Amazon CodeGuru

API Reference

API Version 2019-07-18

Amazon CodeGuru: API Reference

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Welcome

This section provides documentation for the Amazon CodeGuru Profiler API operations.

Amazon CodeGuru Profiler collects runtime performance data from your live applications, and provides recommendations that can help you fine-tune your application performance. Using machine learning algorithms, CodeGuru Profiler can help you find your most expensive lines of code and suggest ways you can improve efficiency and remove CPU bottlenecks.

Amazon CodeGuru Profiler provides different visualizations of profiling data to help you identify what code is running on the CPU, see how much time is consumed, and suggest ways to reduce CPU utilization.

Note
Amazon CodeGuru Profiler currently supports applications written in all Java virtual machine (JVM) languages and Python. While CodeGuru Profiler supports both visualizations and recommendations for applications written in Java, it can also generate visualizations and a subset of recommendations for applications written in other JVM languages and Python.

For more information, see What is Amazon CodeGuru Profiler in the *Amazon CodeGuru Profiler User Guide*.

This document was last published on October 6, 2021.

Actions

The following actions are supported:

AddNotificationChannels

Add up to 2 anomaly notifications channels for a profiling group.

Request Syntax

```
POST /profilingGroups/profilingGroupName/notificationConfiguration HTTP/1.1
Content-type: application/json

{
   "channels": [
      {
         "eventPublishers": [ "string" ],
         "id": "string",
         "uri": "string"
      }
   ]
}
```

URI Request Parameters

The request uses the following URI parameters.

profilingGroupName (p. 3)

The name of the profiling group that we are setting up notifications for.

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

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

channels (p. 3)

One or 2 channels to report to when anomalies are detected.

Type: Array of Channel (p. 71) objects

Array Members: Minimum number of 1 item. Maximum number of 2 items.

Required: Yes

Response Syntax

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

{
   "notificationConfiguration": {
      "channels": [
```

```
        {
            "eventPublishers": [ "string" ],
            "id": "string",
            "uri": "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.

notificationConfiguration (p. 3)

The new notification configuration for this profiling group.

Type: NotificationConfiguration (p. 78) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

ConflictException

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

HTTP Status Code: 409

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ServiceQuotaExceededException

You have exceeded your service quota. To perform the requested action, remove some of the relevant resources, or use Service Quotas to request a service quota increase.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

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

BatchGetFrameMetricData

Returns the time series of values for a requested list of frame metrics from a time period.

Request Syntax

```
POST /profilingGroups/profilingGroupName/frames/-/metrics?
endTime=endTime&period=period&startTime=startTime&targetResolution=targetResolution
 HTTP/1.1
Content-type: application/json

{
   "frameMetrics": [
      {
         "frameName": "string",
         "threadStates": [ "string" ],
         "type": "string"
      }
   ]
}
```

URI Request Parameters

The request uses the following URI parameters.

endTime (p. 6)

The end time of the time period for the returned time series values. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

period (p. 6)

The duration of the frame metrics used to return the time series values. Specify using the ISO 8601 format. The maximum period duration is one day (`PT24H` or `P1D`).

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

profilingGroupName (p. 6)

The name of the profiling group associated with the the frame metrics used to return the time series values.

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

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

Required: Yes

startTime (p. 6)

The start time of the time period for the frame metrics used to return the time series values. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

targetResolution (p. 6)

The requested resolution of time steps for the returned time series of values. If the requested target resolution is not available due to data not being retained we provide a best effort result by falling back to the most granular available resolution after the target resolution. There are 3 valid values.

- `P1D` — 1 day

- `PT1H` — 1 hour
- `PT5M` — 5 minutes

Valid Values: `PT5M` | `PT1H` | `P1D`

Request Body

The request accepts the following data in JSON format.

frameMetrics (p. 6)

The details of the metrics that are used to request a time series of values. The metric includes the name of the frame, the aggregation type to calculate the metric value for the frame, and the thread states to use to get the count for the metric value of the frame.

Type: Array of FrameMetric (p. 74) objects

Required: No

Response Syntax

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

{
   "endTime": number,
   "endTimes": [
      {
         "value": number
      }
   ],
   "frameMetricData": [
      {
         "frameMetric": {
            "frameName": "string",
            "threadStates": [ "string" ],
            "type": "string"
         },
         "values": [ number ]
      }
   ],
   "resolution": "string",
   "startTime": number,
   "unprocessedEndTimes": {
      "string" : [
         {
            "value": 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.

endTime (p. 7)

The end time of the time period for the returned time series values. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Type: Timestamp

endTimes (p. 7)

List of instances, or time steps, in the time series. For example, if the `period` is one day (`PT24H`), and the `resolution` is five minutes (`PT5M`), then there are 288 `endTimes` in the list that are each five minutes appart.

Type: Array of TimestampStructure (p. 87) objects

frameMetricData (p. 7)

Details of the metrics to request a time series of values. The metric includes the name of the frame, the aggregation type to calculate the metric value for the frame, and the thread states to use to get the count for the metric value of the frame.

Type: Array of FrameMetricDatum (p. 75) objects

resolution (p. 7)

Resolution or granularity of the profile data used to generate the time series. This is the value used to jump through time steps in a time series. There are 3 valid values.

- `P1D` — 1 day
- `PT1H` — 1 hour
- `PT5M` — 5 minutes

Type: String

Valid Values: `PT5M  |  PT1H  |  P1D`

startTime (p. 7)

The start time of the time period for the returned time series values. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Type: Timestamp

unprocessedEndTimes (p. 7)

List of instances which remained unprocessed. This will create a missing time step in the list of end times.

Type: String to array of TimestampStructure (p. 87) objects map

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

HTTP Status Code: 400

See Also

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ConfigureAgent

Used by profiler agents to report their current state and to receive remote configuration updates. For example, `ConfigureAgent` can be used to tell an agent whether to profile or not and for how long to return profiling data.

