedRule` and indicates whether you want to add it to a `RuleGroup` or delete it from a `RuleGroup`.

Contents

Action

Specify `INSERT` to add an `ActivatedRule` to a `RuleGroup`. Use `DELETE` to remove an `ActivatedRule` from a `RuleGroup`.

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

ActivatedRule

The `ActivatedRule` object specifies a `Rule` that you want to insert or delete, the priority of the `Rule` in the `WebACL`, and the action that you want AWS WAF to take when a web request matches the `Rule` (`ALLOW`, `BLOCK`, or `COUNT`).

Type: [ActivatedRule \(p. 997\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RuleSummary

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the friendly name or description of the Rule.

Contents

Name

A friendly name or description of the Rule ([p. 1043](#)). You can't change the name of a Rule after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

RuleId

A unique identifier for a Rule. You use RuleId to get more information about a Rule (see [GetRule \(p. 633\)](#)), update a Rule (see [UpdateRule \(p. 743\)](#)), insert a Rule into a WebACL or delete one from a WebACL (see [UpdateWebACL \(p. 760\)](#)), or delete a Rule from AWS WAF (see [DeleteRule \(p. 589\)](#)).

RuleId is returned by [CreateRule \(p. 538\)](#) and by [ListRules \(p. 685\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

RuleUpdate

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies a **Predicate** (such as an **IPSet**) and indicates whether you want to add it to a **Rule** or delete it from a **Rule**.

Contents

Action

Specify **INSERT** to add a **Predicate** to a **Rule**. Use **DELETE** to remove a **Predicate** from a **Rule**.

Type: String

Valid Values: **INSERT** | **DELETE**

Required: Yes

Predicate

The ID of the **Predicate** (such as an **IPSet**) that you want to add to a **Rule**.

Type: [Predicate \(p. 1028\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SampledHTTPRequest

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The response from a [GetSampledRequests \(p. 637\)](#) request includes a `SampledHTTPRequests` complex type that appears as `SampledRequests` in the response syntax. `SampledHTTPRequests` contains one `SampledHTTPRequest` object for each web request that is returned by `GetSampledRequests`.

Contents

Action

The action for the Rule that the request matched: ALLOW, BLOCK, or COUNT.

Type: String

Required: No

Request

A complex type that contains detailed information about the request.

Type: [HTTPRequest \(p. 1018\)](#) object

Required: Yes

RuleWithinRuleGroup

This value is returned if the `GetSampledRequests` request specifies the ID of a `RuleGroup` rather than the ID of an individual rule. `RuleWithinRuleGroup` is the rule within the specified `RuleGroup` that matched the request listed in the response.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

Timestamp

The time at which AWS WAF received the request from your AWS resource, in Unix time format (in seconds).

Type: Timestamp

Required: No

Weight

A value that indicates how one result in the response relates proportionally to other results in the response. A result that has a weight of 2 represents roughly twice as many Amazon CloudFront web requests as a result that has a weight of 1.

Type: Long

Valid Range: Minimum value of 0.

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SizeConstraint

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies a constraint on the size of a part of the web request. AWS WAF uses the `Size`, `ComparisonOperator`, and `FieldToMatch` to build an expression in the form of "Size ComparisonOperator size in bytes of FieldToMatch". If that expression is true, the `SizeConstraint` is considered to match.

Contents

ComparisonOperator

The type of comparison you want AWS WAF to perform. AWS WAF uses this in combination with the provided `Size` and `FieldToMatch` to build an expression in the form of "Size ComparisonOperator size in bytes of FieldToMatch". If that expression is true, the `SizeConstraint` is considered to match.

EQ: Used to test if the `Size` is equal to the size of the `FieldToMatch`

NE: Used to test if the `Size` is not equal to the size of the `FieldToMatch`

LE: Used to test if the `Size` is less than or equal to the size of the `FieldToMatch`

LT: Used to test if the `Size` is strictly less than the size of the `FieldToMatch`

GE: Used to test if the `Size` is greater than or equal to the size of the `FieldToMatch`

GT: Used to test if the `Size` is strictly greater than the size of the `FieldToMatch`

Type: String

Valid Values: EQ | NE | LE | LT | GE | GT

Required: Yes

FieldToMatch

Specifies where in a web request to look for the size constraint.

