

Alibaba Cloud ActionTrail

User Guide

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Generic conventions

Table -1: Style conventions

Style	Description	Example
	This warning information 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.
	This warning information 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 restore business.
	This indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: Take the necessary precautions to save exported data containing sensitive information.
	This indicates supplemental instructions, best practices, tips, and other content that is good to know for the user.	 Note: You can use Ctrl + A to select all files.
>	Multi-level menu cascade.	Settings > Network > Set network type
Bold	It is used for buttons, menus, page names, and other UI elements.	Click OK.
<code>Courier</code> font	It is used for commands.	Run the <code>cd / d C :/ windows</code> command to enter the Windows system folder.
<i>Italics</i>	It is used for parameters and variables.	<code>bae log list --instanceid Instance_ID</code>
[] or [a b]	It indicates that it is an optional value, and only one item can be selected.	<code>ipconfig [-all -t]</code>

Style	Description	Example
<code>{}</code> or <code>{a b}</code>	It indicates that it is a required value, and only one item can be selected.	<code>switch {stand slave}</code>

Contents

Legal disclaimer.....	I
Generic conventions.....	I
1 Limits.....	1
2 Alibaba Cloud services that work with ActionTrail.....	2
3 Console user guide.....	5
3.1 Quick reference.....	5
4 Control user permissions.....	6
4.1 ActionTrail operations and resources supported by RAM.....	6
4.2 Grant the ActionTrail operation permission to RAM users.....	7
5 ActionTrail event log syntax.....	9
6 ActionTrail Event Examples.....	15
6.1 ECS event log examples.....	15
6.2 RDS event log examples.....	16
6.3 SLB.....	17
6.4 RAM.....	18
6.5 STS event log examples.....	19
6.6 ActionTrail event log examples.....	20
6.7 CDN event log examples.....	21
6.8 ConsoleSignin event log examples.....	23
6.9 KMS event log examples.....	24

1 Limits

Table 1-1: Description

Item	Restriction
Number of trails that each user can create	One
Number of OSS buckets that a trail can have access to	One
The time required for being able to query a log through the console after an event occurs	Generally, within 10 minutes
The time required for being able to query a log in the OSS bucket after an event occurs	Generally, within 10 minutes
The period that ActionTrail records are saved and can be viewed through the console or using APIs	The last 30 days
The maximum file size of compressed ActionTrail records that can be saved to OSS buckets	2 KB

2 Alibaba Cloud services that work with ActionTrail

Elastic Computing

- Elastic Compute Service
- Auto Scaling
- Container Service
- Container Registry
- Simple Application Server
- Batch Compute
- E-HPC
- Web Hosting
- Elastic Container Instance

Storage

- Network Attached Storage

Databases

- ApsaraDB for RDS
- Data Transmission Service
- HybridDB for PostgreSQL
- ApsaraDB for Redis

Networking

- Virtual Private Cloud
- VPN Gateway
- Elastic IP Address
- Express Connect
- Global Acceleration
- Cloud Enterprise Network
- Server Load Balancer
- Smart Access Gateway

Media Services and CDN

- Alibaba Cloud CDN

- **ApsaraVideo for VOD**
- **ApsaraVideo for Live**
- **ApsaraVideo for Media Processing**

Domain & Hosting

- **Domains**
- **Alibaba Cloud DNS**

Application Service

- **API Gateway**
- **Blockchain as a Service**

Middleware

AliwareMQ for RocketMQ

Cloud Communications

- **Short Message Service**
- **Short Message Service APIs**

Security

- **Anti-DDoS Pro**
- **Anti-DDoS Premium**
- **New BGP Anti-DDoS Service PRO**
- **Web Application Firewall**
- **Web Application Firewall APIs**
- **Server Guard**
- **Cloud Firewall**
- **Website Threat Inspector**

Big Data

- **E-MapReduce**
- **QuickBI**

IoT

IoT Platform

Management and Monitoring

- CloudMonitor
- Resource Access Management
- Identity Manegement Service
- Account Logon, includes the following products:
 - Cloud Account Logon
 - RAM User Logon
- Security Token Service
- ResourceManager
- ActionTrail
- Resource Orchestration Service
- Key Management Service

Membership Service

Billing Management APIs

3 Console user guide

3.1 Quick reference

You can use the [ActionTrail console](#) to perform the following operations:

- [#unique_7](#)
- [#unique_8](#)

4 Control user permissions

4.1 ActionTrail operations and resources supported by RAM

You can create a RAM account by using Alibaba Cloud RAM, and authorize the RAM account to operate ActionTrail. We strongly recommend this approach for security consideration.