Request Syntax

```
POST /profilingGroups/profilingGroupName/configureAgent HTTP/1.1
Content-type: application/json

{
   "fleetInstanceId": "string",
   "metadata": {
      "string" : "string"
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

profilingGroupName (p. 10)

The name of the profiling group for which the configured agent is collecting profiling data.

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

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

fleetInstanceId (p. 10)

A universally unique identifier (UUID) for a profiling instance. For example, if the profiling instance is an Amazon EC2 instance, it is the instance ID. If it is an AWS Fargate container, it is the container's task ID.

Type: String

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

Required: No

metadata (p. 10)

Metadata captured about the compute platform the agent is running on. It includes information about sampling and reporting. The valid fields are:

- `COMPUTE_PLATFORM` - The compute platform on which the agent is running
- `AGENT_ID` - The ID for an agent instance.
- `AWS_REQUEST_ID` - The AWS request ID of a Lambda invocation.
- `EXECUTION_ENVIRONMENT` - The execution environment a Lambda function is running on.

- `LAMBDA_FUNCTION_ARN` - The Amazon Resource Name (ARN) that is used to invoke a Lambda function.
- `LAMBDA_MEMORY_LIMIT_IN_MB` - The memory allocated to a Lambda function.
- `LAMBDA_REMAINING_TIME_IN_MILLISECONDS` - The time in milliseconds before execution of a Lambda function times out.
- `LAMBDA_TIME_GAP_BETWEEN_INVOKES_IN_MILLISECONDS` - The time in milliseconds between two invocations of a Lambda function.
- `LAMBDA_PREVIOUS_EXECUTION_TIME_IN_MILLISECONDS` - The time in milliseconds for the previous Lambda invocation.

Type: String to string map

Valid Keys: `ComputePlatform | AgentId | AwsRequestId | ExecutionEnvironment | LambdaFunctionArn | LambdaMemoryLimitInMB | LambdaRemainingTimeInMilliseconds | LambdaTimeGapBetweenInvokesInMilliseconds | LambdaPreviousExecutionTimeInMilliseconds`

Required: No

Response Syntax

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

{
    "configuration": {
        "agentParameters": {
            "string" : "string"
        },
        "periodInSeconds": number,
        "shouldProfile": 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.

configuration (p. 11)

An `AgentConfiguration` object that specifies if an agent profiles or not and for how long to return profiling data.

Type: AgentConfiguration (p. 65) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

HTTP Status Code: 400

See Also

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

CreateProfilingGroup

Creates a profiling group.

Request Syntax

```
POST /profilingGroups?clientToken=clientToken HTTP/1.1
Content-type: application/json

{
   "agentOrchestrationConfig": {
      "profilingEnabled": boolean
   },
   "computePlatform": "string",
   "profilingGroupName": "string",
   "tags": {
      "string" : "string"
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

clientToken (p. 13)

Amazon CodeGuru Profiler uses this universally unique identifier (UUID) to prevent the accidental creation of duplicate profiling groups if there are failures and retries.

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

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

agentOrchestrationConfig (p. 13)

Specifies whether profiling is enabled or disabled for the created profiling group.

Type: AgentOrchestrationConfig (p. 67) object

Required: No

computePlatform (p. 13)

The compute platform of the profiling group. Use `AWSLambda` if your application runs on AWS Lambda. Use `Default` if your application runs on a compute platform that is not AWS Lambda, such an Amazon EC2 instance, an on-premises server, or a different platform. If not specified, `Default` is used.

Type: String

Valid Values: `Default | AWSLambda`

Required: No

profilingGroupName (p. 13)

The name of the profiling group to create.

Type: String

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

Pattern: ^[\w-]+$

Required: Yes

tags (p. 13)

A list of tags to add to the created profiling group.

Type: String to string map

Required: No

Response Syntax

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

{
    "profilingGroup": {
        "agentOrchestrationConfig": {
            "profilingEnabled": boolean
        },
        "arn": "string",
        "computePlatform": "string",
        "createdAt": number,
        "name": "string",
        "profilingStatus": {
            "latestAgentOrchestratedAt": number,
            "latestAgentProfileReportedAt": number,
            "latestAggregatedProfile": {
                "period": "string",
                "start": number
            }
        },
        "tags": {
            "string" : "string"
        },
        "updatedAt": number
    }
}
```

Response Elements

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

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

profilingGroup (p. 14)

The returned `ProfilingGroupDescription` object that contains information about the created profiling group.

Type: ProfilingGroupDescription (p. 82) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

ConflictException

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

HTTP Status Code: 409

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ServiceQuotaExceededException

You have exceeded your service quota. To perform the requested action, remove some of the relevant resources, or use Service Quotas to request a service quota increase.

HTTP Status Code: 402

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

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

DeleteProfilingGroup

Deletes a profiling group.

Request Syntax

```
DELETE /profilingGroups/profilingGroupName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

profilingGroupName (p. 16)

> The name of the profiling group to delete.
>
> Length Constraints: Minimum length of 1. Maximum length of 255.
>
> Pattern: ^[\w-]+$
>
> Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 204
```

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

ConflictException

> The requested operation would cause a conflict with the current state of a service resource associated with the request. Resolve the conflict before retrying this request.
>
> HTTP Status Code: 409

InternalServerException

> The server encountered an internal error and is unable to complete the request.
>
> HTTP Status Code: 500

ResourceNotFoundException

> The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

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
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- 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

DescribeProfilingGroup

Returns a `ProfilingGroupDescription` object that contains information about the requested profiling group.

Request Syntax

```
GET /profilingGroups/profilingGroupName HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

profilingGroupName (p. 18)

> The name of the profiling group to get information about.
>
> Length Constraints: Minimum length of 1. Maximum length of 255.
>
> Pattern: ^[\w-]+$
>
> Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
   "profilingGroup": {
      "agentOrchestrationConfig": {
         "profilingEnabled": boolean
      },
      "arn": "string",
      "computePlatform": "string",
      "createdAt": number,
      "name": "string",
      "profilingStatus": {
         "latestAgentOrchestratedAt": number,
         "latestAgentProfileReportedAt": number,
         "latestAggregatedProfile": {
            "period": "string",
            "start": number
         }
      },
      "tags": {
         "string" : "string"
      },
      "updatedAt": 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.

profilingGroup (p. 18)

The returned `ProfilingGroupDescription` object that contains information about the requested profiling group.

Type: ProfilingGroupDescription (p. 82) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

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
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- 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

GetFindingsReportAccountSummary

Returns a list of `FindingsReportSummary` objects that contain analysis results for all profiling groups in your AWS account.

Request Syntax

```
GET /internal/findingsReports?
dailyReportsOnly=dailyReportsOnly&maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

dailyReportsOnly (p. 20)

A `Boolean` value indicating whether to only return reports from daily profiles. If set to `True`, only analysis data from daily profiles is returned. If set to `False`, analysis data is returned from smaller time windows (for example, one hour).

maxResults (p. 20)

The maximum number of results returned by `GetFindingsReportAccountSummary` in paginated output. When this parameter is used, `GetFindingsReportAccountSummary` only returns `maxResults` results in a single page along with a `nextToken` response element. The remaining results of the initial request can be seen by sending another `GetFindingsReportAccountSummary` request with the returned `nextToken` value.

Valid Range: Minimum value of 1. Maximum value of 1000.

nextToken (p. 20)

The `nextToken` value returned from a previous paginated `GetFindingsReportAccountSummary` request where `maxResults` was used and the results exceeded the value of that parameter. Pagination continues from the end of the previous results that returned the `nextToken` value.

> **Note**
> This token should be treated as an opaque identifier that is only used to retrieve the next items in a list and not for other programmatic purposes.

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

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

Request Body

The request does not have a request body.

Response Syntax

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

{
   "nextToken": "string",
   "reportSummaries": [
      {
```

```
        "id": "string",
        "profileEndTime": number,
        "profileStartTime": number,
        "profilingGroupName": "string",
        "totalNumberOfFindings": number
      }
    ]
}
```

Response Elements

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

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

nextToken (p. 20)

The nextToken value to include in a future GetFindingsReportAccountSummary request. When the results of a GetFindingsReportAccountSummary request exceed maxResults, this value can be used to retrieve the next page of results. This value is null when there are no more results to return.

