

ALIBABA CLOUD

Alibaba Cloud

**ActionTrail
API Reference**

Document Version: 20200918

 **Alibaba Cloud**

Legal disclaimer

Alibaba Cloud reminds you to carefully read and fully understand the terms and conditions of this legal disclaimer before you read or use this document. If you have read or used this document, it shall be deemed as your total acceptance of this legal disclaimer.

1. You shall download and obtain this document from the Alibaba Cloud website or other Alibaba Cloud-authorized channels, and use this document for your own legal business activities only. The content of this document is considered confidential information of Alibaba Cloud. You shall strictly abide by the confidentiality obligations. No part of this document shall be disclosed or provided to any third party for use without the prior written consent of Alibaba Cloud.
2. No part of this document shall be excerpted, translated, reproduced, transmitted, or disseminated by any organization, company or individual in any form or by any means without the prior written consent of Alibaba Cloud.
3. The content of this document may be changed because of product version upgrade, adjustment, or other reasons. Alibaba Cloud reserves the right to modify the content of this document without notice and an updated version of this document will be released through Alibaba Cloud-authorized channels from time to time. You should pay attention to the version changes of this document as they occur and download and obtain the most up-to-date version of this document from Alibaba Cloud-authorized channels.
4. This document serves only as a reference guide for your use of Alibaba Cloud products and services. Alibaba Cloud provides this document based on the "status quo", "being defective", and "existing functions" of its products and services. Alibaba Cloud makes every effort to provide relevant operational guidance based on existing technologies. However, Alibaba Cloud hereby makes a clear statement that it in no way guarantees the accuracy, integrity, applicability, and reliability of the content of this document, either explicitly or implicitly. Alibaba Cloud shall not take legal responsibility for any errors or lost profits incurred by any organization, company, or individual arising from download, use, or trust in this document. Alibaba Cloud shall not, under any circumstances, take responsibility for any indirect, consequential, punitive, contingent, special, or punitive damages, including lost profits arising from the use or trust in this document (even if Alibaba Cloud has been notified of the possibility of such a loss).
5. By law, all the contents in Alibaba Cloud documents, including but not limited to pictures, architecture design, page layout, and text description, are intellectual property of Alibaba Cloud and/or its affiliates. This intellectual property includes, but is not limited to, trademark rights, patent rights, copyrights, and trade secrets. No part of this document shall be used, modified, reproduced, publicly transmitted, changed, disseminated, distributed, or published without the prior written consent of Alibaba Cloud and/or its affiliates. The names owned by Alibaba Cloud shall not be used, published, or reproduced for marketing, advertising, promotion, or other purposes without the prior written consent of Alibaba Cloud. The names owned by Alibaba Cloud include, but are not limited to, "Alibaba Cloud", "Aliyun", "HiChina", and other brands of Alibaba Cloud and/or its affiliates, which appear separately or in combination, as well as the auxiliary signs and patterns of the preceding brands, or anything similar to the company names, trade names, trademarks, product or service names, domain names, patterns, logos, marks, signs, or special descriptions that third parties identify as Alibaba Cloud and/or its affiliates.
6. Please directly contact Alibaba Cloud for any errors of this document.

Document conventions

Style	Description	Example
 Danger	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 Danger: Resetting will result in the loss of user configuration data.
 Warning	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 Warning: Restarting will cause business interruption. About 10 minutes are required to restart an instance.
 Notice	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: If the weight is set to 0, the server no longer receives new requests.
 Note	A note indicates supplemental instructions, best practices, tips, and other content.	 Note: You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click Settings> Network> Set network type .
Bold	Bold formatting is used for buttons, menus, page names, and other UI elements.	Click OK .
Courier font	Courier font is used for commands	Run the <code>cd /d C:/window</code> command to enter the Windows system folder.
<i>Italic</i>	Italic formatting is used for parameters and variables.	<code>bae log list --instanceid</code> <i>Instance_ID</i>
[] or [a b]	This format is used for an optional value, where only one item can be selected.	<code>ipconfig [-all -t]</code>
{ } or {a b}	This format is used for a required value, where only one item can be selected.	<code>switch {active stand}</code>

Table of Contents

1. List of operations by function	05
2. RAM account authentication	06
3. Calling method	07
3.1. Request method	07
3.2. Request syntax	07
3.3. Common parameters	07
3.4. Responses	09
3.5. Request signatures	11
4. Trail management	16
4.1. CreateTrail	16
4.2. DescribeTrails	21
4.3. GetTrailStatus	25
4.4. StartLogging	27
4.5. StopLogging	29
4.6. UpdateTrail	30
4.7. DeleteTrail	36
5. Query	38
5.1. DescribeRegions	38
5.2. LookupEvents	39

1. List of operations by function

The following tables list API operations available for use in ActionTrail.

Trail management

API	Description
CreateTrail	Creates a trail.
DescribeTrails	Queries trails applied to a region.
GetTrailStatus	Queries the status of a trail.
StartLogging	Enables logging for a trail.
StopLogging	Disables logging for a trail.
UpdateTrail	Updates the configuration of a trail.
DeleteTrail	Deletes a trail.

Query

API	Description
DescribeRegions	Queries the available Alibaba Cloud regions.
LookupEvents	Queries events.

2.RAM account authentication

This section describes the ActionTrail APIs that can be authorized to a RAM account.

Before an API is called, permissions are checked to ensure that the caller is authorized to call the API to operate specific resources.

The following table describes the API authentication rules.

Action	Resource description
actiontrail:CreateTrail	<code>acs:actiontrail:\${region}:\${AccountId}:*</code>
actiontrail:DescribeTrails	<code>acs:actiontrail:\${region}:\${AccountId}:*</code>
actiontrail:GetTrailStatus	<code>acs:actiontrail:\${region}:\${AccountId}:*</code>
actiontrail:StartLogging	<code>acs:actiontrail:\${region}:\${AccountId}:*</code>
actiontrail:StopLogging	<code>acs:actiontrail:\${region}:\${AccountId}:*</code>
actiontrail:UpdateTrail	<code>acs:actiontrail:\${region}:\${AccountId}:*</code>
actiontrail>DeleteTrail	<code>acs:actiontrail:\${region}:\${AccountId}:*</code>
actiontrail:LookupEvents	<code>acs:actiontrail:\${region}:\${AccountId}:*</code>

3. Calling method

3.1. Request method

To send an ActionTrail API request, you must send an HTTP or HTTPS GET request to the ActionTrail endpoint. You must add the request parameters that correspond to the API operation being called. After you call the API, the system returns a response. The request and response are encoded in UTF-8.