List of ActionTrail operations that can be authorized to a RAM account

ActionTrail operations that can be authorized to a RAM account are as follows:

- CreateTrail
- UpdateTrail
- DeleteTrail
- DescribeTrails
- GetTrailStatus
- StartLogging
- StopLogging
- LookupEvents

Format resources

Alibaba Cloud resources are formatted as follows when granting permissions to RAM accounts.

Resource	Description
*	All cloud resources.
acs:actiontrail:\${region}:\${AccountId}:	Resources in a specified region.

Authorization policy example

- Example 1: As a RAM administrator, grant a user read-only permission.

```
{
  "Version": "1",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "actiontrail:LookupEvents",
        "actiontrail:Describe*",
        "actiontrail:Get*"
      ]
    }
  ]
}
```

```

    " Resource ": "*"
  }]
}

```

- **Example 2: As a RAM administrator, grant a user read-only permission when they log on from a specified IP address.**

```

{
  " Version ": " 1 ",
  " Statement ": [{
    " Effect ": " Allow ",
    " Action ": [
      " actiontrail : LookupEvents ",
      " actiontrail : Describe *",
      " actiontrail : Get *"
    ],
    " Resource ": "*",
    " Condition ":{
      " IpAddress ": {
        " acs : SourceIp ": " 42 . 120 . XX . X / 24 "
      }
    }
  }]
}

```

4.2 Grant the ActionTrail operation permission to RAM users

This topic describes how to authorize RAM users to use ActionTrail resources by using system policies or custom policies.

Prerequisites

Before getting started, you must create a RAM user. For more information, see [#unique_12](#).

Attach ActionTrail system policies to a RAM user

The available system policies are as follows:

Table 4-1: System policies

System policy	Description
AliyunActionTrailFullAccess	Grants a RAM user full management permissions for ActionTrail resources.
AliyunActionTrailReadOnlyAccess	Grants a RAM user read-only permission for ActionTrail resources.

For more information about how to attach a policy, see [#unique_13](#).

Attach ActionTrail custom policies to a RAM user

If the system policies cannot meet your requirements, you can create a custom policy. For more information, see [#unique_14](#). The following is a policy example of allowing requests from a specified IP range for performing ActionTrail read-only operations on all resources. The policy is as follows:

```
{
  "Version": " 1 ",
  "Statement": [{
    "Effect": " Allow ",
    "Action": [
      " actiontrai l : LookupEven ts ",
      " actiontrai l : Describe *",
      " actiontrai l : Get *"
    ],
    "Resource": "*",
    "Condition": {
      "IpAddress": {
        "acs : SourceIp ": " 42 . 120 . XX . X / 24 "
      }
    }
  }]
}
```


5 ActionTrail event log syntax

Key fields in an event log

apiVersion

- **Type:** String
- **Required:** Yes
- **Description:** The version of the API being called.

eventId

- **Type:** String
- **Required:** Yes
- **Description:** The GUID generated by ActionTrail for the event.

eventName

- **Type:** String
- **Required:** Yes
- **Description:** The name of the API being called. For example, `StopInstance` of `Ecs`. For more information, see the List of operations by function section of each Alibaba Cloud service supported by ActionTrail.

eventSource

- **Type:** String
- **Required:** Yes
- **Description:** The URL of the server for processing the API request. For example, `ram.aliyuncs.com`.

eventTime

- **Type:** String
- **Required:** Yes
- **Description:** The UTC date and time when the event occurred.

eventType

- **Type:** String
- **Required:** Yes

- **Description:** The type of the event. Event types include `ApiCall` (event triggered when a user or the console calls an API) and `ConsoleSignin` (event triggered when a user uses the primary or RAM account to log on to the console).

eventVersion

- **Type:** String
- **Required:** Yes
- **Description:** The version of the ActionTrail event format. The current version is 1.

errorCode

- **Type:** String
- **Required:** No
- **Description:** The error code returned when an error occurs during API request processing. For example, `NoPermission`.

errorMessage

- **Type:** String
- **Required:** No
- **Description:** The error message returned when an error occurs during API request processing. For example, "You are not authorized."

requestId

- **Type:** String
- **Required:** Yes
- **Description:** The unique ID generated by the Alibaba Cloud service in use for the API request that is received.

requestParameters

- **Type:** Dictionary
- **Required:** No
- **Description:** The parameters in the API request. For more information, see the List of operations by function section of each Alibaba Cloud service supported by ActionTrail.

responseElements

- **Type:** Dictionary

- **Required:** No
- **Description:** The elements in the API response. For more information, see the [List of operations by function](#) section of each Alibaba Cloud service supported by ActionTrail.

referencedResources

- **Type:** Dictionary
- **Required:** No
- **Description:** The resources referenced by the API.

serviceName

- **Type:** String
- **Required:** Yes
- **Description:** The name of the Alibaba Cloud service in use. For example, `Ecs`, `Rds`, and `Ram`.

sourceIpAddress

- **Type:** String
- **Required:** Yes
- **Description:** The IP address from which the API request is sent. If the API is called by a user on the console, the user's IP address is recorded, not the IP address of the web server of the console.

userAgent

- **Type:** String
- **Required:** Yes
- **Description:** The agent through which the API request is sent. The value is set to `AliyunConsole` for the console, and `aliyuncli / 2 . 0 . 6` for SDK.

userIdentity

- **Type:** Dictionary
- **Required:** Yes
- **Description:** The identity information of the requester.