Type: String

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

Pattern: ^[\w-]+$

reportSummaries (p. 20)

The return list of FindingsReportSummary objects taht contain summaries of analysis results for all profiling groups in your AWS account.

Type: Array of FindingsReportSummary (p. 72) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

HTTP Status Code: 400

See Also

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- AWS SDK for PHP V3
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- AWS SDK for Ruby V3

GetNotificationConfiguration

Get the current configuration for anomaly notifications for a profiling group.

Request Syntax

```
GET /profilingGroups/profilingGroupName/notificationConfiguration HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

profilingGroupName (p. 23)

> The name of the profiling group we want to get the notification configuration for.
>
> Length Constraints: Minimum length of 1. Maximum length of 255.
>
> Pattern: ^[\w-]+$
>
> Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
    "notificationConfiguration": {
        "channels": [
            {
                "eventPublishers": [ "string" ],
                "id": "string",
                "uri": "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.

notificationConfiguration (p. 23)

> The current notification configuration for this profiling group.
>
> Type: NotificationConfiguration (p. 78) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

HTTP Status Code: 400

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- AWS SDK for Ruby V3

GetPolicy

Returns the JSON-formatted resource-based policy on a profiling group.

Request Syntax

```
GET /profilingGroups/profilingGroupName/policy HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

profilingGroupName (p. 25)

> The name of the profiling group.
>
> Length Constraints: Minimum length of 1. Maximum length of 255.
>
> Pattern: ^[\w-]+$
>
> Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
    "policy": "string",
    "revisionId": "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. 25)

> The JSON-formatted resource-based policy attached to the ProfilingGroup.
>
> Type: String

revisionId (p. 25)

> A unique identifier for the current revision of the returned policy.
>
> Type: String

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

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GetProfile

Gets the aggregated profile of a profiling group for a specified time range. Amazon CodeGuru Profiler collects posted agent profiles for a profiling group into aggregated profiles.

> **Note**
> Because aggregated profiles expire over time `GetProfile` is not idempotent.

Specify the time range for the requested aggregated profile using 1 or 2 of the following parameters: `startTime`, `endTime`, `period`. The maximum time range allowed is 7 days. If you specify all 3 parameters, an exception is thrown. If you specify only `period`, the latest aggregated profile is returned.

Aggregated profiles are available with aggregation periods of 5 minutes, 1 hour, and 1 day, aligned to UTC. The aggregation period of an aggregated profile determines how long it is retained. For more information, see `AggregatedProfileTime`. The aggregated profile's aggregation period determines how long it is retained by CodeGuru Profiler.

- If the aggregation period is 5 minutes, the aggregated profile is retained for 15 days.
- If the aggregation period is 1 hour, the aggregated profile is retained for 60 days.
- If the aggregation period is 1 day, the aggregated profile is retained for 3 years.

There are two use cases for calling `GetProfile`.

1. If you want to return an aggregated profile that already exists, use `ListProfileTimes` to view the time ranges of existing aggregated profiles. Use them in a `GetProfile` request to return a specific, existing aggregated profile.
2. If you want to return an aggregated profile for a time range that doesn't align with an existing aggregated profile, then CodeGuru Profiler makes a best effort to combine existing aggregated profiles from the requested time range and return them as one aggregated profile.

   If aggregated profiles do not exist for the full time range requested, then aggregated profiles for a smaller time range are returned. For example, if the requested time range is from 00:00 to 00:20, and the existing aggregated profiles are from 00:15 and 00:25, then the aggregated profiles from 00:15 to 00:20 are returned.

Request Syntax

```
GET /profilingGroups/profilingGroupName/profile?
endTime=endTime&maxDepth=maxDepth&period=period&startTime=startTime HTTP/1.1
Accept: accept
```

URI Request Parameters

The request uses the following URI parameters.

accept (p. 27)

   The format of the returned profiling data. The format maps to the `Accept` and `Content-Type` headers of the HTTP request. You can specify one of the following: or the default .
   - `application/json` — standard JSON format
   - `application/x-amzn-ion` — the Amazon Ion data format. For more information, see Amazon Ion.

endTime (p. 27)

The end time of the requested profile. Specify using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

If you specify `endTime`, then you must also specify `period` or `startTime`, but not both.

maxDepth (p. 27)

The maximum depth of the stacks in the code that is represented in the aggregated profile. For example, if CodeGuru Profiler finds a method `A`, which calls method `B`, which calls method `C`, which calls method `D`, then the depth is 4. If the `maxDepth` is set to 2, then the aggregated profile contains representations of methods `A` and `B`.

Valid Range: Minimum value of 1. Maximum value of 10000.

period (p. 27)

Used with `startTime` or `endTime` to specify the time range for the returned aggregated profile. Specify using the ISO 8601 format. For example, `P1DT1H1M1S`.

To get the latest aggregated profile, specify only `period`.

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

profilingGroupName (p. 27)

The name of the profiling group to get.

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

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

Required: Yes

startTime (p. 27)

The start time of the profile to get. Specify using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

If you specify `startTime`, then you must also specify `period` or `endTime`, but not both.

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 200
Content-Encoding: contentEncoding
Content-Type: contentType

profile
```

Response Elements

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

The response returns the following HTTP headers.

contentEncoding (p. 28)

The content encoding of the profile.

contentType (p. 28)

The content type of the profile in the payload. It is either `application/json` or the default `application/x-amzn-ion`.

The response returns the following as the HTTP body.

profile (p. 28)

Information about the profile.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

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

GetRecommendations

Returns a list of `Recommendation` objects that contain recommendations for a profiling group for a given time period. A list of `Anomaly` objects that contains details about anomalies detected in the profiling group for the same time period is also returned.

Request Syntax

```
GET /internal/profilingGroups/profilingGroupName/recommendations?
endTime=endTime&locale=locale&startTime=startTime HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

endTime (p. 30)

The start time of the profile to get analysis data about. You must specify `startTime` and `endTime`. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Required: Yes

locale (p. 30)

The language used to provide analysis. Specify using a string that is one of the following `BCP 47` language codes.