For more information about how to send an API request, see the following topics:

1. [Request syntax](#)
2. [Common parameters](#)
3. [Responses](#)
4. [Request signatures](#)

3.2. Request syntax

This topic describes the request syntax in ActionTrail, including the endpoints of ActionTrail, communications protocol, HTTP request method, and request parameters.

The endpoint of the ActionTrail console is `actiontrail.console.aliyun.com`.

The endpoint of the ActionTrail API is `actiontrail.[Region].aliyuncs.com`. `[Region]` specifies the region to which a trail is applied. Valid value: `cn-hangzhou`.

Communications protocol

You can call ActionTrail API operations by sending HTTP or HTTPS requests. We recommend that you send HTTPS requests for enhanced security.

Request method

The HTTP or HTTPS GET method can be used to send requests. Request parameters must be included in the request URL.

Request parameters

Each request must specify the operation to be performed. For example, to create a trail, you must set the `Action` parameter to `CreateTrail`. Request parameters include both common parameters and operation-specific parameters.

Encoding

All requests and responses are encoded in `UTF-8`.

3.3. Common parameters

This topic describes common parameters, including common request parameters and common response parameters.

Common request parameters

Common request parameters must be included in all ActionTrail API requests.

Parameter	Type	Required	Description
Format	String	No	The format in which to return the response. Set the value to JSON.
Version	String	Yes	The version number of the API, in the YYYY-MM-DD format. Set the value to 2017-12-04 .
AccessKeyId	String	Yes	The AccessKey ID provided to you by Alibaba Cloud for authentication.
Signature	String	Yes	The signature string of the current request. For more information about how signatures are calculated, see Request signatures .
SignatureMethod	String	Yes	The encryption method of the signature string. Set the value to HMAC-SHA1.
Timestamp	String	Yes	The timestamp of the request. Specify the time in the ISO 8601 standard in the YYYY-MM-DDThh:mm:ssZ format. The time must be in UTC. Example: 2014-05-26T12:00:00Z .
SignatureVersion	String	Yes	The version of the signature encryption algorithm. Set the value to 1.0.

Parameter	Type	Required	Description
SignatureNonce	String	Yes	A unique, random number used to prevent replay attacks. You must use different numbers for different requests.

Sample request

```
http://actiontrail.cn-hangzhou.aliyuncs.com/actiontrail
? SignatureVersion=1.0
&OssBucketName=yuanch****
&Name=CreateTest
&Format=JSON
&Timestamp=2015-12-01T07%3A04%3****
&Signature=iyEsE7vgGUWop7Term5HM48wzJ****
&AccessKeyId=QzW2*****C21M
&SignatureMethod=HMAC-SHA1
&Version=2017-12-04
&RoleName=aliyunactiontraildefaultrole
&Action=CreateTrail
&SignatureNonce=c69b30de-97f9-11e5-afb0-7831c1c8****
&OssKeyPrefix=
```

Common response parameters

When you send an API request, the system returns the result if the API operation is successfully called, and returns `RequestId` if the API operation fails to be called. Responses can be returned only in the JSON format.

Sample response

JSON format

```
{
  "Name": "CreateTest",
  "OssBucketName": "yuanch****",
  "OssKeyPrefix": "",
  "RoleName": "aliyunactiontraildefaultrole"
}
```

3.4. Responses

API responses use the HTTP response format where a 2xx status code indicates a successful call and a 4xx or 5xx status code indicates a failed call.

Note

Note:

- Responses can be returned only in the JSON format.
- If you send a request by using third-party tools, you can specify the response format in the request.
- Sample responses in this topic are formatted with line breaks to be reader-friendly.

Sample success responses

JSON format

```
{
  "Name": "CreateTest",
  "OssBucketName": "yuanchuang",
  "OssKeyPrefix": "",
  "RoleName": "aliyunactiontraildefaultrole"
}
```

Sample error responses

If an error occurs when you call an operation, no result data is returned. You can locate the cause of an error based on the corresponding error code and [Common error codes](#).

If an error occurs after a request is sent, the HTTP status code, error code, error message, and unique ID of the request are returned in the response. If you cannot locate the cause of the error based on the error code and error message, provide the ID of the request to an Alibaba Cloud technical support engineer so that the engineer can locate the request log.

JSON format

```
{
  "RequestId": "0BC51021-1740-4C13-8072-4C1CD1D6B1F2",
  "HostId": "actiontrail.cn-hangzhou.aliyuncs.com",
  "Code": "TrailAlreadyExistsException",
  "Message": "account name(CreateTest) and region(cn-hangzhou) is already exist"
}
```

Common error codes

Error code	Description	Status code
InvalidAction	The error message returned because the Action parameter is invalid.	400
InvalidParameterValue	The error message returned because the value of a parameter is invalid.	400
MissingAction	The error message returned because the Action parameter is missing.	400
MissingParameter	The error message returned because a required parameter is missing.	400
InvalidAccessKeyId.Inactive	The error message returned because the AccessKey ID is disabled.	403
NeedRamAuthorize	The error message returned because the Resource Access Management (RAM) user is not authorized to call the API operation.	403
InternalFailure	The error message returned because an unknown internal error has occurred.	500
InternalServerError	The error message returned because an internal server error has occurred.	500
ActionNotImplemented	The error message returned because the specified operation cannot be performed.	501
ServiceUnavailable	The error message returned because the service is unavailable.	503

3.5. Request signatures

You must sign all API requests to ensure security. Alibaba Cloud uses the request signature to verify the identity of the API caller. Therefore, each API request must contain signature information, regardless of whether it is sent by using HTTP or HTTPS.

Overview

You must add the signature to the Resource Management API request in the following format:

```
https://Endpoint/?SignatureVersion=1.0&SignatureMethod=HMAC-SHA1&Signature=CT9X0VtwR86fNW  
SnsC6v8YGOjuE%3D&SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf
```

where:


- **SignatureMethod**: the encryption method of the signature string. Set the value to HMAC-SHA1.
- **SignatureVersion**: the version of the signature encryption algorithm. Set the value to 1.0.
- **SignatureNonce**: a unique, random number used to prevent replay attacks. You must use different numbers for different requests. We recommend that you use universally unique identifiers (UUIDs).
- **Signature**: the signature generated after the request has been symmetrically encrypted by using the **AccessKey** secret.

