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# Amazon CloudWatch Application Insights for .NET and SQL Server

**Welcome**

**API Version 2018-11-25**



## Amazon CloudWatch Application Insights for .NET and SQL Server: Welcome

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# Welcome

Amazon CloudWatch Application Insights for .NET and SQL Server is a service that helps you detect common problems with your .NET and SQL Server-based applications. It enables you to pinpoint the source of issues in your applications (built with technologies such as Microsoft IIS, .NET, and Microsoft SQL Server), by providing key insights into detected problems.

After you onboard your application, CloudWatch Application Insights for .NET and SQL Server identifies, recommends, and sets up metrics and logs. It continuously analyzes and correlates your metrics and logs for unusual behavior to surface actionable problems with your application. For example, if your application is slow and unresponsive and leading to HTTP 500 errors in your Application Load Balancer (ALB), Application Insights informs you that a memory pressure problem with your SQL Server database is occurring. It bases this analysis on impactful metrics and log errors.

This document was last published on October 21, 2019.

# Actions

The following actions are supported:

- [CreateApplication](#) (p. 3)
- [CreateComponent](#) (p. 5)
- [DeleteApplication](#) (p. 7)
- [DeleteComponent](#) (p. 9)
- [DescribeApplication](#) (p. 11)
- [DescribeComponent](#) (p. 13)
- [DescribeComponentConfiguration](#) (p. 15)
- [DescribeComponentConfigurationRecommendation](#) (p. 17)
- [DescribeObservation](#) (p. 19)
- [DescribeProblem](#) (p. 21)
- [DescribeProblemObservations](#) (p. 23)
- [ListApplications](#) (p. 25)
- [ListComponents](#) (p. 27)
- [ListProblems](#) (p. 30)
- [UpdateApplication](#) (p. 33)
- [UpdateComponent](#) (p. 35)
- [UpdateComponentConfiguration](#) (p. 37)

# CreateApplication

Adds an application that is created from a resource group.

## Request Syntax

```
{  
  "OpsCenterEnabled": boolean,  
  "OpsItemSNSTopicArn": "string",  
  "ResourceGroupName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 47).

The request accepts the following data in JSON format.

### OpsCenterEnabled (p. 3)

When set to `true`, creates opsitems for any problems detected on an application.

Type: Boolean

Required: No

### OpsItemSNSTopicArn (p. 3)

The SNS topic provided to Application Insights that is associated to the created opsitem. Allows you to receive notifications for updates to the opsitem.

Type: String

Required: No

### ResourceGroupName (p. 3)

The name of the resource group.

Type: String

Required: Yes

## Response Syntax

```
{  
  "ApplicationInfo": {  
    "Lifecycle": "string",  
    "OpsCenterEnabled": boolean,  
    "OpsItemSNSTopicArn": "string",  
    "Remarks": "string",  
    "ResourceGroupName": "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.

### [ApplicationInfo \(p. 3\)](#)

Information about the application.

Type: [ApplicationInfo \(p. 41\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).

### **InternalServerErrorException**

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

HTTP Status Code: 400

### **ResourceInUseException**

The resource is already created or in use.

HTTP Status Code: 400

### **ResourceNotFoundException**

The resource does not exist in the customer account.

HTTP Status Code: 400

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

# CreateComponent

Creates a custom component by grouping similar standalone instances to monitor.

## Request Syntax

```
{  
  "ComponentName": "string",  
  "ResourceGroupName": "string",  
  "ResourceList": [ "string" ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 47\)](#).

The request accepts the following data in JSON format.

### **ComponentName (p. 5)**

The name of the component.

Type: String

Required: Yes

### **ResourceGroupName (p. 5)**

The name of the resource group.

Type: String

Required: Yes

### **ResourceList (p. 5)**

The list of resource ARNs that belong to the component.

Type: Array of strings

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).

### **InternalServerError**

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

HTTP Status Code: 400

**ResourceInUseException**

The resource is already created or in use.

HTTP Status Code: 400

**ResourceNotFoundException**

The resource does not exist in the customer account.

HTTP Status Code: 400

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

# DeleteApplication

Removes the specified application from monitoring. Does not delete the application.

## Request Syntax

```
{  
  "ResourceGroupName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 47\)](#).