- `de-DE` - German, Germany
- `en-GB` - English, United Kingdom
- `en-US` - English, United States
- `es-ES` - Spanish, Spain
- `fr-FR` - French, France
- `it-IT` - Italian, Italy
- `ja-JP` - Japanese, Japan
- `ko-KR` - Korean, Republic of Korea
- `pt-BR` - Portugese, Brazil
- `zh-CN` - Chinese, China
- `zh-TW` - Chinese, Taiwan

profilingGroupName (p. 30)

The name of the profiling group to get analysis data about.

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

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

Required: Yes

startTime (p. 30)

The end time of the profile to get analysis data about. You must specify `startTime` and `endTime`. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
   "anomalies": [
      {
         "instances": [
            {
               "endTime": number,
               "id": "string",
               "startTime": number,
               "userFeedback": {
                  "type": "string"
               }
            }
         ],
         "metric": {
            "frameName": "string",
            "threadStates": [ "string" ],
            "type": "string"
         },
         "reason": "string"
      }
   ],
   "profileEndTime": number,
   "profileStartTime": number,
   "profilingGroupName": "string",
   "recommendations": [
      {
         "allMatchesCount": number,
         "allMatchesSum": number,
         "endTime": number,
         "pattern": {
            "countersToAggregate": [ "string" ],
            "description": "string",
            "id": "string",
            "name": "string",
            "resolutionSteps": "string",
            "targetFrames": [
               [ "string" ]
            ],
            "thresholdPercent": number
         },
         "startTime": number,
         "topMatches": [
            {
               "frameAddress": "string",
               "targetFramesIndex": number,
               "thresholdBreachValue": 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.

anomalies (p. 31)

The list of anomalies that the analysis has found for this profile.

Type: Array of Anomaly (p. 69) objects

profileEndTime (p. 31)

The end time of the profile the analysis data is about. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Type: Timestamp

profileStartTime (p. 31)

The start time of the profile the analysis data is about. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Type: Timestamp

profilingGroupName (p. 31)

The name of the profiling group the analysis data is about.

Type: String

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

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

recommendations (p. 31)

The list of recommendations that the analysis found for this profile.

Type: Array of Recommendation (p. 85) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

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

ListFindingsReports

List the available reports for a given profiling group and time range.

Request Syntax

```
GET /internal/profilingGroups/profilingGroupName/findingsReports?
dailyReportsOnly=dailyReportsOnly&endTime=endTime&maxResults=maxResults&nextToken=nextToken&startTime=s
 HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

dailyReportsOnly (p. 34)

> A `Boolean` value indicating whether to only return reports from daily profiles. If set to `True`, only
> analysis data from daily profiles is returned. If set to `False`, analysis data is returned from smaller
> time windows (for example, one hour).

endTime (p. 34)

> The end time of the profile to get analysis data about. You must specify `startTime` and `endTime`.
> This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1
> millisecond past June 1, 2020 1:15:02 PM UTC.
>
> Required: Yes

maxResults (p. 34)

> The maximum number of report results returned by `ListFindingsReports` in paginated output.
> When this parameter is used, `ListFindingsReports` only returns `maxResults` results in a single
> page along with a `nextToken` response element. The remaining results of the initial request can be
> seen by sending another `ListFindingsReports` request with the returned `nextToken` value.
>
> Valid Range: Minimum value of 1. Maximum value of 1000.

nextToken (p. 34)

> The `nextToken` value returned from a previous paginated `ListFindingsReportsRequest`
> request where `maxResults` was used and the results exceeded the value of that parameter.
> Pagination continues from the end of the previous results that returned the `nextToken` value.
>
> > **Note**
> > This token should be treated as an opaque identifier that is only used to retrieve the next
> > items in a list and not for other programmatic purposes.
>
> Length Constraints: Minimum length of 1. Maximum length of 64.
>
> Pattern: `^[\w-]+$`

profilingGroupName (p. 34)

> The name of the profiling group from which to search for analysis data.
>
> Length Constraints: Minimum length of 1. Maximum length of 255.
>
> Pattern: `^[\w-]+$`
>
> Required: Yes

The start time of the profile to get analysis data about. You must specify `startTime` and `endTime`. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
   "findingsReportSummaries": [
      {
         "id": "string",
         "profileEndTime": number,
         "profileStartTime": number,
         "profilingGroupName": "string",
         "totalNumberOfFindings": number
      }
   ],
   "nextToken": "string"
}
```

Response Elements

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

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

The list of analysis results summaries.

Type: Array of FindingsReportSummary (p. 72) objects

The `nextToken` value to include in a future `ListFindingsReports` request. When the results of a `ListFindingsReports` request exceed `maxResults`, this value can be used to retrieve the next page of results. This value is `null` when there are no more results to return.

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. 91).

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

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

ListProfileTimes

Lists the start times of the available aggregated profiles of a profiling group for an aggregation period within the specified time range.

Request Syntax

```
GET /profilingGroups/profilingGroupName/profileTimes?
endTime=endTime&maxResults=maxResults&nextToken=nextToken&orderBy=orderBy&period=period&startTime=start
 HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

endTime (p. 37)

The end time of the time range from which to list the profiles.

Required: Yes

maxResults (p. 37)

The maximum number of profile time results returned by `ListProfileTimes` in paginated output. When this parameter is used, `ListProfileTimes` only returns `maxResults` results in a single page with a `nextToken` response element. The remaining results of the initial request can be seen by sending another `ListProfileTimes` request with the returned `nextToken` value.

Valid Range: Minimum value of 1. Maximum value of 1000.

nextToken (p. 37)

The `nextToken` value returned from a previous paginated `ListProfileTimes` request where `maxResults` was used and the results exceeded the value of that parameter. Pagination continues from the end of the previous results that returned the `nextToken` value.

> **Note**
> This token should be treated as an opaque identifier that is only used to retrieve the next items in a list and not for other programmatic purposes.

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

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

orderBy (p. 37)

The order (ascending or descending by start time of the profile) to use when listing profiles. Defaults to `TIMESTAMP_DESCENDING`.

Valid Values: `TimestampDescending | TimestampAscending`

period (p. 37)

The aggregation period. This specifies the period during which an aggregation profile collects posted agent profiles for a profiling group. There are 3 valid values.

- `P1D` — 1 day
- `PT1H` — 1 hour
- `PT5M` — 5 minutes

Valid Values: `PT5M | PT1H | P1D`

Required: Yes

profilingGroupName (p. 37)

The name of the profiling group.

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

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

Required: Yes

startTime (p. 37)

The start time of the time range from which to list the profiles.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
    "nextToken": "string",
    "profileTimes": [
        {
            "start": number
        }
    ]
}
```

Response Elements

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

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

nextToken (p. 38)

The `nextToken` value to include in a future `ListProfileTimes` request. When the results of a `ListProfileTimes` request exceed `maxResults`, this value can be used to retrieve the next page of results. This value is `null` when there are no more results to return.