Type: [FieldToMatch \(p. 1009\)](#) object

Required: Yes

Size

The size in bytes that you want AWS WAF to compare against the size of the specified `FieldToMatch`. AWS WAF uses this in combination with `ComparisonOperator` and `FieldToMatch` to build an expression in the form of "Size ComparisonOperator size in bytes of FieldToMatch". If that expression is true, the `SizeConstraint` is considered to match.

Valid values for size are 0 - 21474836480 bytes (0 - 20 GB).

If you specify `URI` for the value of `Type`, the / in the URI path that you specify counts as one character. For example, the URI /logo.jpg is nine characters long.

Type: Long

Valid Range: Minimum value of 0. Maximum value of 21474836480.

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on `FieldToMatch` before inspecting it for a match.

You can only specify a single type of `TextTransformation`.

Note that if you choose `BODY` for the value of `Type`, you must choose `NONE` for `TextTransformation` because Amazon CloudFront forwards only the first 8192 bytes for inspection.

NONE

Specify `NONE` if you don't want to perform any text transformations.

CMD_LINE

When you're concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \ " ^
- Delete spaces before the following characters: / (
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

COMPRESS_WHITE_SPACE

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

`COMPRESS_WHITE_SPACE` also replaces multiple spaces with one space.

HTML_ENTITY_DECODE

Use this option to replace HTML-encoded characters with unencoded characters.

`HTML_ENTITY_DECODE` performs the following operations:

- Replaces `(ampersand)quot;` with "
- Replaces `(ampersand)nnbsp;` with a non-breaking space, decimal 160
- Replaces `(ampersand)lt;` with a "less than" symbol
- Replaces `(ampersand)gt;` with >
- Replaces characters that are represented in hexadecimal format, `(ampersand)#xhhhh;`, with the corresponding characters

- Replaces characters that are represented in decimal format, `(ampersand)#nnnn;`, with the corresponding characters

LOWERCASE

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

URL_DECODE

Use this option to decode a URL-encoded value.

Type: String

Valid Values: NONE | COMPRESS_WHITE_SPACE | HTML_ENTITY_DECODE | LOWERCASE |
CMD_LINE | URL_DECODE

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SizeConstraintSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A complex type that contains `SizeConstraint` objects, which specify the parts of web requests that you want AWS WAF to inspect the size of. If a `SizeConstraintSet` contains more than one `SizeConstraint` object, a request only needs to match one constraint to be considered a match.

Contents

Name

The name, if any, of the `SizeConstraintSet`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

SizeConstraints

Specifies the parts of web requests that you want to inspect the size of.

Type: Array of [SizeConstraint \(p. 1053\)](#) objects

Required: Yes

SizeConstraintSetId

A unique identifier for a `SizeConstraintSet`. You use `SizeConstraintSetId` to get information about a `SizeConstraintSet` (see [GetSizeConstraintSet \(p. 641\)](#)), update a `SizeConstraintSet` (see [UpdateSizeConstraintSet \(p. 751\)](#)), insert a `SizeConstraintSet` into a `Rule` or delete one from a `Rule` (see [UpdateRule \(p. 743\)](#)), and delete a `SizeConstraintSet` from AWS WAF (see [DeleteSizeConstraintSet \(p. 595\)](#)).

`SizeConstraintSetId` is returned by [CreateSizeConstraintSet \(p. 546\)](#) and by [ListSizeConstraintSets \(p. 688\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SizeConstraintSetSummary

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The `Id` and `Name` of a `SizeConstraintSet`.

Contents

Name

The name of the `SizeConstraintSet`, if any.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

SizeConstraintSetId

A unique identifier for a `SizeConstraintSet`. You use `SizeConstraintSetId` to get information about a `SizeConstraintSet` (see [GetSizeConstraintSet \(p. 641\)](#)), update a `SizeConstraintSet` (see [UpdateSizeConstraintSet \(p. 751\)](#)), insert a `SizeConstraintSet` into a `Rule` or delete one from a `Rule` (see [UpdateRule \(p. 743\)](#)), and delete a `SizeConstraintSet` from AWS WAF (see [DeleteSizeConstraintSet \(p. 595\)](#)).