Fields in the userIdentity syntax

Name	Required	Description
type	Yes	The identity type. Valid values: <code>root</code> - account (primary accounts), <code>ram</code> - user (RAM users), and <code>assumed</code> - role (RAM roles).
principalId	Yes	The ID of the requester . If the request is made by a primary account , the ID of the primary account is recorded. If the request is made by a RAM user, the RAM user ID is recorded. If the request is made by a RAM role, <code>RoleID:RoleSessionName</code> is recorded.
accountId	Yes	The ID of the primary account.
accessKeyId	No	This parameter is required when the API request is made through SDK, and is not required when the API request is made through the console.
userName	No	If the request is made by a RAM user, the RAM user ID is recorded. If the request is made by a RAM role, <code>roleName:roleSessionName</code> is recorded.

Name	Required	Description
sessionContext	No	The session context recorded when an STS token is used to call an API, or an operation is performed through the console. For more information about an STS token, see #unique_16 . sessionContext includes creationDate (the time when a session is created) and mfaAuthenticated (whether multi-factor authentication is used for logging on to the console).

userIdentity examples

- An operation performed by a RAM user through SDK

```
"userIdentity": {
  "type": "ram-user",
  "principalId": "2881533486_8278_****",
  "accountId": "1122334455_66_****",
  "accessKeyId": "55nCtAwMPL_kk_****",
  "userName": "B_**"
}
```

- An operation performed by a RAM user through the console

```
"userIdentity": {
  "type": "ram-user",
  "principalId": "2881533486_8278_****",
  "accountId": "1122334455_66_****",
  "userName": "B_**",
  "sessionContext": {
    "attributes": {
      "mfaAuthenticated": "true",
      "creationDate": "2015-12-31T06:33:14Z"
    }
  }
}
```

- An operation performed by a RAM role through SDK

```
"userIdentity": {
  "type": "assumed-role",
  "principalId": "2881533486_8278_****: a_****",
  "accountId": "1122334455_66_****",
}
```

```
" accessKeyId ": " STS . F24gnHkUE7 dER4rsFFQ4 n ****",  
" userName ": " manager : a ****"  
}
```

6 ActionTrail Event Examples

6.1 ECS event log examples

A RAM user stops the specified ECS instance by using the console

```
{
  " apiVersion ": " 2014 - 05 - 26 ",
  " eventId ": " f4788483 - 70fc - 476b - 839b - af5ed11170 cd ",
  " eventName ": " StopInstan ce ",
  " eventSource ": " ecs - cn - hangzhou . aliyuncs . com ",
  " eventTime ": " 2016 - 01 - 04T09 : 47 : 40Z ",
  " eventType ": " ApiCall ",
  " eventVersion ": " 1 ",
  " recipientAccountId ": " 4 ****",
  " requestId ": " 275A832E - 4C6A - 47BE - A432 - C18DDD79FD AB ",
  " requestParameters ": {
    " ForceStop ": " true ",
    " InstanceId ": " i - 22nyr ****"
  },
  " serviceName ": " Ecs ",
  " sourceIpAddress ": " 42 . 120 . XX . XX ",
  " userAgent ": " AliyunCons ole ",
  " userIdentity ": {
    " type ": " ram - user ",
    " accountId ": " 4 ****",
    " principalId ": " 2881533486 8278 ****",
    " userName ": " B **",
    " sessionContext ": {
      " attributes ": {
        " creationDate ": " 2016 - 01 - 04T09 : 47 : 40Z ",
        " mfaAuthenticated ": " true "
      }
    }
  }
}
```