Type: String

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

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

profileTimes (p. 38)

The list of start times of the available profiles for the aggregation period in the specified time range.

Type: Array of ProfileTime (p. 81) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

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

ListProfilingGroups

Returns a list of profiling groups. The profiling groups are returned as `ProfilingGroupDescription` objects.

Request Syntax

```
GET /profilingGroups?
includeDescription=includeDescription&maxResults=maxResults&nextToken=nextToken HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

includeDescription (p. 40)

A `Boolean` value indicating whether to include a description. If `true`, then a list of `ProfilingGroupDescription` objects that contain detailed information about profiling groups is returned. If `false`, then a list of profiling group names is returned.

maxResults (p. 40)

The maximum number of profiling groups results returned by `ListProfilingGroups` in paginated output. When this parameter is used, `ListProfilingGroups` only returns `maxResults` results in a single page along with a `nextToken` response element. The remaining results of the initial request can be seen by sending another `ListProfilingGroups` request with the returned `nextToken` value.

Valid Range: Minimum value of 1. Maximum value of 1000.

nextToken (p. 40)

The `nextToken` value returned from a previous paginated `ListProfilingGroups` request where `maxResults` was used and the results exceeded the value of that parameter. Pagination continues from the end of the previous results that returned the `nextToken` value.

> **Note**
> This token should be treated as an opaque identifier that is only used to retrieve the next items in a list and not for other programmatic purposes.

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

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

Request Body

The request does not have a request body.

Response Syntax

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

{
    "nextToken": "string",
```

```
        "profilingGroupNames": [ "string" ],
        "profilingGroups": [
            {
                "agentOrchestrationConfig": {
                    "profilingEnabled": boolean
                },
                "arn": "string",
                "computePlatform": "string",
                "createdAt": number,
                "name": "string",
                "profilingStatus": {
                    "latestAgentOrchestratedAt": number,
                    "latestAgentProfileReportedAt": number,
                    "latestAggregatedProfile": {
                        "period": "string",
                        "start": number
                    }
                },
                "tags": {
                    "string" : "string"
                },
                "updatedAt": number
            }
        ]
}
```

Response Elements

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

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

nextToken (p. 40)

The `nextToken` value to include in a future `ListProfilingGroups` request. When the results of a `ListProfilingGroups` request exceed `maxResults`, this value can be used to retrieve the next page of results. This value is `null` when there are no more results to return.

Type: String

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

Pattern: ^[\w-]+$

profilingGroupNames (p. 40)

A returned list of profiling group names. A list of the names is returned only if `includeDescription` is `false`, otherwise a list of `ProfilingGroupDescription` objects is returned.

Type: Array of strings

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

Pattern: ^[\w-]+$

profilingGroups (p. 40)

A returned list `ProfilingGroupDescription` objects. A list of `ProfilingGroupDescription` objects is returned only if `includeDescription` is `true`, otherwise a list of profiling group names is returned.

Type: Array of ProfilingGroupDescription (p. 82) objects

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

See Also

For more information about using this API in one of the language-specific AWS 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

Returns a list of the tags that are assigned to a specified resource.

Request Syntax

```
GET /tags/resourceArn HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

resourceArn (p. 43)

The Amazon Resource Name (ARN) of the resource that contains the tags to return.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
    "tags": {
        "string" : "string"
    }
}
```

Response Elements

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

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

tags (p. 43)

The list of tags assigned to the specified resource. This is the list of tags returned in the response.

Type: String to string map

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ValidationException

The parameter is not valid.

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

PostAgentProfile

Submits profiling data to an aggregated profile of a profiling group. To get an aggregated profile that is created with this profiling data, use `GetProfile` .

Request Syntax

```
POST /profilingGroups/profilingGroupName/agentProfile?profileToken=profileToken HTTP/1.1
Content-Type: contentType

agentProfile
```

URI Request Parameters

The request uses the following URI parameters.

contentType (p. 45)

> The format of the submitted profiling data. The format maps to the `Accept` and `Content-Type` headers of the HTTP request. You can specify one of the following: or the default .
>
> - `application/json` — standard JSON format
> - `application/x-amzn-ion` — the Amazon Ion data format. For more information, see Amazon Ion.
>
> Required: Yes

profileToken (p. 45)

> Amazon CodeGuru Profiler uses this universally unique identifier (UUID) to prevent the accidental submission of duplicate profiling data if there are failures and retries.
>
> Length Constraints: Minimum length of 1. Maximum length of 64.
>
> Pattern: `^[\w-]+$`

profilingGroupName (p. 45)

> The name of the profiling group with the aggregated profile that receives the submitted profiling data.
>
> Length Constraints: Minimum length of 1. Maximum length of 255.
>
> Pattern: `^[\w-]+$`
>
> Required: Yes

Request Body

The request accepts the following binary data.

agentProfile (p. 45)

> The submitted profiling data.
>
> Required: Yes

Response Syntax

```
HTTP/1.1 204
```

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

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

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

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

PutPermission

Adds permissions to a profiling group's resource-based policy that are provided using an action group. If a profiling group doesn't have a resource-based policy, one is created for it using the permissions in the action group and the roles and users in the `principals` parameter.

The one supported action group that can be added is `agentPermission` which grants `ConfigureAgent` and `PostAgent` permissions. For more information, see Resource-based policies in CodeGuru Profiler in the *Amazon CodeGuru Profiler User Guide*, `ConfigureAgent`, and `PostAgentProfile`.

The first time you call `PutPermission` on a profiling group, do not specify a `revisionId` because it doesn't have a resource-based policy. Subsequent calls must provide a `revisionId` to specify which revision of the resource-based policy to add the permissions to.

The response contains the profiling group's JSON-formatted resource policy.

Request Syntax

```
PUT /profilingGroups/profilingGroupName/policy/actionGroup HTTP/1.1
Content-type: application/json

{
    "principals": [ "string" ],
    "revisionId": "string"
}
```

URI Request Parameters

The request uses the following URI parameters.

actionGroup (p. 47)

Specifies an action group that contains permissions to add to a profiling group resource. One action group is supported, `agentPermissions`, which grants permission to perform actions required by the profiling agent, `ConfigureAgent` and `PostAgentProfile` permissions.

Valid Values: `agentPermissions`

Required: Yes

profilingGroupName (p. 47)

The name of the profiling group to grant access to.

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

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

principals (p. 47)

A list ARNs for the roles and users you want to grant access to the profiling group. Wildcards are not are supported in the ARNs.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 50 items.