`SizeConstraintSetId` is returned by [CreateSizeConstraintSet \(p. 546\)](#) and by [ListSizeConstraintSets \(p. 688\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SizeConstraintSetUpdate

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want to inspect the size of and indicates whether you want to add the specification to a [SizeConstraintSet \(p. 1056\)](#) or delete it from a [SizeConstraintSet](#).

Contents

Action

Specify `INSERT` to add a [SizeConstraintSetUpdate \(p. 1059\)](#) to a [SizeConstraintSet \(p. 1056\)](#). Use `DELETE` to remove a [SizeConstraintSetUpdate](#) from a [SizeConstraintSet](#).

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

SizeConstraint

Specifies a constraint on the size of a part of the web request. AWS WAF uses the `Size`, `ComparisonOperator`, and `FieldToMatch` to build an expression in the form of "`Size ComparisonOperator size in bytes of FieldToMatch`". If that expression is true, the `SizeConstraint` is considered to match.

Type: [SizeConstraint \(p. 1053\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SqlInjectionMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A complex type that contains [SqlInjectionMatchTuple](#) objects, which specify the parts of web requests that you want AWS WAF to inspect for snippets of malicious SQL code and, if you want AWS WAF to inspect a header, the name of the header. If a [SqlInjectionMatchSet](#) contains more than one [SqlInjectionMatchTuple](#) object, a request needs to include snippets of SQL code in only one of the specified parts of the request to be considered a match.

Contents

Name

The name, if any, of the [SqlInjectionMatchSet](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

SqlInjectionMatchSetId

A unique identifier for a [SqlInjectionMatchSet](#). You use [SqlInjectionMatchSetId](#) to get information about a [SqlInjectionMatchSet](#) (see [GetSqlInjectionMatchSet \(p. 644\)](#)), update a [SqlInjectionMatchSet](#) (see [UpdateSqlInjectionMatchSet \(p. 756\)](#)), insert a [SqlInjectionMatchSet](#) into a [Rule](#) or delete one from a [Rule](#) (see [UpdateRule \(p. 743\)](#)), and delete a [SqlInjectionMatchSet](#) from AWS WAF (see [DeleteSqlInjectionMatchSet \(p. 598\)](#)).

[SqlInjectionMatchSetId](#) is returned by [CreateSqlInjectionMatchSet \(p. 550\)](#) and by [ListSqlInjectionMatchSets \(p. 691\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

SqlInjectionMatchTuples

Specifies the parts of web requests that you want to inspect for snippets of malicious SQL code.

Type: Array of [SqlInjectionMatchTuple \(p. 1064\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SqlInjectionMatchSetSummary

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The `Id` and `Name` of a `SqlInjectionMatchSet`.

Contents

Name

The name of the `SqlInjectionMatchSet`, if any, specified by `Id`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

SqlInjectionMatchSetId

A unique identifier for a `SqlInjectionMatchSet`. You use `SqlInjectionMatchSetId` to get information about a `SqlInjectionMatchSet` (see [GetSqlInjectionMatchSet \(p. 644\)](#)), update a `SqlInjectionMatchSet` (see [UpdateSqlInjectionMatchSet \(p. 756\)](#)), insert a `SqlInjectionMatchSet` into a `Rule` or delete one from a `Rule` (see [UpdateRule \(p. 743\)](#)), and delete a `SqlInjectionMatchSet` from AWS WAF (see [DeleteSqlInjectionMatchSet \(p. 598\)](#)).

`SqlInjectionMatchSetId` is returned by [CreateSqlInjectionMatchSet \(p. 550\)](#) and by [ListSqlInjectionMatchSets \(p. 691\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SqlInjectionMatchSetUpdate

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want to inspect for snippets of malicious SQL code and indicates whether you want to add the specification to a [SqlInjectionMatchSet \(p. 1060\)](#) or delete it from a [SqlInjectionMatchSet](#).