The request accepts the following data in JSON format.

### ResourceGroupName (p. 7)

The name of the resource group.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).

### BadRequestException

The request is not understood by the server.

HTTP Status Code: 400

### InternalServerError

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

HTTP Status Code: 400

### ResourceNotFoundException

The resource does not exist in the customer account.

HTTP Status Code: 400

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

# DeleteComponent

Ungroups a custom component. When you ungroup custom components, all applicable monitors that are set up for the component are removed and the instances revert to their standalone status.

## Request Syntax

```
{  
  "ComponentName": "string",  
  "ResourceGroupName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 47\)](#).

The request accepts the following data in JSON format.

### ComponentName (p. 9)

The name of the component.

Type: String

Required: Yes

### ResourceGroupName (p. 9)

The name of the resource group.

Type: String

Required: Yes

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).

### InternalServerErrorException

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

HTTP Status Code: 400

### ResourceNotFoundException

The resource does not exist in the customer account.

HTTP Status Code: 400

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

# DescribeApplication

Describes the application.

## Request Syntax

```
{  
  "ResourceGroupName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 47\)](#).

The request accepts the following data in JSON format.

### ResourceGroupName (p. 11)

The name of the resource group.

Type: String

Required: Yes

## Response Syntax

```
{  
  "ApplicationInfo": {  
    "Lifecycle": "string",  
    "OpsCenterEnabled": boolean,  
    "OpsItemSNSTopicArn": "string",  
    "Remarks": "string",  
    "ResourceGroupName": "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.

### ApplicationInfo (p. 11)

Information about the application.

Type: [ApplicationInfo \(p. 41\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).



#### **InternalServerErrorException**

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

HTTP Status Code: 400

#### **ResourceNotFoundException**

The resource does not exist in the customer account.

HTTP Status Code: 400

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

# DescribeComponent

Describes a component and lists the resources that are grouped together in a component.

## Request Syntax

```
{  
  "ComponentName": "string",  
  "ResourceGroupName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 47).

The request accepts the following data in JSON format.

### ComponentName (p. 13)

The name of the component.

Type: String

Required: Yes

### ResourceGroupName (p. 13)

The name of the resource group.

Type: String

Required: Yes

## Response Syntax

```
{  
  "ApplicationComponent": {  
    "ComponentName": "string",  
    "Monitor": boolean,  
    "ResourceType": "string",  
    "Tier": "string"  
  },  
  "ResourceList": [ "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.

### ApplicationComponent (p. 13)

Describes a standalone resource or similarly grouped resources that the application is made up of.

Type: [ApplicationComponent \(p. 40\)](#) object

**ResourceList (p. 13)**

The list of resource ARNs that belong to the component.

Type: Array of strings

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).

**InternalServerErrorException**

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

HTTP Status Code: 400

**ResourceNotFoundException**

The resource does not exist in the customer account.

HTTP Status Code: 400

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

# DescribeComponentConfiguration

Describes the monitoring configuration of the component.

## Request Syntax

```
{  
  "ComponentName": "string",  
  "ResourceGroupName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 47).

The request accepts the following data in JSON format.

### ComponentName (p. 15)

The name of the component.

Type: String

Required: Yes

### ResourceGroupName (p. 15)

The name of the resource group.

Type: String

Required: Yes

## Response Syntax

```
{  
  "ComponentConfiguration": "string",  
  "Monitor": boolean,  
  "Tier": "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.

### ComponentConfiguration (p. 15)

The configuration settings of the component. The value is the escaped JSON of the configuration.

Type: String

### Monitor (p. 15)

Indicates whether the application component is monitored.

Type: Boolean

### [Tier \(p. 15\)](#)

The tier of the application component. Supported tiers include `DOT_NET_WORKER`, `DOT_NET_WEB`, `SQL_SERVER`, and `DEFAULT`

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).

### **InternalServerErrorException**

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

HTTP Status Code: 400

### **ResourceNotFoundException**

The resource does not exist in the customer account.

HTTP Status Code: 400

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

# DescribeComponentConfigurationRecommendation

Describes the recommended monitoring configuration of the component.

## Request Syntax

```
{  
  "ComponentName": "string",  
  "ResourceGroupName": "string",  
  "Tier": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 47).