Required: Yes

revisionId (p. 47)

A universally unique identifier (UUID) for the revision of the policy you are adding to the profiling group. Do not specify this when you add permissions to a profiling group for the first time. If a policy already exists on the profiling group, you must specify the `revisionId`.

Type: String

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

Response Syntax

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

{
    "policy": "string",
    "revisionId": "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. 48)

The JSON-formatted resource-based policy on the profiling group that includes the added permissions.

Type: String

revisionId (p. 48)

A universally unique identifier (UUID) for the revision of the resource-based policy that includes the added permissions. The JSON-formatted policy is in the `policy` element of the response.

Type: String

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

ConflictException

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

HTTP Status Code: 409

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

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

RemoveNotificationChannel

Remove one anomaly notifications channel for a profiling group.

Request Syntax

```
DELETE /profilingGroups/profilingGroupName/notificationConfiguration/channelId HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

channelId (p. 50)

The id of the channel that we want to stop receiving notifications.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

profilingGroupName (p. 50)

The name of the profiling group we want to change notification configuration for.

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

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

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

{
    "notificationConfiguration": {
        "channels": [
            {
                "eventPublishers": [ "string" ],
                "id": "string",
                "uri": "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.

notificationConfiguration (p. 50)

The new notification configuration for this profiling group.

Type: NotificationConfiguration (p. 78) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

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

RemovePermission

Removes permissions from a profiling group's resource-based policy that are provided using an action group. The one supported action group that can be removed is `agentPermission` which grants `ConfigureAgent` and `PostAgent` permissions. For more information, see Resource-based policies in CodeGuru Profiler in the *Amazon CodeGuru Profiler User Guide*, `ConfigureAgent`, and `PostAgentProfile`.

Request Syntax

```
DELETE /profilingGroups/profilingGroupName/policy/actionGroup?revisionId=revisionId
 HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

actionGroup (p. 52)

Specifies an action group that contains the permissions to remove from a profiling group's resource-based policy. One action group is supported, `agentPermissions`, which grants `ConfigureAgent` and `PostAgentProfile` permissions.

Valid Values: `agentPermissions`

Required: Yes

profilingGroupName (p. 52)

The name of the profiling group.

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

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

Required: Yes

revisionId (p. 52)

A universally unique identifier (UUID) for the revision of the resource-based policy from which you want to remove permissions.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

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

```
{
    "policy": "string",
    "revisionId": "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. 52)

The JSON-formatted resource-based policy on the profiling group after the specified permissions were removed.

Type: String

revisionId (p. 52)

A universally unique identifier (UUID) for the revision of the resource-based policy after the specified permissions were removed. The updated JSON-formatted policy is in the `policy` element of the response.

Type: String

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

ConflictException

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

HTTP Status Code: 409

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

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

SubmitFeedback

Sends feedback to CodeGuru Profiler about whether the anomaly detected by the analysis is useful or not.

Request Syntax

```
POST /internal/profilingGroups/profilingGroupName/anomalies/anomalyInstanceId/feedback
 HTTP/1.1
Content-type: application/json

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

URI Request Parameters

The request uses the following URI parameters.

anomalyInstanceId (p. 55)

The universally unique identifier (UUID) of the `AnomalyInstance` object that is included in the analysis data.

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: Yes

profilingGroupName (p. 55)

The name of the profiling group that is associated with the analysis data.

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

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

comment (p. 55)

Optional feedback about this anomaly.

Type: String

Required: No

type (p. 55)

The feedback tpye. Thee are two valid values, `Positive` and `Negative`.

Type: String

Valid Values: `Positive | Negative`

Required: Yes

Response Syntax

```
HTTP/1.1 204
```

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

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

TagResource

Use to assign one or more tags to a resource.

Request Syntax

```
POST /tags/resourceArn HTTP/1.1
Content-type: application/json

{
    "tags": {
        "string" : "string"
    }
}
```

URI Request Parameters

The request uses the following URI parameters.

resourceArn (p. 57)

> The Amazon Resource Name (ARN) of the resource that the tags are added to.
>
> Required: Yes

Request Body

The request accepts the following data in JSON format.

tags (p. 57)

> The list of tags that are added to the specified resource.
>
> Type: String to string map
>
> Required: Yes

Response Syntax

```
HTTP/1.1 204
```

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

InternalServerException

> The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ValidationException

The parameter is not valid.

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

UntagResource

Use to remove one or more tags from a resource.

Request Syntax

```
DELETE /tags/resourceArn?tagKeys=tagKeys HTTP/1.1
```

URI Request Parameters

The request uses the following URI parameters.

resourceArn (p. 59)

The Amazon Resource Name (ARN) of the resource that contains the tags to remove.

Required: Yes

tagKeys (p. 59)

A list of tag keys. Existing tags of resources with keys in this list are removed from the specified resource.

Required: Yes

Request Body

The request does not have a request body.

Response Syntax

```
HTTP/1.1 204
```

Response Elements

If the action is successful, the service sends back an HTTP 204 response with an empty HTTP body.

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ValidationException

The parameter is not valid.

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

UpdateProfilingGroup

Updates a profiling group.

Request Syntax

```
PUT /profilingGroups/profilingGroupName HTTP/1.1
Content-type: application/json

{
   "agentOrchestrationConfig": {
      "profilingEnabled": boolean
   }
}
```

URI Request Parameters

The request uses the following URI parameters.

profilingGroupName (p. 61)

The name of the profiling group to update.

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

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

Required: Yes

Request Body

The request accepts the following data in JSON format.

agentOrchestrationConfig (p. 61)

Specifies whether profiling is enabled or disabled for a profiling group.

Type: AgentOrchestrationConfig (p. 67) object

Required: Yes

Response Syntax

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

{
   "profilingGroup": {
      "agentOrchestrationConfig": {
         "profilingEnabled": boolean
      },
      "arn": "string",
      "computePlatform": "string",
      "createdAt": number,
      "name": "string",
```

```
      "profilingStatus": {
         "latestAgentOrchestratedAt": number,
         "latestAgentProfileReportedAt": number,
         "latestAggregatedProfile": {
            "period": "string",
            "start": number
         }
      },
      "tags": {
         "string" : "string"
      },
      "updatedAt": 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.

profilingGroup (p. 61)

A `ProfilingGroupDescription` that contains information about the returned updated profiling group.

Type: ProfilingGroupDescription (p. 82) object

Errors

For information about the errors that are common to all actions, see Common Errors (p. 91).

ConflictException

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

HTTP Status Code: 409

InternalServerException

The server encountered an internal error and is unable to complete the request.

HTTP Status Code: 500

ResourceNotFoundException

The resource specified in the request does not exist.

HTTP Status Code: 404

ThrottlingException

The request was denied due to request throttling.