Contents

Action

Specify `INSERT` to add a [SqlInjectionMatchSetUpdate \(p. 1063\)](#) to a [SqlInjectionMatchSet \(p. 1060\)](#). Use `DELETE` to remove a [SqlInjectionMatchSetUpdate](#) from a [SqlInjectionMatchSet](#).

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

SqlInjectionMatchTuple

Specifies the part of a web request that you want AWS WAF to inspect for snippets of malicious SQL code and, if you want AWS WAF to inspect a header, the name of the header.

Type: [SqlInjectionMatchTuple \(p. 1064\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SqlInjectionMatchTuple

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want AWS WAF to inspect for snippets of malicious SQL code and, if you want AWS WAF to inspect a header, the name of the header.

Contents

FieldToMatch

Specifies where in a web request to look for snippets of malicious SQL code.

Type: [FieldToMatch \(p. 1009\)](#) object

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on `FieldToMatch` before inspecting it for a match.

You can only specify a single type of `TextTransformation`.

CMD_LINE

When you're concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \ " ^
- Delete spaces before the following characters: / (
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

COMPRESS_WHITE_SPACE

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

`COMPRESS_WHITE_SPACE` also replaces multiple spaces with one space.

HTML_ENTITY_DECODE

Use this option to replace HTML-encoded characters with unencoded characters.

`HTML_ENTITY_DECODE` performs the following operations:

- Replaces `(ampersand)quot;` with "
- Replaces `(ampersand)nbsps;` with a non-breaking space, decimal 160
- Replaces `(ampersand)lt;` with a "less than" symbol
- Replaces `(ampersand)gt;` with >
- Replaces characters that are represented in hexadecimal format, `(ampersand)#xhhhh;`, with the corresponding characters
- Replaces characters that are represented in decimal format, `(ampersand)#nnnn;`, with the corresponding characters

LOWERCASE

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

URL_DECODE

Use this option to decode a URL-encoded value.

NONE

Specify `NONE` if you don't want to perform any text transformations.

Type: String

Valid Values: `NONE` | `COMPRESS_WHITE_SPACE` | `HTML_ENTITY_DECODE` | `LOWERCASE` | `CMD_LINE` | `URL_DECODE`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

SubscribedRuleGroupSummary

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A summary of the rule groups you are subscribed to.

Contents

MetricName

A friendly name or description for the metrics for this RuleGroup. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change the name of the metric after you create the RuleGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

Name

A friendly name or description of the RuleGroup. You can't change the name of a RuleGroup after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

RuleGroupId

A unique identifier for a RuleGroup.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Tag

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

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. For example, 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.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Contents

Key

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

Value

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: .*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

TagInfoForResource

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Information for 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. For example, 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.

Tagging is only available through the API, SDKs, and CLI. You can't manage or view tags through the AWS WAF Classic console. You can tag the AWS resources that you manage through AWS WAF Classic: web ACLs, rule groups, and rules.

Contents

ResourceARN

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\s.*

Required: No

TagList

Type: Array of [Tag \(p. 1068\)](#) objects

Array Members: Minimum number of 1 item.

Required: No

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

TimeWindow

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

In a [GetSampledRequests \(p. 637\)](#) request, the `StartTime` and `EndTime` objects specify the time range for which you want AWS WAF to return a sample of web requests.

You must specify the times in Coordinated Universal Time (UTC) format. UTC format includes the special designator, `z`. For example, "2016-09-27T14:50Z".

In a [GetSampledRequests \(p. 637\)](#) response, the `StartTime` and `EndTime` objects specify the time range for which AWS WAF actually returned a sample of web requests. AWS WAF gets the specified number of requests from among the first 5,000 requests that your AWS resource receives during the specified time period. If your resource receives more than 5,000 requests during that period, AWS WAF stops sampling after the 5,000th request. In that case, `EndTime` is the time that AWS WAF received the 5,000th request.