The request accepts the following data in JSON format.

### **ComponentName** (p. 17)

The name of the component.

Type: String

Required: Yes

### **ResourceGroupName** (p. 17)

The name of the resource group.

Type: String

Required: Yes

### **Tier** (p. 17)

The tier of the application component. Supported tiers include DOT\_NET\_WORKER, DOT\_NET\_WEB, SQL\_SERVER, and DEFAULT.

Type: String

Required: Yes

## Response Syntax

```
{  
  "ComponentConfiguration": "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.

### **ComponentConfiguration** (p. 17)

The recommended configuration settings of the component. The value is the escaped JSON of the configuration.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors](#) (p. 49).

### **InternalServerError**

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

HTTP Status Code: 400

### **ResourceNotFoundException**

The resource does not exist in the customer account.

HTTP Status Code: 400

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

# DescribeObservation

Describes an anomaly or error with the application.

## Request Syntax

```
{  
  "ObservationId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 47\)](#).

The request accepts the following data in JSON format.

### ObservationId (p. 19)

The ID of the observation.

Type: String

Required: Yes

## Response Syntax

```
{  
  "Observation": {  
    "EndTime": number,  
    "Id": "string",  
    "LineTime": number,  
    "LogFilter": "string",  
    "LogGroup": "string",  
    "LogText": "string",  
    "MetricName": "string",  
    "MetricNamespace": "string",  
    "SourceARN": "string",  
    "SourceType": "string",  
    "StartTime": number,  
    "Unit": "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.

### Observation (p. 19)

Information about the observation.



Type: [Observation \(p. 42\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).

### **InternalServerErrorException**

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

HTTP Status Code: 400

### **ResourceNotFoundException**

The resource does not exist in the customer account.

HTTP Status Code: 400

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

# DescribeProblem

Describes an application problem.

## Request Syntax

```
{  
  "ProblemId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 47\)](#).

The request accepts the following data in JSON format.

### ProblemId (p. 21)

The ID of the problem.

Type: String

Required: Yes

## Response Syntax

```
{  
  "Problem": {  
    "AffectedResource": "string",  
    "EndTime": number,  
    "Feedback": {  
      "string": "string"  
    },  
    "Id": "string",  
    "Insights": "string",  
    "ResourceGroupName": "string",  
    "SeverityLevel": "string",  
    "StartTime": number,  
    "Status": "string",  
    "Title": "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.

### Problem (p. 21)

Information about the problem.

Type: [Problem \(p. 44\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).

### **InternalServerErrorException**

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

HTTP Status Code: 400

### **ResourceNotFoundException**

The resource does not exist in the customer account.

HTTP Status Code: 400

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

# DescribeProblemObservations

Describes the anomalies or errors associated with the problem.

## Request Syntax

```
{  
  "ProblemId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 47\)](#).

The request accepts the following data in JSON format.

### ProblemId (p. 23)

The ID of the problem.

Type: String

Required: Yes

## Response Syntax

```
{  
  "RelatedObservations": {  
    "ObservationList": [  
      {  
        "EndTime": number,  
        "Id": "string",  
        "LineTime": number,  
        "LogFilter": "string",  
        "LogGroup": "string",  
        "LogText": "string",  
        "MetricName": "string",  
        "MetricNamespace": "string",  
        "SourceARN": "string",  
        "SourceType": "string",  
        "StartTime": number,  
        "Unit": "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.

### [RelatedObservations \(p. 23\)](#)

Observations related to the problem.

Type: [RelatedObservations \(p. 46\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).

### **InternalServerErrorException**

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

HTTP Status Code: 400

### **ResourceNotFoundException**

The resource does not exist in the customer account.

HTTP Status Code: 400

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

# ListApplications

Lists the IDs of the applications that you are monitoring.

## Request Syntax

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

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 47\)](#).

The request accepts the following data in JSON format.

### MaxResults (p. 25)

The maximum number of results to return in a single call. To retrieve the remaining results, make another call with the returned `NextToken` value.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 40.

Required: No

### NextToken (p. 25)

The token to request the next page of results.

Type: String

Required: No

## Response Syntax