HTTP Status Code: 429

ValidationException

The parameter is not valid.

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 Amazon CodeGuru Profiler API contains several data types that various actions use. This section describes each data type in detail.

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

The following data types are supported:

AgentConfiguration

The response of `ConfigureAgent` that specifies if an agent profiles or not and for how long to return profiling data.

Contents

agentParameters

Parameters used by the profiler. The valid parameters are:

- `MaxStackDepth` - The maximum depth of the stacks in the code that is represented in the profile. For example, if CodeGuru Profiler finds a method `A`, which calls method `B`, which calls method `C`, which calls method `D`, then the depth is 4. If the `maxDepth` is set to 2, then the profiler evaluates `A` and `B`.
- `MemoryUsageLimitPercent` - The percentage of memory that is used by the profiler.
- `MinimumTimeForReportingInMilliseconds` - The minimum time in milliseconds between sending reports.
- `ReportingIntervalInMilliseconds` - The reporting interval in milliseconds used to report profiles.
- `SamplingIntervalInMilliseconds` - The sampling interval in milliseconds that is used to profile samples.

Type: String to string map

Valid Keys: `SamplingIntervalInMilliseconds | ReportingIntervalInMilliseconds | MinimumTimeForReportingInMilliseconds | MemoryUsageLimitPercent | MaxStackDepth`

Required: No

periodInSeconds

How long a profiling agent should send profiling data using `ConfigureAgent`. For example, if this is set to 300, the profiling agent calls `ConfigureAgent` every 5 minutes to submit the profiled data collected during that period.

Type: Integer

Required: Yes

shouldProfile

A `Boolean` that specifies whether the profiling agent collects profiling data or not. Set to `true` to enable profiling.

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

AgentOrchestrationConfig

Specifies whether profiling is enabled or disabled for a profiling group. It is used by `ConfigureAgent` to enable or disable profiling for a profiling group.

Contents

profilingEnabled

A `Boolean` that specifies whether the profiling agent collects profiling data or not. Set to `true` to enable profiling.

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

AggregatedProfileTime

Specifies the aggregation period and aggregation start time for an aggregated profile. An aggregated profile is used to collect posted agent profiles during an aggregation period. There are three possible aggregation periods (1 day, 1 hour, or 5 minutes).

Contents

period

The aggregation period. This indicates the period during which an aggregation profile collects posted agent profiles for a profiling group. Use one of three valid durations that are specified using the ISO 8601 format.

- `P1D` — 1 day
- `PT1H` — 1 hour
- `PT5M` — 5 minutes

Type: String

Valid Values: `PT5M | PT1H | P1D`

Required: No

start

The time that aggregation of posted agent profiles for a profiling group starts. The aggregation profile contains profiles posted by the agent starting at this time for an aggregation period specified by the `period` property of the `AggregatedProfileTime` object.

Specify `start` using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

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

Anomaly

Details about an anomaly in a specific metric of application profile. The anomaly is detected using analysis of the metric data over a period of time.

Contents

instances

A list of the instances of the detected anomalies during the requested period.

Type: Array of AnomalyInstance (p. 70) objects

Required: Yes

metric

Details about the metric that the analysis used when it detected the anomaly. The metric includes the name of the frame that was analyzed with the type and thread states used to derive the metric value for that frame.

Type: Metric (p. 77) object

Required: Yes

reason

The reason for which metric was flagged as anomalous.

Type: String

Required: Yes

See Also

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

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

AnomalyInstance

The specific duration in which the metric is flagged as anomalous.

Contents

endTime

The end time of the period during which the metric is flagged as anomalous. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Type: Timestamp

Required: No

id

The universally unique identifier (UUID) of an instance of an anomaly in a metric.

Type: String

Required: Yes

startTime

The start time of the period during which the metric is flagged as anomalous. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Type: Timestamp

Required: Yes

userFeedback

Feedback type on a specific instance of anomaly submitted by the user.

Type: UserFeedback (p. 88) 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

Channel

Notification medium for users to get alerted for events that occur in application profile. We support SNS topic as a notification channel.

Contents

eventPublishers

List of publishers for different type of events that may be detected in an application from the profile. Anomaly detection is the only event publisher in Profiler.

Type: Array of strings

Array Members: Fixed number of 1 item.

Valid Values: `AnomalyDetection`

Required: Yes

id

Unique identifier for each `Channel` in the notification configuration of a Profiling Group. A random UUID for channelId is used when adding a channel to the notification configuration if not specified in the request.

Type: String

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

uri

Unique arn of the resource to be used for notifications. We support a valid SNS topic arn as a channel uri.

Type: String

Required: Yes

See Also

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

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

FindingsReportSummary

Information about potential recommendations that might be created from the analysis of profiling data.

Contents

id

The universally unique identifier (UUID) of the recommendation report.

Type: String

Pattern: `[a-f0-9]{8}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{4}-[a-f0-9]{12}`

Required: No

profileEndTime

The end time of the period during which the metric is flagged as anomalous. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Type: Timestamp

Required: No

profileStartTime

The start time of the profile the analysis data is about. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Type: Timestamp

Required: No

profilingGroupName

The name of the profiling group that is associated with the analysis data.

Type: String

Required: No

totalNumberOfFindings

The total number of different recommendations that were found by the analysis.

Type: Integer

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

FrameMetric

The frame name, metric type, and thread states. These are used to derive the value of the metric for the frame.

Contents

frameName

Name of the method common across the multiple occurrences of a frame in an application profile.

Type: String

Required: Yes

threadStates

List of application runtime thread states used to get the counts for a frame a derive a metric value.

Type: Array of strings

Required: Yes

type

A type of aggregation that specifies how a metric for a frame is analyzed. The supported value `AggregatedRelativeTotalTime` is an aggregation of the metric value for one frame that is calculated across the occurrences of all frames in a profile.

Type: String

Valid Values: `AggregatedRelativeTotalTime`

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

FrameMetricDatum

Information about a frame metric and its values.

Contents

frameMetric

The frame name, metric type, and thread states. These are used to derive the value of the metric for the frame.

Type: FrameMetric (p. 74) object

Required: Yes

values

A list of values that are associated with a frame metric.

Type: Array of doubles

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

Match

The part of a profile that contains a recommendation found during analysis.

Contents

frameAddress

The location in the profiling graph that contains a recommendation found during analysis.

Type: String

Required: No

targetFramesIndex

The target frame that triggered a match.

Type: Integer

Required: No

thresholdBreachValue

The value in the profile data that exceeded the recommendation threshold.

Type: Double

Required: No

See Also

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

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

Metric

Details about the metric that the analysis used when it detected the anomaly. The metric what is analyzed to create recommendations. It includes the name of the frame that was analyzed and the type and thread states used to derive the metric value for that frame.