The signature encryption algorithm complies with RFC 2104 HMAC-SHA1 specifications. The **AccessKey** secret is used to calculate the hash-based message authentication code (HMAC) value of the encoded and sorted query string, and the HMAC value is used as the signature string. Request signatures include operation-specific parameters. Therefore, the signature of a request varies depending on the request parameters. To calculate a signature, follow the steps in this topic.

```
Signature = Base64( HMAC-SHA1( AccessSecret, UTF-8-Encoding-Of(StringToSign)) )
```

Step 1: Compose and encode a string-to-sign

1. Use request parameters to construct a canonicalized query string.
 - i. Create a canonicalized query string by arranging the request parameters (including all common and operation-specific parameters except **Signature**) in alphabetical order.

 **Note** If you use the GET method to submit the request, these parameters are the part located after the question mark (?) and connected by the ampersands (&) in the request uniform resource identifier (URI).

- ii. Encode the canonicalized query string in UTF-8. The following table describes the encoding rules.

Character	Encoding rule
A to Z, a to z, 0 to 9, hyphens (-), underscores (_), periods (.), and tildes (~)	These characters do not need to be encoded.
Other characters	These characters must be percent encoded in <code>%XY</code> format. <code>XY</code> represents the ASCII code of the characters in hexadecimal notation. For example, double quotation marks (") are encoded as <code>%22</code> .
Extended UTF-8 characters	These characters are encoded in <code>%XY%ZA...</code> format.
Spaces	<p>Spaces must be encoded as <code>%20</code>. Do not encode spaces as plus signs (+).</p> <p>This encoding method is different from the <code>application/x-www-form-urlencoded</code> MIME encoding algorithm (such as the <code>java.net.URLEncoder</code> class provided by the Java standard library). However, you can apply the encoding algorithm and then replace the plus sign (+) in the encoded string with <code>%20</code>, the asterisk (*) with <code>%2A</code>, and <code>%7E</code> with the tilde (~). To do this, you can use the following <code>percentEncode</code> method:</p> <pre>private static final String ENCODING = "UTF-8"; private static String percentEncode(String value) throws UnsupportedEncodingException { return value != null ? URLEncoder.encode(value, ENCODING).replace("+", "%20").replace("*", "%2A").replace("%7E", "~") : null; }</pre>

- iii. Connect the encoded parameter names and values by using equal signs (=).
- iv. Sort the connected parameter name and value pairs in the order specified in step i and connect the pairs by using ampersands (&) to obtain the canonicalized query string.
2. Create a string-to-sign from the encoded canonicalized query string as follows:


```
StringToSign=
  HTTPMethod + "&" +
  percentEncode("/") + "&" +
  percentEncode(CanonicalizedQueryString)
```

where:


- **HTTPMethod**: the HTTP method used to make the request, such as GET.
- **percentEncode("/")**: Encode backslashes (/) as %2F according to the URL encoding rule described in step 1.1.
- **percentEncode(CanonicalizedQueryString)** : Encode the canonicalized query string based on the URL encoding rule described in step 1.2.

Step 2: Calculate the signature

1. Calculate the HMAC value of the string-to-sign based on RFC 2104.

 **Note** Use the SHA1 algorithm to calculate the HMAC value of the string-to-sign. The combination of your AccessKey secret and an ampersand (&) (ASCII code 38) that follows the secret is used as the key for the HMAC calculation.

2. Encode the HMAC value in Base64 to obtain the signature string.
3. Add the signature string to the request as the Signature parameter.

 **Note** When the obtained signature value is submitted as the final request parameter value, the value must be URL-encoded like other parameters based on rules defined in [RFC 3986](#).

Signature example

Take a `CreateTrail` API request as an example, where the following sample request URL is to be signed:

```
https://actiontrail.cn-hangzhou.aliyuncs.com/?AccessKeyId=testid&Action=CreateTrail&Format=JSON&Name=test&RegionId=cn-hangzhou&RoleName=AliyunServiceRoleForActionTrail&SignatureMethod=HMAC-SHA1&SignatureNonce=d7730860-e66f-11ea-a3a5-d5f3b52e66a1&SignatureVersion=1.0&Timestamp=2020-08-25T01%3A11%3A01Z&Version=2017-12-04
```

The following string is the `string-to-sign` :

```
POST&%2F&AccessKeyId%3Dtestid%26Action%3DCreateTrail%26Format%3DJSON%26Name%3Dtest%26RegionId%3Dcn-hangzhou%26RoleName%3DAliyunServiceRoleForActionTrail%26SignatureMethod%3DHMAC-SHA1%26SignatureNonce%3Dd7730860-e66f-11ea-a3a5-d5f3b52e66a1%26SignatureVersion%3D1.0%26Timestamp%3D2020-08-25T01%25253A11%25253A01Z%26Version%3D2017-12-04
```

Assume that the AccessKey ID is testid and the AccessKey secret is testsecret. The key that is used to calculate the HMAC value of the string-to-sign is testsecret&.

The calculated signature string is `d15sJSZ0cc+y6a6FHLWxGK/qcUA=` .

In this example, the following signed request URL is generated:

```
https://actiontrail.cn-hangzhou.aliyuncs.com/?Signature=d15sJSZ0cc+y6a6FHLWxGK/qcUA=&AccessKey
yld=testid&Action=CreateTrail&Format=JSON&Name=test&RegionId=cn-hangzhou&RoleName=AliyunSe
rviceRoleForActionTrail&SignatureMethod=HMAC-SHA1&SignatureNonce=d7730860-e66f-11ea-a3a5-d5
f3b52e66a1&SignatureVersion=1.0&Timestamp=2020-08-25T01%3A11%3A01Z&Version=2017-12-04
```

4. Trail management

4.1. CreateTrail


Creates a trail.