```
{  
  "ApplicationInfoList": [  
    {  
      "Lifecycle": "string",  
      "OpsCenterEnabled": boolean,  
      "OpsItemSNSTopicArn": "string",  
      "Remarks": "string",  
      "ResourceGroupName": "string"  
    }  
  ],  
  "NextToken": "string"  
}
```

## Response Elements

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

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

#### **ApplicationInfoList (p. 25)**

The list of applications.

Type: Array of [ApplicationInfo \(p. 41\)](#) objects

#### **NextToken (p. 25)**

The token used to retrieve the next page of results. This value is `null` when there are no more results to return.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).

#### **InternalServerErrorException**

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

HTTP Status Code: 400

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

# ListComponents

Lists the auto-grouped, standalone, and custom components of the application.

## Request Syntax

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

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#) (p. 47).

The request accepts the following data in JSON format.

### MaxResults (p. 27)

The maximum number of results to return in a single call. To retrieve the remaining results, make another call with the returned `NextToken` value.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 40.

Required: No

### NextToken (p. 27)

The token to request the next page of results.

Type: String

Required: No

### ResourceGroupName (p. 27)

The name of the resource group.

Type: String

Required: Yes

## Response Syntax

```
{  
  "ApplicationComponentList": [  
    {  
      "ComponentName": "string",  
      "Monitor": boolean,  
      "ResourceType": "string",  
      "Tier": "string"  
    }  
  ],  
}
```



```
"NextToken": "string"  
}
```

## Response Elements

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

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

### **ApplicationComponentList (p. 27)**

The list of application components.

Type: Array of [ApplicationComponent \(p. 40\)](#) objects

### **NextToken (p. 27)**

The token to request the next page of results.

Type: String

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).

### **InternalServerErrorException**

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

HTTP Status Code: 400

### **ResourceNotFoundException**

The resource does not exist in the customer account.

HTTP Status Code: 400

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



# ListProblems

Lists the problems with your application.

## Request Syntax

```
{  
  "EndTime": number,  
  "MaxResults": number,  
  "NextToken": "string",  
  "ResourceGroupName": "string",  
  "StartTime": number  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 47\)](#).

The request accepts the following data in JSON format.

### EndTime (p. 30)

The time when the problem ended, in epoch seconds. If not specified, problems within the past seven days are returned.

Type: Timestamp

Required: No

### MaxResults (p. 30)

The maximum number of results to return in a single call. To retrieve the remaining results, make another call with the returned `NextToken` value.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 40.

Required: No

### NextToken (p. 30)

The token to request the next page of results.

Type: String

Required: No

### ResourceGroupName (p. 30)

The name of the resource group.

Type: String

Required: No

### StartTime (p. 30)

The time when the problem was detected, in epoch seconds. If you don't specify a time frame for the request, problems within the past seven days are returned.

Type: Timestamp

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "ProblemList": [
    {
      "AffectedResource": "string",
      "EndTime": number,
      "Feedback": {
        "string": "string"
      },
      "Id": "string",
      "Insights": "string",
      "ResourceGroupName": "string",
      "SeverityLevel": "string",
      "StartTime": number,
      "Status": "string",
      "Title": "string"
    }
  ]
}
```

## Response Elements

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

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

### NextToken (p. 31)

The token used to retrieve the next page of results. This value is `null` when there are no more results to return.

Type: String

### ProblemList (p. 31)

The list of problems.

Type: Array of [Problem \(p. 44\)](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).

### InternalServerError

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

HTTP Status Code: 400

### ResourceNotFoundException

The resource does not exist in the customer account.

HTTP Status Code: 400

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

# UpdateApplication

Updates the application.

## Request Syntax

```
{  
  "OpsCenterEnabled": boolean,  
  "OpsItemSNSTopicArn": "string",  
  "RemoveSNSTopic": boolean,  
  "ResourceGroupName": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 47\)](#).