Contents

frameName

The name of the method that appears as a frame in any stack in a profile.

Type: String

Required: Yes

threadStates

The list of application runtime thread states that is used to calculate the metric value for the frame.

Type: Array of strings

Required: Yes

type

A type that specifies how a metric for a frame is analyzed. The supported value `AggregatedRelativeTotalTime` is an aggregation of the metric value for one frame that is calculated across the occurences of all frames in a profile.

Type: String

Valid Values: `AggregatedRelativeTotalTime`

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

NotificationConfiguration

The configuration for notifications stored for each profiling group. This includes up to to two channels and a list of event publishers associated with each channel.

Contents

channels

List of up to two channels to be used for sending notifications for events detected from the application profile.

Type: Array of Channel (p. 71) objects

Array Members: Minimum number of 1 item. Maximum number of 2 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

Pattern

A set of rules used to make a recommendation during an analysis.

Contents

countersToAggregate

A list of the different counters used to determine if there is a match.

Type: Array of strings

Required: No

description

The description of the recommendation. This explains a potential inefficiency in a profiled application.

Type: String

Required: No

id

The universally unique identifier (UUID) of this pattern.

Type: String

Required: No

name

The name for this pattern.

Type: String

Required: No

resolutionSteps

A string that contains the steps recommended to address the potential inefficiency.

Type: String

Required: No

targetFrames

A list of frame names that were searched during the analysis that generated a recommendation.

Type: Array of arrays of strings

Required: No

thresholdPercent

The percentage of time an application spends in one method that triggers a recommendation. The percentage of time is the same as the percentage of the total gathered sample counts during analysis.

Type: Double

Valid Range: Minimum value of 0. Maximum value of 100.

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

ProfileTime

Contains the start time of a profile.

Contents

start

The start time of a profile. It is specified using the ISO 8601 format. For example,
2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

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

ProfilingGroupDescription

Contains information about a profiling group.

Contents

agentOrchestrationConfig

An `AgentOrchestrationConfig` object that indicates if the profiling group is enabled for profiled or not.

Type: AgentOrchestrationConfig (p. 67) object

Required: No

arn

The Amazon Resource Name (ARN) identifying the profiling group resource.

Type: String

Required: No

computePlatform

The compute platform of the profiling group. If it is set to `AWSLambda`, then the profiled application runs on AWS Lambda. If it is set to `Default`, then the profiled application runs on a compute platform that is not AWS Lambda, such an Amazon EC2 instance, an on-premises server, or a different platform. The default is `Default`.

Type: String

Valid Values: `Default | AWSLambda`

Required: No

createdAt

The time when the profiling group was created. Specify using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Type: Timestamp

Required: No

name

The name of the profiling group.

Type: String

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

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

Required: No

profilingStatus

A `ProfilingStatus` object that includes information about the last time a profile agent pinged back, the last time a profile was received, and the aggregation period and start time for the most recent aggregated profile.

Type: ProfilingStatus (p. 84) object

Required: No

tags

A list of the tags that belong to this profiling group.

Type: String to string map

Required: No

updatedAt

The date and time when the profiling group was last updated. Specify using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

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

ProfilingStatus

Profiling status includes information about the last time a profile agent pinged back, the last time a profile was received, and the aggregation period and start time for the most recent aggregated profile.

Contents

latestAgentOrchestratedAt

The date and time when the profiling agent most recently pinged back. Specify using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Type: Timestamp

Required: No

latestAgentProfileReportedAt

The date and time when the most recent profile was received. Specify using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Type: Timestamp

Required: No

latestAggregatedProfile

An `AggregatedProfileTime` object that contains the aggregation period and start time for an aggregated profile.

Type: AggregatedProfileTime (p. 68) 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

Recommendation

A potential improvement that was found from analyzing the profiling data.

Contents

allMatchesCount

How many different places in the profile graph triggered a match.

Type: Integer

Required: Yes

allMatchesSum

How much of the total sample count is potentially affected.

Type: Double

Required: Yes

endTime

End time of the profile that was used by this analysis. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Type: Timestamp

Required: Yes

pattern

The pattern that analysis recognized in the profile to make this recommendation.

Type: Pattern (p. 79) object

Required: Yes

startTime

The start time of the profile that was used by this analysis. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Type: Timestamp

Required: Yes

topMatches

List of the matches with most impact.

Type: Array of Match (p. 76) 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](#)

TimestampStructure

A data type that contains a `Timestamp` object. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

Contents

value

A `Timestamp`. This is specified using the ISO 8601 format. For example, 2020-06-01T13:15:02.001Z represents 1 millisecond past June 1, 2020 1:15:02 PM UTC.

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

UserFeedback

Feedback that can be submitted for each instance of an anomaly by the user. Feedback is be used for improvements in generating recommendations for the application.

Contents

type

Optional `Positive` or `Negative` feedback submitted by the user about whether the recommendation is useful or not.

Type: String

Valid Values: `Positive | Negative`

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*/*region*/*service*/aws4_request.

For more information, see Task 2: Create a String to Sign for Signature Version 4 in the *Amazon Web Services General Reference*.

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

Type: string

Required: Conditional

X-Amz-Date

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

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is

not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see Handling Dates in Signature Version 4 in the *Amazon Web Services General Reference*.

Type: string

Required: Conditional

X-Amz-Security-Token

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

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

Type: string

Required: Conditional

X-Amz-Signature

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

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

Type: string

Required: Conditional

X-Amz-SignedHeaders

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see Task 1: Create a Canonical Request For Signature Version 4 in the *Amazon Web Services General Reference*.

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

Type: string

Required: Conditional

Common Errors

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

AccessDeniedException

You do not have sufficient access to perform this action.

HTTP Status Code: 400

IncompleteSignature

The request signature does not conform to AWS standards.

HTTP Status Code: 400

InternalFailure

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

HTTP Status Code: 500

InvalidAction

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

HTTP Status Code: 400

InvalidClientTokenId

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

HTTP Status Code: 403

InvalidParameterCombination

Parameters that must not be used together were used together.

HTTP Status Code: 400

InvalidParameterValue

An invalid or out-of-range value was supplied for the input parameter.

HTTP Status Code: 400

InvalidQueryParameter

The AWS query string is malformed or does not adhere to AWS standards.

HTTP Status Code: 400

MalformedQueryString

The query string contains a syntax error.

HTTP Status Code: 404

MissingAction

The request is missing an action or a required parameter.

HTTP Status Code: 400

MissingAuthenticationToken

The request must contain either a valid (registered) AWS access key ID or X.509 certificate.

HTTP Status Code: 403

MissingParameter

A required parameter for the specified action is not supplied.

HTTP Status Code: 400

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

ValidationError

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

HTTP Status Code: 400