You can select an appropriate destination for delivering events as needed, such as a Log Service project or an Object Storage Service (OSS) bucket.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateTrail	The operation that you want to perform. Set the value to CreateTrail.
Name	String	Yes	trail-test	<p>The name of the trail to be created.</p> <p>The name must be 6 to 36 characters in length. It must start with a letter and can contain letters, digits, hyphens (-), and underscores (_).</p> <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 5px; margin-top: 10px;"> <p> Note The name must be unique under the Alibaba Cloud account.</p> </div>
RoleName	String	Yes	aliyunactiontraildefaultrole	The name of the Resource Access Management (RAM) role that ActionTrail is allowed to assume. Default value: aliyunactiontraildefaultrole.

Parameter	Type	Required	Example	Description
OssBucketName	String	No	yuanch****	<p>The name of the OSS bucket to which events are to be delivered.</p> <p>The name must be 3 to 63 characters in length. It must start with a lowercase letter or digit and can contain lowercase letters, digits, and hyphens (-).</p> <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 5px; margin-top: 10px;"> <p> Note Make sure that the bucket exists before you create the trail.</p> </div>
OssKeyPrefix	String	No	at-product-account-audit-B	<p>The prefix of log files to be stored in the OSS bucket. This parameter can be left empty.</p> <p>The prefix must be 6 to 32 characters in length. It must start with a letter and can contain letters, digits, hyphens (-), forward slashes (/), and underscores (_).</p>
SlsProjectArn	String	No	acs:log:cn-shanghai::project/**	The Alibaba Cloud Resource Name (ARN) of the Log Service project to which events are to be delivered.
SlsWriteRoleArn	String	No	acs:ram:***:role/aliyunactiontraildefaultrole	The ARN of the RAM role assumed by ActionTrail for delivering logs to the destination Log Service project.
EventRW	String	No	Write	<p>The read/write type of the events to be delivered. Valid values:</p> <ul style="list-style-type: none"> • Write: write events. It is the default value. • Read: read events. • All: read and write events.

Parameter	Type	Required	Example	Description
TrailRegion	String	No	All	<p>The regions to which the trail is applied. Valid values:</p> <ul style="list-style-type: none"> All: tracks events in all regions. It is the default value. cn-hangzhou: tracks only events that occur in the China (Hangzhou) region. cn-beijing: tracks only events that occur in the China (Beijing) region.
MnsTopicArn	String	No	acs:mns:cn-hangzhou:1111:/topics/your-topic-name	<p>The ARN of the Message Service (MNS) topic to which ActionTrail sends messages. The ARN is in the format of <code>acs:mns:<Region>:<Account ID>/topics/<topicName></code>. If the ARN is specified, a message is generated and delivered to the MNS topic whenever an event is delivered to OSS.</p>

Response parameters

Parameter	Type	Example	Description
Name	String	trail-test	The name of the trail.
EventRW	String	Write	<p>The read/write type of the delivered events. Valid values:</p> <ul style="list-style-type: none"> Write: write events. It is the default value. Read: read events. All: read and write events.
HomeRegion	String	cn-hangzhou	The home region of the trail.
OssBucketName	String	yuanch****	The name of the OSS bucket to which events are delivered.
OssKeyPrefix	String	at-product-account-audit-B	The prefix of log files stored in the OSS bucket. This parameter can be left empty.

Parameter	Type	Example	Description
RoleName	String	aliyunactiontraildefaultrole	The name of the RAM role that ActionTrail is allowed to assume.
SlsWriteRoleArn	String	acs:ram:***:role/aliyunactiontraildefaultrole	The ARN of the RAM role assumed by ActionTrail for delivering logs to the destination Log Service project.
SlsProjectArn	String	acs:log:cn-shanghai::project/***	The ARN of the Log Service project to which events are delivered.
RequestId	String	145318BE-DEE1-4C57-AA7C-5BE7D34A6AE0	The ID of the request.
MnsTopicArn	String	acs:mns:cn-hangzhou:1111:/topics/your-topic-name	The ARN of the MNS topic to which ActionTrail sends messages. The ARN is in the format of <code>acs:mns:<Region>:<Account ID>:/topics/<topicName></code> .
TrailRegion	String	All	The regions to which the trail is applied. Valid values: <ul style="list-style-type: none"> All: tracks events in all regions. It is the default value. cn-hangzhou: tracks only events that occur in the China (Hangzhou) region. cn-beijing: tracks only events that occur in the China (Beijing) region.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=CreateTrail
&Name=trail-test
&RoleName=aliyunactiontraildefaultrole
&<Common request parameters>
```

Sample success responses

XML format

```

<RequestId>04F0F334-1335-436C-A1D7-6C044FE73368</RequestId>
<Name>trail-test</Name>
<HomeRegion>cn-hangzhou</HomeRegion>
<OssBucketName>yuanch****</OssBucketName>
<OssKeyPrefix>at-product-account-audit-B</OssKeyPrefix>
<RoleName>aliyunactiontraildefaultrole</RoleName>
<SlsProjectArn>acs:log:cn-shanghai::project/****</SlsProjectArn>
<SlsWriteRoleArn>acs:ram:***:role/aliyunactiontraildefaultrole</SlsWriteRoleArn>

```

JSON format