The request accepts the following data in JSON format.

### OpsCenterEnabled (p. 33)

When set to `true`, creates opsItems for any problems detected on an application.

Type: Boolean

Required: No

### OpsItemSNSTopicArn (p. 33)

The SNS topic provided to Application Insights that is associated to the created opsItem. Allows you to receive notifications for updates to the opsItem.

Type: String

Required: No

### RemoveSNSTopic (p. 33)

Disassociates the SNS topic from the opsItem created for detected problems.

Type: Boolean

Required: No

### ResourceGroupName (p. 33)

The name of the resource group.

Type: String

Required: Yes

## Response Syntax

```
{  
  "ApplicationInfo": {  
    "Lifecycle": "string",  
  }  
}
```

```
"OpsCenterEnabled": boolean,  
"OpsItemSNSTopicArn": "string",  
"Remarks": "string",  
"ResourceGroupName": "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.

### ApplicationInfo (p. 33)

Information about the application.

Type: [ApplicationInfo \(p. 41\)](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).

### InternalServerError

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

HTTP Status Code: 400

### ResourceNotFoundException

The resource does not exist in the customer account.

HTTP Status Code: 400

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

# UpdateComponent

Updates the custom component name and/or the list of resources that make up the component.

## Request Syntax

```
{  
  "ComponentName": "string",  
  "NewComponentName": "string",  
  "ResourceGroupName": "string",  
  "ResourceList": [ "string" ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 47\)](#).

The request accepts the following data in JSON format.

### ComponentName (p. 35)

The name of the component.

Type: String

Required: Yes

### NewComponentName (p. 35)

The new name of the component.

Type: String

Required: No

### ResourceGroupName (p. 35)

The name of the resource group.

Type: String

Required: Yes

### ResourceList (p. 35)

The list of resource ARNs that belong to the component.

Type: Array of strings

Required: No

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).



#### **InternalServerErrorException**

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

HTTP Status Code: 400

#### **ResourceInUseException**

The resource is already created or in use.

HTTP Status Code: 400

#### **ResourceNotFoundException**

The resource does not exist in the customer account.

HTTP Status Code: 400

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

# UpdateComponentConfiguration

Updates the monitoring configurations for the component. The configuration input parameter is an escaped JSON of the configuration and should match the schema of what is returned by `DescribeComponentConfigurationRecommendation`.