Contents

EndTime

The end of the time range from which you want `GetSampledRequests` to return a sample of the requests that your AWS resource received. You must specify the date and time in Coordinated Universal Time (UTC) format. UTC format includes the special designator, `z`. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: Timestamp

Required: Yes

StartTime

The beginning of the time range from which you want `GetSampledRequests` to return a sample of the requests that your AWS resource received. You must specify the date and time in Coordinated Universal Time (UTC) format. UTC format includes the special designator, `z`. For example, "2016-09-27T14:50Z". You can specify any time range in the previous three hours.

Type: Timestamp

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

WafAction

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

For the action that is associated with a rule in a WebACL, specifies the action that you want AWS WAF to perform when a web request matches all of the conditions in a rule. For the default action in a WebACL, specifies the action that you want AWS WAF to take when a web request doesn't match all of the conditions in any of the rules in a WebACL.

Contents

Type

Specifies how you want AWS WAF to respond to requests that match the settings in a Rule. Valid settings include the following:

- **ALLOW**: AWS WAF allows requests
- **BLOCK**: AWS WAF blocks requests
- **COUNT**: AWS WAF increments a counter of the requests that match all of the conditions in the rule. AWS WAF then continues to inspect the web request based on the remaining rules in the web ACL. You can't specify COUNT for the default action for a WebACL.

Type: String

Valid Values: BLOCK | ALLOW | COUNT

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

WafOverrideAction

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The action to take if any rule within the `RuleGroup` matches a request.

Contents

Type

`COUNT` overrides the action specified by the individual rule within a `RuleGroup`. If set to `NONE`, the rule's action will take place.

Type: String

Valid Values: `NONE` | `COUNT`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

WebACL

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the Rules that identify the requests that you want to allow, block, or count. In a WebACL, you also specify a default action (ALLOW or BLOCK), and the action for each Rule that you add to a WebACL, for example, block requests from specified IP addresses or block requests from specified referrers. You also associate the WebACL with an Amazon CloudFront distribution to identify the requests that you want AWS WAF to filter. If you add more than one Rule to a WebACL, a request needs to match only one of the specifications to be allowed, blocked, or counted. For more information, see [UpdateWebACL \(p. 760\)](#).

Contents

DefaultAction

The action to perform if none of the Rules contained in the WebACL match. The action is specified by the [WafAction \(p. 1071\)](#) object.

Type: [WafAction \(p. 1071\)](#) object

Required: Yes

MetricName

A friendly name or description for the metrics for this WebACL. The name can contain only alphanumeric characters (A-Z, a-z, 0-9), with maximum length 128 and minimum length one. It can't contain whitespace or metric names reserved for AWS WAF, including "All" and "Default_Action." You can't change MetricName after you create the WebACL.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: No

Name

A friendly name or description of the WebACL. You can't change the name of a WebACL after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: No

Rules

An array that contains the action for each Rule in a WebACL, the priority of the Rule, and the ID of the Rule.

Type: Array of [ActivatedRule \(p. 997\)](#) objects

Required: Yes

WebACLArn

The Amazon Resource Name (ARN) of the web ACL.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 1224.

Pattern: .*\\$.*

Required: No

WebACLIId

A unique identifier for a WebACL. You use `WebACLIId` to get information about a WebACL (see [GetWebACL \(p. 647\)](#)), update a WebACL (see [UpdateWebACL \(p. 760\)](#)), and delete a WebACL from AWS WAF (see [DeleteWebACL \(p. 601\)](#)).

`WebACLIId` is returned by [CreateWebACL \(p. 554\)](#) and by [ListWebACLS \(p. 700\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\\$.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

WebACLSummary

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Contains the identifier and the name or description of the [WebACL \(p. 1073\)](#).

Contents

Name

A friendly name or description of the [WebACL \(p. 1073\)](#). You can't change the name of a WebACL after you create it.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

WebACLIId

A unique identifier for a WebACL. You use `WebACLIId` to get information about a WebACL (see [GetWebACL \(p. 647\)](#)), update a WebACL (see [UpdateWebACL \(p. 760\)](#)), and delete a WebACL from AWS WAF (see [DeleteWebACL \(p. 601\)](#)).

`WebACLIId` is returned by [CreateWebACL \(p. 554\)](#) and by [ListWebACLS \(p. 700\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: .*\S.*

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

WebACLUpdate

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies whether to insert a Rule into or delete a Rule from a WebACL.