```

{
  "RequestId": "04F0F334-1335-436C-A1D7-6C044FE73368",
  "Name": "trail-test",
  "HomeRegion": "cn-hangzhou",
  "OssBucketName": "yuanch****",
  "OssKeyPrefix": "at-product-account-audit-B",
  "RoleName": "aliyunactiontraildefaultrole",
  "SlsProjectArn": "acs:log:cn-shanghai::project/****",
  "SlsWriteRoleArn": "acs:ram:***:role/aliyunactiontraildefaultrole"
}

```

Error codes

HTTP status code	Error code	Error message	Description
404	BucketDoesNotExistException	The specified OSS bucket does not exist.	The error message returned because the specified OSS bucket does not exist.
403	InsufficientBucketPolicyException	Access to the specified OSS bucket was denied.	The error message returned because you are not authorized to access the specified OSS bucket.
403	InsufficientSlsPolicyException	Access to the specified Log Service project was denied.	The error message returned because you are not authorized to access the specified Log Service project.

HTTP status code	Error code	Error message	Description
400	InvalidDeliveryConfigurationException	You must specify at least one Log Service project or OSS bucket for a Trail.	The error message returned because you did not specify a Log Service project or an OSS bucket as the event delivery destination.
400	InvalidPrefixException	The specified OSS bucket prefix is invalid.	The error message returned because the log file prefix specified for the destination OSS bucket is invalid.
400	InvalidQueryParameter	The specified query parameter is invalid.	The error message returned because the specified query parameter is invalid.
400	InvalidTrailNameException	The specified Trail name is invalid.	The error message returned because the specified trail name is invalid. Modify the name based on the correct format.
403	MaximumNumberOfTrailsExceededException	The number of Trails in the same region exceeds the upper limit (5).	The error message returned because you cannot create more than five trails in a region.
400	RepeatOssBucket	The specified OSS bucket is already in use. We recommend that you modify the existing Trail or specify another bucket.	The error message returned because the specified OSS bucket has been used by an existing trail. We recommend that you update the existing trail or specify another OSS bucket.
400	SlsProjectDoesNotExistException	The specified Log Service project does not exist.	The error message returned because the specified Log Service project does not exist.
400	TrailAlreadyExistsException	The specified Trail name already exists.	The error message returned because the specified trail name exists. Modify the name.

For a list of error codes, visit the [API Error Center](#).

4.2. DescribeTrails

Queries detailed information about trails.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeTrails	The operation that you want to perform. Set the value to DescribeTrails.
IncludeShadowTrails	Boolean	No	true	Specifies whether to return the information about shadow trails. Valid values: <ul style="list-style-type: none"> false: Do not return the information about shadow trails. It is the default value. true: Return the information about shadow trails.
NameList	String	No	abc,def	The trails to query. Separate multiple trails with commas (,).

Response parameters

Parameter	Type	Example	Description
TrailList	Array		The information about the trails.
CreateTime	String	1581490216000	The time when the trail was created.
EventRW	String	Write	The read/write type of the delivered events. Valid values: <ul style="list-style-type: none"> Write: write events. It is the default value. Read: read events. All: read and write events.
HomeRegion	String	cn-hangzhou	The home region of the trail.

Parameter	Type	Example	Description
IsOrganizationTrail	Boolean	true	<p>Indicates whether the trail was created as a multi-account trail.</p> <ul style="list-style-type: none"> • false: It is not a multi-account trail. It is the default value. • true: It is a multi-account trail.
MnsTopicArn	String	acs:mns:cn-hangzhou:1111:/topics/your-topic-name	<p>The Alibaba Cloud Resource Name (ARN) of the Message Service (MNS) topic to which ActionTrail sends messages. The ARN is in the format of <code>acs:mns:<Region>:<Account ID>:/topics/<topicName></code>.</p>
Name	String	default	The name of the trail.
OssBucketName	String	secloud	The name of the OSS bucket to which events are delivered.
OssKeyPrefix	String	trail1	The prefix of log files stored in the OSS bucket.
RoleName	String	aliyunactiontraildefaulrole	The name of the Resource Access Management (RAM) role that ActionTrail is allowed to assume.
SlsProjectArn	String	acs:log:cn-shanghai::project/***	The ARN of the Log Service project to which events are delivered.
SlsWriteRoleArn	String	acs:ram::***:role/aliyunactiontraildefaulrole	The ARN of the RAM role assumed by ActionTrail for delivering logs to the destination Log Service project.
StartLoggingTime	String	Wed Dec 02 15:41:06 CST 2015	The most recent date and time when logging was enabled for the trail.
Status	String	Enable	<p>The status of the trail. Valid values:</p> <ul style="list-style-type: none"> • Stopped: The trail is disabled. • Enable: The trail is enabled. • Fresh: The trail is not enabled after creation.

Parameter	Type	Example	Description
StopLoggingTime	String	Wed Dec 03 15:41:06 CST 2015	The most recent date and time when logging was disabled for the trail.
TrailRegion	String	All	The regions to which the trail is applied. Valid values: <ul style="list-style-type: none"> All: tracks events in all regions. It is the default value. cn-hangzhou: tracks only events that occur in the China (Hangzhou) region. cn-beijing: tracks only events that occur in the China (Beijing) region.
UpdateTime	String	1581490242000	The most recent time when the configuration of the trail was updated.
RequestId	String	145318BE-DEE1-4C57-AA7C-5BE7D34A6AE0	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeTrails
&<Common request parameters>
```

Sample success responses

XML format

```
<TrailList>
  <Name>default</Name>
  <OssBucketName>secloud</OssBucketName>
  <OssKeyPrefix>trail1</OssKeyPrefix>
  <RoleName>aliyunactiontraildefaultrole</RoleName>
  <SlsProjectArn>acs:log:cn-shanghai::project/**</SlsProjectArn>
  <SlsWriteRoleArn>acs:ram:***:role/aliyunactiontraildefaultrole</SlsWriteRoleArn>
</TrailList>
<RequestId>145318BE-DEE1-4C57-AA7C-5BE7D34A6AE0</RequestId>
```

JSON format


```
{
  "TrailList": [
    {
      "Name": "default",
      "OssBucketName": "secloud",
      "OssKeyPrefix": "trail1",
      "RoleName": "aliyunactiontraildefaultrole",
      "SlsProjectArn": "acs:log:cn-shanghai::project/**",
      "SlsWriteRoleArn": "acs:ram:***:role/aliyunactiontraildefaultrole"
    }
  ],
  "RequestId": "145318BE-DEE1-4C57-AA7C-5BE7D34A6AE0"
}
```

Error codes

HTTP status code	Error code	Error message	Description
400	InvalidTrailNameException	The specified Trail name is invalid.	The error message returned because the specified trail name is invalid. Modify the name based on the correct format.
400	InvalidQueryParam	The specified query parameter is invalid.	The error message returned because the specified query parameter is invalid.

For a list of error codes, visit the [API Error Center](#).

4.3. GetTrailStatus


You can call this operation to query the status of a trail.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
-----------	------	----------	---------	-------------

Parameter	Type	Required	Example	Description
Action	String	Yes	GetTrailStatus	The operation that you want to perform. Set the value to GetTrailStatus.
Name	String	Yes	trail-test	<p>The name of the trail.</p> <p>The name must be 6 to 36 characters in length. It must start with a letter and can contain letters, digits, hyphens (-), and underscores (_).</p> <div style="border: 1px solid #add8e6; padding: 5px; margin-top: 10px;"> <p> Note The name must be unique under the account.</p> </div>

Response parameters

Parameter	Type	Example	Description
RequestId	String	145318BE-DEE1-4C57-AA7C-5BE7D34A6AE0	The ID of the request.
IsLogging	Boolean	true	Indicates whether logging is enabled for the trail.
LatestDeliveryTime	String	1547792223000	The most recent time when an event was delivered for the trail.
StartLoggingTime	String	Wed Dec 02 15:41:06 CST 2015	The most recent date and time when logging was enabled for the trail.
StopLoggingTime	String	Wed Dec 03 15:41:06 CST 2015	The most recent date and time when logging was disabled for the trail.
LatestDeliveryError	String	write sls failed, exception: the parent of sub user must be project owner, itemscount: 1	The log information for the last failed delivery.