## Request Syntax

```
{  
  "ComponentConfiguration": "string",  
  "ComponentName": "string",  
  "Monitor": boolean,  
  "ResourceGroupName": "string",  
  "Tier": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters \(p. 47\)](#).

The request accepts the following data in JSON format.

### **ComponentConfiguration (p. 37)**

The configuration settings of the component. The value is the escaped JSON of the configuration. For more information about the JSON format, see [Working with JSON](#). You can send a request to `DescribeComponentConfigurationRecommendation` to see the recommended configuration for a component. For the complete format of the component configuration file, see [Component Configuration](#).

Type: String

Required: No

### **ComponentName (p. 37)**

The name of the component.

Type: String

Required: Yes

### **Monitor (p. 37)**

Indicates whether the application component is monitored.

Type: Boolean

Required: No

### **ResourceGroupName (p. 37)**

The name of the resource group.

Type: String

Required: Yes

### Tier (p. 37)

The tier of the application component. Supported tiers include `DOT_NET_WORKER`, `DOT_NET_WEB`, `SQL_SERVER`, and `DEFAULT`.

Type: String

Required: No

## Response Elements

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

## Errors

For information about the errors that are common to all actions, see [Common Errors \(p. 49\)](#).

### **InternalServerErrorException**

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

HTTP Status Code: 400

### **ResourceNotFoundException**

The resource does not exist in the customer account.

HTTP Status Code: 400

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

# Data Types

The Amazon CloudWatch Application Insights 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:

- [ApplicationComponent](#) (p. 40)
- [ApplicationInfo](#) (p. 41)
- [Observation](#) (p. 42)
- [Problem](#) (p. 44)
- [RelatedObservations](#) (p. 46)

# ApplicationComponent

Describes a standalone resource or similarly grouped resources that the application is made up of.

## Contents

### ComponentName

The name of the component.

Type: String

Required: No

### Monitor

Indicates whether the application component is monitored.

Type: Boolean

Required: No

### ResourceType

The resource type. Supported resource types include EC2 instances, Auto Scaling group, Classic ELB, Application ELB, and SQS Queue.

Type: String

Required: No

### Tier

The stack tier of the application component.

Type: String

Required: No

## See Also

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

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

# ApplicationInfo

Describes the status of the application.

## Contents

### LifeCycle

The lifecycle of the application.

Type: String

Required: No

### OpsCenterEnabled

Indicates whether Application Insights will create opsItems for any problem detected by Application Insights for an application.

Type: Boolean

Required: No

### OpsItemSNSTopicArn

The SNS topic provided to Application Insights that is associated to the created opsItems to receive SNS notifications for opsItem updates.

Type: String

Required: No

### Remarks

The issues on the user side that block Application Insights from successfully monitoring an application.

Type: String

Required: No

### ResourceGroupName

The name of the resource group used for the application.

Type: String

Required: No

## See Also

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

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

# Observation

Describes an anomaly or error with the application.

## Contents

### **EndTime**

The time when the observation ended, in epoch seconds.

Type: Timestamp

Required: No

### **Id**

The ID of the observation type.

Type: String

Required: No

### **LineTime**

The timestamp in the CloudWatch Logs that specifies when the matched line occurred.

Type: Timestamp

Required: No

### **LogFilter**

The log filter of the observation.

Type: String

Valid Values: `ERROR` | `WARN` | `INFO`

Required: No

### **LogGroup**

The log group name.

Type: String

Required: No

### **LogText**

The log text of the observation.

Type: String

Required: No

### **MetricName**

The name of the observation metric.

Type: String

Required: No

**MetricNamespace**

The namespace of the observation metric.

Type: String

Required: No

**SourceARN**

The source resource ARN of the observation.

Type: String

Required: No

**SourceType**

The source type of the observation.

Type: String

Required: No

**StartTime**

The time when the observation was first detected, in epoch seconds.

Type: Timestamp

Required: No

**Unit**

The unit of the source observation metric.

Type: String

Required: No

**Value**

The value of the source observation metric.

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](#)
- [AWS SDK for Ruby V2](#)



# Problem

Describes a problem that is detected by correlating observations.

## Contents

### **AffectedResource**

The resource affected by the problem.

Type: String

Required: No

### **EndTime**

The time when the problem ended, in epoch seconds.

Type: Timestamp

Required: No

### **Feedback**

Feedback provided by the user about the problem.

Type: String to string map

Valid Keys: `INSIGHTS_FEEDBACK`

Valid Values: `NOT_SPECIFIED` | `USEFUL` | `NOT_USEFUL`

Required: No

### **Id**

The ID of the problem.

Type: String

Required: No

### **Insights**

A detailed analysis of the problem using machine learning.

Type: String

Required: No

### **ResourceGroupName**

The name of the resource group affected by the problem.

Type: String

Required: No

### **SeverityLevel**

A measure of the level of impact of the problem.

Type: String

Valid Values: `Low` | `Medium` | `High`

Required: No

**StartTime**

The time when the problem started, in epoch seconds.

Type: `Timestamp`

Required: No

**Status**

The status of the problem.

Type: `String`

Valid Values: `IGNORE` | `RESOLVED` | `PENDING`

Required: No

**Title**

The name of the problem.

Type: `String`

Required: No

## See Also

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

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

## RelatedObservations

Describes observations related to the problem.

### Contents

#### **ObservationList**

The list of observations related to the problem.

Type: Array of [Observation \(p. 42\)](#) objects

Required: No

### See Also

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

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

# 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'THHMMSS'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

**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