Contents

Action

Specifies whether to insert a Rule into or delete a Rule from a WebACL.

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

ActivatedRule

The ActivatedRule object in an UpdateWebACL request specifies a Rule that you want to insert or delete, the priority of the Rule in the WebACL, and the action that you want AWS WAF to take when a web request matches the Rule (ALLOW, BLOCK, or COUNT).

Type: [ActivatedRule](#) (p. 997) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

XssMatchSet

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

A complex type that contains `XssMatchTuple` objects, which specify the parts of web requests that you want AWS WAF to inspect for cross-site scripting attacks and, if you want AWS WAF to inspect a header, the name of the header. If a `XssMatchSet` contains more than one `XssMatchTuple` object, a request needs to include cross-site scripting attacks in only one of the specified parts of the request to be considered a match.

Contents

Name

The name, if any, of the `XssMatchSet`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: No

XssMatchSetId

A unique identifier for an `XssMatchSet`. You use `XssMatchSetId` to get information about an `XssMatchSet` (see [GetXssMatchSet \(p. 653\)](#)), update an `XssMatchSet` (see [UpdateXssMatchSet \(p. 765\)](#)), insert an `XssMatchSet` into a `Rule` or delete one from a `Rule` (see [UpdateRule \(p. 743\)](#)), and delete an `XssMatchSet` from AWS WAF (see [DeleteXssMatchSet \(p. 604\)](#)).

`XssMatchSetId` is returned by [CreateXssMatchSet \(p. 563\)](#) and by [ListXssMatchSets \(p. 703\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

XssMatchTuples

Specifies the parts of web requests that you want to inspect for cross-site scripting attacks.

Type: Array of [XssMatchTuple \(p. 1081\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

XssMatchSetSummary

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

The `Id` and `Name` of an `XssMatchSet`.

Contents

Name

The name of the `XssMatchSet`, if any, specified by `Id`.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

XssMatchSetId

A unique identifier for an `XssMatchSet`. You use `XssMatchSetId` to get information about a `XssMatchSet` (see [GetXssMatchSet \(p. 653\)](#)), update an `XssMatchSet` (see [UpdateXssMatchSet \(p. 765\)](#)), insert an `XssMatchSet` into a `Rule` or delete one from a `Rule` (see [UpdateRule \(p. 743\)](#)), and delete an `XssMatchSet` from AWS WAF (see [DeleteXssMatchSet \(p. 604\)](#)).

`XssMatchSetId` is returned by [CreateXssMatchSet \(p. 563\)](#) and by [ListXssMatchSets \(p. 703\)](#).

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: `.*\S.*`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

XssMatchSetUpdate

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want to inspect for cross-site scripting attacks and indicates whether you want to add the specification to an [XssMatchSet \(p. 1077\)](#) or delete it from an [XssMatchSet](#).

Contents

Action

Specify `INSERT` to add an [XssMatchSetUpdate \(p. 1080\)](#) to an [XssMatchSet \(p. 1077\)](#). Use `DELETE` to remove an [XssMatchSetUpdate](#) from an [XssMatchSet](#).

Type: String

Valid Values: `INSERT` | `DELETE`

Required: Yes

XssMatchTuple

Specifies the part of a web request that you want AWS WAF to inspect for cross-site scripting attacks and, if you want AWS WAF to inspect a header, the name of the header.

Type: [XssMatchTuple \(p. 1081\)](#) 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 Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

XssMatchTuple

Service: AWS WAF Classic Regional

Note

This is **AWS WAF Classic** documentation. For more information, see [AWS WAF Classic](#) in the developer guide.

For the latest version of AWS WAF, use the AWS WAFV2 API and see the [AWS WAF Developer Guide](#). With the latest version, AWS WAF has a single set of endpoints for regional and global use.

Specifies the part of a web request that you want AWS WAF to inspect for cross-site scripting attacks and, if you want AWS WAF to inspect a header, the name of the header.

Contents

FieldToMatch

Specifies where in a web request to look for cross-site scripting attacks.