Examples

Sample requests

```
http(s)://[Endpoint]/? Name=trail-test
&<Common request parameters>
```

Sample success responses

XML format

```
<RequestId>BE-DEE1-4C57-AA7C-5BE7D34A6AE0</RequestId>
<IsLogging>>true</IsLogging>
<StartLoggingTime>Wed Dec 02 15:41:06 CST 2015</StartLoggingTime>
```

JSON format

```
{
  "RequestId": "BE-DEE1-4C57-AA7C-5BE7D34A6AE0",
  "IsLogging": true,
  "StartLoggingTime": "Wed Dec 02 15:41:06 CST 2015"
}
```

Error code

For a list of error codes, visit the [API Error Center](#).

4.4. StartLogging


You can call this operation to enable logging for a trail.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	StartLogging	The operation that you want to perform. Set the value to StartLogging.

Parameter	Type	Required	Example	Description
Name	String	No	trail-test	<p>The name of the trail for which you want to enable logging.</p> <p>The name must be 6 to 36 characters in length. It must start with a letter and can contain letters, digits, hyphens (-), and underscores (_).</p> <div style="border: 1px solid #add8e6; padding: 5px; margin-top: 10px;"> <p> Note The name must be unique under the account.</p> </div>

Response parameters

Parameter	Type	Example	Description
RequestId	String	145318BE-DEE1-4C57-AA7C-5BE7D34A6AE0	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=StartLogging
&Name=trail-test
&<Common request parameters>
```

Sample success responses

XML format

```
<RequestId>1C488B66-B819-4D14-8711-C4EAAA13AC01</RequestId>
```

JSON format

```
{
  "RequestId": "1C488B66-B819-4D14-8711-C4EAAA13AC01"
}
```

Error codes

HTTP status code	Error code	Error message	Description
404	TrailNotFoundExce ption	The specified Trail does not exist.	The error message returned because the specified trail does not exist.

For a list of error codes, visit the [API Error Center](#).


4.5. StopLogging

You can call this operation to disable logging for a trail.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	StopLogging	The operation that you want to perform. Set the value to StopLogging.
Name	String	Yes	trail-test	<p>The name of the trail for which you want to disable logging.</p> <p>The name must be 6 to 36 characters in length. It must start with a letter and can contain letters, digits, hyphens (-), and underscores (_).</p> <div style="border: 1px solid #add8e6; padding: 5px; margin-top: 10px;"> <p> Note The name must be unique under the account.</p> </div>

Response parameters

Parameter	Type	Example	Description
RequestId	String	145318BE-DEE1-4C57-AA7C-5BE7D34A6AE0	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=StopLogging
&Name=trail-test
&<Common request parameters>
```

Sample success responses

XML format

```
<RequestId>1C488B66-B819-4D14-8711-C4EAAA13AC01</RequestId>
```

JSON format


```
{
  "RequestId": "1C488B66-B819-4D14-8711-C4EAAA13AC01"
}
```

Error code

For a list of error codes, visit the [API Error Center](#).

4.6. UpdateTrail

You can call this operation to update the configuration of a trail.

 **Note** By updating the configuration of a trail, you can change the destination Log Service project or Object Storage Service (OSS) bucket to which events are delivered. The request for calling this operation must be sent to the API server in the home region of the trail.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	UpdateTrail	The operation that you want to perform. Set the value to UpdateTrail.

Parameter	Type	Required	Example	Description
Name	String	Yes	trail-test	<p>The name of the trail for which you want to update the configuration.</p> <p>The name must be 6 to 36 characters in length. It must start with a letter and can contain letters, digits, hyphens (-), and underscores (_).</p> <p> Note The name must be unique under the account.</p>
OssBucketName	String	No	yuanch****	<p>The name of the OSS bucket to which events are delivered.</p> <p>The name must be 3 to 63 characters in length. It must start with a lowercase letter or digit and can contain lowercase letters, digits, and hyphens (-).</p> <p> Note Make sure that the bucket exists before you update the configuration of the trail.</p>
OssKeyPrefix	String	No	at-product-account-audit-B	<p>The name prefix of objects to be written to the OSS bucket. This parameter can be left empty.</p> <p>The name must be 6 to 32 characters in length. It must start with a letter and can contain letters, digits, hyphens (-), forward slashes (/), and underscores (_).</p>
RoleName	String	No	aliyunactiontraildefaultrole	<p>The name of the Resource Access Management (RAM) role that ActionTrail is allowed to assume. Default value:</p> <p>aliyunactiontraildefaultrole .</p>

Parameter	Type	Required	Example	Description
SlsProjectArn	String	No	acs:log:cn-shanghai:1162142976628***:project/at-product-account-audit	The unique Alibaba Cloud Resource Name (ARN) of the Log Service project to which events are delivered.
SlsWriteRoleArn	String	No	acs:ram::1162142976628***:role/aliyunactiontraildefaultrole	The unique ARN of the RAM role assumed by ActionTrail for delivering logs to the destination Log Service project.
EventRW	String	No	Write	The read/write type of the delivered events. Valid values: <ul style="list-style-type: none"> Write (Default) Read All
TrailRegion	String	No	All	The regions to which the trail is applied. Valid values: <ul style="list-style-type: none"> All (Default): tracks events in all regions cn-hangzhou : tracks events only in China (Hangzhou). cn-beijing : only events in Beijing are tracked.
MnsTopicArn	String	No	acs:mns:cn-hangzhou:1111:/topics/your-topic-name	The ARN of the Message Service topic to which ActionTrail sends messages. The ARN is in the acs:mns:::/topics/ format. After you specify this parameter, a message is generated and delivered to the MNS Topic when an event is delivered to OSS.

Response parameters

Parameter	Type	Example	Description
Name	String	trail-test	The name of the trail.

Parameter	Type	Example	Description
EventRW	String	Write	The read/write type of the delivered events. Valid values: <ul style="list-style-type: none"> Write (Default) Read All
HomeRegion	String	cn-hangzhou	The home region of the trail.
OssBucketName	String	yuanch****	The name of the OSS bucket to which events are delivered.
OssKeyPrefix	String	at-product-account-audit-B	The name prefix of objects to be written to the OSS bucket.
RoleName	String	aliyunactiontraildefaultrole	The name of the RAM role that ActionTrail is allowed to assume.
SlsProjectArn	String	acs:log:cn-shanghai::project/**	The unique ARN of the Log Service project to which events are delivered.
SlsWriteRoleArn	String	acs:ram::*:role/aliyunactiontraildefaultrole	The unique ARN of the role assumed by ActionTrail for delivering logs to the destination Log Service project.
RequestId	String	145318BE-DEE1-4C57-AA7C-5BE7D34A6AE0	The ID of the request.
MnsTopicArn	String	acs:mns:cn-hangzhou:1111:/topics/your-topic-name	The ARN of the Message Service topic to which ActionTrail sends messages. The ARN is in the <code>acs:mns::*/topics/</code> format. After you specify this parameter, a message is generated and delivered to the MNS Topic when an event is delivered to OSS.

Parameter	Type	Example	Description
TrailRegion	String	All	<p>The regions to which the trail is applied. Valid values:</p> <ul style="list-style-type: none"> All (Default): tracks events in all regions cn-hangzhou : tracks events only in China (Hangzhou). cn-beijing : only events in Beijing are tracked.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=UpdateTrail
&Name=trail-test
&<Common request parameters>
```

Sample success responses

XML format

```
<RequestId>145318BE-DEE1-4C57-AA7C-5BE7D34A6AE0</RequestId>
<Name>trail-test</Name>
<HomeRegion>cn-hangzhou</HomeRegion>
<OssBucketName>yuanch****</OssBucketName>
<OssKeyPrefix>at-product-account-audit-B</OssKeyPrefix>
<RoleName>aliyunactiontraildefaultrole</RoleName>
<SlsProjectArn>acs:log:cn-shanghai::project/****</SlsProjectArn>
<SlsWriteRoleArn>acs:ram:***:role/aliyunactiontraildefaultrole</SlsWriteRoleArn>
```

JSON format

```
{
  "RequestId": "145318BE-DEE1-4C57-AA7C-5BE7D34A6AE0",
  "Name": "trail-test",
  "HomeRegion": "cn-hangzhou",
  "OssBucketName": "yuanch****",
  "OssKeyPrefix": "at-product-account-audit-B",
  "RoleName": "aliyunactiontraildefaultrole",
  "SlsProjectArn": "acs:log:cn-shanghai::project/**",
  "SlsWriteRoleArn": "acs:ram:***:role/aliyunactiontraildefaultrole"
}
```

Error codes

HTTP status code	Error code	Error message	Description
400	RepeatOssBucket	The specified OSS bucket is already in use. We recommend that you modify the existing Trail or specify another bucket.	The error message returned because the specified OSS bucket has been used by an existing trail. We recommend that you update the existing trail or specify another OSS bucket.
400	SlsProjectDoesNotExistException	The specified Log Service project does not exist.	The error message returned because the specified Log Service project does not exist.
404	TrailNotFoundExce ption	The specified Trail does not exist.	The error message returned because the specified trail does not exist.
404	BucketDoesNotExis tException	The specified OSS bucket does not exist.	The error message returned because the specified OSS bucket does not exist.
400	IncompleteSignatu re	The request signature does not conform to Alibaba Cloud standards.	The error message returned because the request signature does not conform to the standards of Alibaba Cloud. Check whether the AccessKey ID and AccessKey secret are correct and whether the signature method is appropriate. For more information, see Signature method.

HTTP status code	Error code	Error message	Description
403	InsufficientBucketPolicyException	Access to the specified OSS bucket was denied.	The error message returned because you are not authorized to access the specified OSS bucket.
403	InsufficientSlsPolicyException	Access to the specified Log Service project was denied.	The error message returned because you are not authorized to access the specified Log Service project.
400	InvalidDeliveryConfigurationException	You must specify at least one Log Service project or OSS bucket for a Trail.	The error message returned because you did not specify a Log Service project or an OSS bucket as the event delivery destination.
400	InvalidPrefixException	The specified OSS bucket prefix is invalid.	The error message returned because the object name prefix specified for the destination OSS bucket is invalid.

For a list of error codes, visit the [API Error Center](#).

4.7. DeleteTrail


You can call this operation to delete a trail.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteTrail	The operation that you want to perform. Set the value to DeleteTrail.

Parameter	Type	Required	Example	Description
Name	String	Yes	my-test	<p>The name of the trail that you want to delete.</p> <p>The name must be 6 to 36 characters in length. It must start with a letter and can contain letters, digits, hyphens (-), and underscores (_).</p> <div style="border: 1px solid #add8e6; padding: 5px; margin-top: 10px;"> <p> Note The name must be unique under the account.</p> </div>

Response parameters

Parameter	Type	Example	Description
RequestId	String	145318BE-DEE1-4C57-AA7C-5BE7D34A6AE0	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DeleteTrail
&Name=my-test
&<Common request parameters>
```

Sample success responses

XML format

```
<RequestId>145318BE-DEE1-4C57-AA7C-5BE7D34A6AE0</RequestId>
```

JSON format

```
{
  "RequestId": "145318BE-DEE1-4C57-AA7C-5BE7D34A6AE0"
}
```

Error code

For a list of error codes, visit the [API Error Center](#).

5. Query

5.1. DescribeRegions

Queries DescribeRegions available Alibaba cloud regions.

For more information, see [regions and zones](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeRegions	The operation that you want to perform. Set the value to DescribeRegions.
AccessKeyId	String	No	LTAI4FoDkCf4DU1bic1V****	Call AssumeRole this AccessKey is required when you call the operation.