Type: [FieldToMatch \(p. 1009\)](#) object

Required: Yes

TextTransformation

Text transformations eliminate some of the unusual formatting that attackers use in web requests in an effort to bypass AWS WAF. If you specify a transformation, AWS WAF performs the transformation on `FieldToMatch` before inspecting it for a match.

You can only specify a single type of `TextTransformation`.

CMD_LINE

When you're concerned that attackers are injecting an operating system command line command and using unusual formatting to disguise some or all of the command, use this option to perform the following transformations:

- Delete the following characters: \ " ' ^
- Delete spaces before the following characters: / (
- Replace the following characters with a space: , ;
- Replace multiple spaces with one space
- Convert uppercase letters (A-Z) to lowercase (a-z)

COMPRESS_WHITE_SPACE

Use this option to replace the following characters with a space character (decimal 32):

- \f, formfeed, decimal 12
- \t, tab, decimal 9
- \n, newline, decimal 10
- \r, carriage return, decimal 13
- \v, vertical tab, decimal 11
- non-breaking space, decimal 160

`COMPRESS_WHITE_SPACE` also replaces multiple spaces with one space.

HTML_ENTITY_DECODE

Use this option to replace HTML-encoded characters with unencoded characters.

`HTML_ENTITY_DECODE` performs the following operations:

- Replaces `(ampersand)quot;` with "
- Replaces `(ampersand)nbsps;` with a non-breaking space, decimal 160
- Replaces `(ampersand)lt;` with a "less than" symbol
- Replaces `(ampersand)gt;` with >
- Replaces characters that are represented in hexadecimal format, `(ampersand)#xhhhh;`, with the corresponding characters
- Replaces characters that are represented in decimal format, `(ampersand)#nnnn;`, with the corresponding characters

LOWERCASE

Use this option to convert uppercase letters (A-Z) to lowercase (a-z).

URL_DECODE

Use this option to decode a URL-encoded value.

NONE

Specify `NONE` if you don't want to perform any text transformations.

Type: String

Valid Values: `NONE` | `COMPRESS_WHITE_SPACE` | `HTML_ENTITY_DECODE` | `LOWERCASE` | `CMD_LINE` | `URL_DECODE`

Required: Yes

See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Go](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see [Signature Version 4 Signing Process](#) in the *Amazon Web Services General Reference*.

Action

The action to be performed.

Type: string

Required: Yes

Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: AWS4-HMAC-SHA256

Required: Conditional

X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4_request"). The value is expressed in the following format: *access_key/YYYYMMDD/service/aws4_request*.

For more information, see [Task 2: Create a String to Sign for Signature Version 4](#) in the *Amazon Web Services General Reference*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-Date

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: 20120325T120000Z.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is

not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see [Handling Dates in Signature Version 4](#) in the *Amazon Web Services General Reference*.

Type: string

Required: Conditional

X-Amz-Security-Token

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS Security Token Service, go to [AWS Services That Work with IAM](#) in the *IAM User Guide*.

Condition: If you're using temporary security credentials from the AWS Security Token Service, you must include the security token.

Type: string

Required: Conditional

X-Amz-Signature

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

X-Amz-SignedHeaders

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see [Task 1: Create a Canonical Request For Signature Version 4](#) in the *Amazon Web Services General Reference*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

Common Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 400

InternalFailure

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

InvalidAction

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

InvalidClientId

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

InvalidParameterCombination

Parameters that must not be used together were used together.

HTTP Status Code: 400

InvalidParameterValue

An invalid or out-of-range value was supplied for the input parameter.

HTTP Status Code: 400

InvalidQueryParameter

The AWS query string is malformed or does not adhere to AWS standards.

HTTP Status Code: 400

MalformedQueryString

The query string contains a syntax error.

HTTP Status Code: 404

MissingAction

The request is missing an action or a required parameter.

HTTP Status Code: 400

MissingAuthenticationToken

The request must contain either a valid (registered) AWS access key ID or X.509 certificate.

HTTP Status Code: 403

MissingParameter

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

NotAuthorized

You do not have permission to perform this action.

HTTP Status Code: 400

OptInRequired

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

RequestExpired

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

ServiceUnavailable

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 400

ValidationException

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400