Response parameters

Parameter	Type	Example	Description
Regions			The list of regions.
Region			The ID of the region where the production studio resides.
RegionId	String	cn-shanghai	The ID of the region.
RequestId	String	Cost	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeRegions
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeRegionsResponse>
  <RequestId>38EC7366-F5A9-46B1-BDB1-0FDC2E296397</RequestId>
  <Regions>
    <Region>
      <RegionId>cn-shanghai</RegionId>
    </Region>
    <Region>
      <RegionId>cn-qingdao</RegionId>
    </Region>
  </Regions>
</DescribeRegionsResponse>
```

JSON format

```
{
  "DescribeRegionsResponse":{
    "RequestId":"38EC7366-F5A9-46B1-BDB1-0FDC2E296397",
    "Regions":{
      "Region":[
        {
          "RegionId":"cn-shanghai"
        },
        {
          "RegionId":"cn-qingdao"
        }
      ]
    }
  }
}
```

Error code

For a list of error codes, visit the [API Error Center](#).

5.2. LookupEvents

You can call this operation to query events.

When you call this operation to query historical events for a single-account trail, you can query the events two times per second at most.


Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters


Parameter	Type	Required	Example	Description
Action	String	Yes	LookupEvents	The operation that you want to perform. Set the value to LookupEvents.
Event	String	No	AD9CD9DA-EC2D-4EB7-A817-C0442A94****	The ID of the event.
Request	String	No	AD9CD9DA-EC2D-4EB7-A817-C0442A94****	The ID of the request
EventType	String	No	ConsoleSignin	<p>The type of the event. Valid values:</p> <ul style="list-style-type: none"> • ApiCall: specifies an API call. • ConsoleOperation: specifies an operation in the Alibaba Cloud Management Console. • AliyunServiceEvent: specifies an operation that is automatically performed by an Alibaba Cloud service. • PasswordReset: specifies a password reset. • ConsoleSignin: specifies a logon to the Alibaba Cloud Management Console. • ConsoleSignout: specifies a logoff to the Alibaba Cloud Management Console.
ServiceName	String	No	AsaSub	The name of the cloud service.
EventName	String	No	ConsoleSignin	The name of the event.

Parameter	Type	Required	Example	Description
User	String	No	yanjie.wyj	The name of the RAM user who calls the operation.
ResourceType	String	No	Instance	The type of the resource.
ResourceName	String	No	i-bp14664y88udkt45****	The name of the resource.
EventRW	String	No	Write	The read/write type of the event. Valid values: <ul style="list-style-type: none"> Read: a read event. Write: a write event. It is the default value. All: read and write events.
EventAccessKeyId	String	No	LTAI4FoDkCf4DU1bic1V****	The AccessKey ID used in the event.
NextToken	String	No	20	The token for requesting the next page of query results. <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 5px; margin-top: 10px;"> <p> Note The request parameters must be the same as those of the last request.</p> </div>
MaxResults	String	No	20	The maximum number of entries to be returned. Valid values: 0 to 50.

Parameter	Type	Required	Example	Description
StartTime	String	No	2020-06-15T14:00:00Z	<p>The beginning of the time range to query. The default time is seven days prior to the current time. Specify the time in the ISO 8601 standard in the <code>yyyy-MM-ddTHH:mm:ssZ</code> format. The time must be in UTC.</p> <p> Note The maximum time range is 30 days. You can query events in the recent 90 days.</p>
EndTime	String	No	2020-06-22T14:00:00Z	<p>The end of the time range to query. The default time is the current time. Specify the time in the ISO 8601 standard in the <code>yyyy-MM-ddTHH:mm:ssZ</code> format. The time must be in UTC.</p> <p> Note The maximum time range is 30 days. You can query events in the recent 90 days.</p>

For more information about the fields in an event log, see [ActionTrail event log reference](#).

Response parameters

Parameter	Type	Example	Description
Events	List	AD9CD9DA-EC2D-4EB7-A817-C0442A94****	The returned event.
NextToken	String	1	<p>The token for returning the next page of query results.</p> <p> Note This parameter is not returned if no more results are to be returned.</p>

Parameter	Type	Example	Description
StartTime	String	2020-07-15T14:00:00Z	The beginning of the time range when events were queried.
EndTime	String	2020-07-22T14:00:00Z	The end of the time range when events were queried.
RequestId	String	FD79665A-CE8B-49D4-82E6-5EE2E0E791DD	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=LookupEvents
&<Common request parameters>
```

Sample success responses

XML format

```
<LookupEventsResponse>
  <RequestId>FD79665A-CE8B-49D4-82E6-5EE2E0E791DD</RequestId>
  <StartTime>2020-07-15T14:00:00Z</StartTime>
  <EndTime>2020-07-22T14:00:00Z</EndTime>
</LookupEventsResponse>
```

JSON format

```
{
  "RequestId": "FD79665A-CE8B-49D4-82E6-5EE2E0E791DD",
  "Events": [],
  "StartTime": "2020-07-15T14:00:00Z",
  "EndTime": "2020-07-22T14:00:00Z"
}
```

Error codes

HttpCode	Error code	Error message	Description
----------	------------	---------------	-------------

HttpCode	Error code	Error message	Description
400	IncompleteSignature	The request signature does not conform to Alibaba Cloud standards.	The error message is returned because the request signature does not conform to the standards of Alibaba Cloud. Check whether the AccessKey ID and AccessKey secret are correct and whether the signature method is appropriate. For more information, see Signature method.
400	InvalidParameterCombination	The end time must be later than the start time.	The error message is returned because the end of the time range is earlier than or equal to the beginning.
400	InvalidQueryParam	The specified query parameter is invalid.	The error message is returned because the specified request parameters are invalid.
400	InvalidParameterDateOutOfRange	Query time range exceeds 30 days.	The error message is returned because the specified time range exceeds 30 days.
400	InvalidParameterEndTime	The specified EndTime is invalid.	The error message is returned because the value of the EndTime parameter is invalid.
400	InvalidParameterStartTime	The specified StartTime is invalid.	The error message is returned because the StartTime parameter is invalid.
400	InvalidParameterStartTimeExceedsCurrent	The StartTime exceeds the current time. Use GMT time format for queries.	The error message is returned because the beginning of the time range is later than the current time. Specify a valid time range in UTC.
400	InvalidParameterStartTimeOutOfDate	The StartTime exceeds the limit of 90 days.	The error message is returned because the beginning of the time range is more than 90 days before the current time.
400	InvalidTimeRangeException	The end time must be later than the start time. The time span cannot exceed 30 days.	The error message is returned because the specified time range is invalid. The end of the time range is earlier than or equal to the beginning and the time range exceeds 30 days.

For a list of error codes, visit the [API Error Center](#).