A RAM user stops the specified ECS instance by using the SDK

```
{
  " apiVersion ": " 2014 - 05 - 26 ",
  " eventId ": " e0cdf18f - e5ec - 4c5f - b37c - 99b608b941 8c ",
  " eventName ": " StopInstan ce ",
  " eventSource ": " ecs - cn - hangzhou . aliyuncs . com ",
  " eventTime ": " 2016 - 01 - 04T09 : 47 : 40Z ",
  " eventType ": " ApiCall ",
  " eventVersion ": " 1 ",
  " recipientAccountId ": " 4 ****",
  " requestId ": " FC33D0AB - 1C6B - 4B4E - 911D - E939122AA2 48 ",
  " requestParameters ": {
    " ForceStop ": " true ",
    " InstanceId ": " i - 84udj ****"
  },
  " serviceName ": " Ecs ",
}
```

```

    "sourceIpAddress": "42.120.XX.XX",
    "userAgent": "aliyuncli / 2.0.6",
    "userIdentity": {
      "type": "ram-user",
      "accountId": "4****",
      "principalId": "2881533486_8278****",
      "userName": "B**",
      "accessKeyId": "IE8ITksrR3_SD****"
    }
  }
}

```

6.2 RDS event log examples

A RAM user stops the specified RDS instance by using the console

```

{
  "apiVersion": "2014-08-15",
  "eventId": "2687bb47-548b-4338-8c0c-e839cd80f0ef",
  "eventName": "RestartDBInstance",
  "eventSource": "rds-cn-hangzhou.aliyuncs.com",
  "eventTime": "2016-01-04T09:48:13Z",
  "eventType": "ApiCall",
  "eventVersion": "1",
  "recipientAccountId": "43274",
  "requestId": "EC7BC9A6-C198-4187-AA52-61519826A3D5",
  "requestParameters": {
    "DBInstanceID": "rds43zn9z7-w7qrq21901"
  },
  "serviceName": "Rds",
  "sourceIpAddress": "42.120.74.96",
  "userAgent": "AliyunConsole",
  "userIdentity": {
    "type": "ram-user",
    "accountId": "43274",
    "principalId": "2881533486_82784898",
    "userName": "Bob",
    "sessionContext": {
      "attributes": {
        "creationDate": "2016-01-04T09:48:13Z",
        "mfaAuthenticated": "true"
      }
    }
  }
}

```

A RAM user stops the specified RDS instance by using the SDK

```

{
  "apiVersion": "2014-08-15",
  "eventId": "b14e6544-c5c0-47bd-a81f-893b7567e761",
  "eventName": "RestartDBInstance",
  "eventSource": "rds-cn-hangzhou.aliyuncs.com",
  "eventTime": "2016-01-04T09:48:13Z",
  "eventType": "ApiCall",
  "eventVersion": "1",
  "recipientAccountId": "43274",
  "requestId": "804431E9-3912-4544-B0F8-8737532D0117",
  "requestParameters": {
    "DBInstanceID": "rds43zn9z7-w7qrq21901"
  }
}

```



```

    },
    "serviceName": "Rds",
    "sourceIpAddress": "42.120.74.96",
    "userAgent": "aliyuncli / 2.0.6",
    "userIdentity": {
      "type": "ram-user",
      "accountId": "43274",
      "principalId": "288153348682784898",
      "userName": "Bob",
      "accessKeyId": "I8EITksrR3SoUz3"
    }
  }
}

```

6.3 SLB

A RAM user stops the specified SLB instance by using the console

```

{
  "apiVersion": "2014-05-15",
  "eventId": "a8a6d6db-6bc8-4f4d-8b9e-7aaad259079d",
  "eventName": "DeleteLoadBalancer",
  "eventSource": "slb-pop.aliyuncs.com",
  "eventTime": "2016-01-04T09:48:49Z",
  "eventType": "ApiCall",
  "eventVersion": "1",
  "recipientAccountId": "4****",
  "requestId": "AC792886-742C-4384-948E-24CE0026FC42",
  "requestParameters": {
    "LoadBalancerId": "1520c072d76-ap-southeast-os30****"
  },
  "serviceName": "Slb",
  "sourceIpAddress": "42.120.XX.XX",
  "userAgent": "AliyunConsole",
  "userIdentity": {
    "type": "ram-user",
    "accountId": "4****",
    "principalId": "28815334868278****",
    "userName": "B**",
    "sessionContext": {
      "attributes": {
        "creationDate": "2016-01-04T09:48:49Z",
        "mfaAuthenticated": "true"
      }
    }
  }
}

```

A RAM user stops the specified SLB instance by using the SDK

```

{
  "apiVersion": "2014-05-15",
  "eventId": "87b31697-aa12-4a0c-ad9c-c1b2b4c1a374",
  "eventName": "DeleteLoadBalancer",
  "eventSource": "slb-pop.aliyuncs.com",

```

```

    "eventTime": "2016-01-04T09:48:49Z",
    "eventType": "ApiCall",
    "eventVersion": "1",
    "recipientAccountId": "4****",
    "requestId": "D090401A-7BF6-48C8-BC14-2E774436630C",
    "requestParameters": {
      "LoadBalancerId": "1520c072d76-ap-southeast-os30****"
    },
    "serviceName": "Slb",
    "sourceIpAddress": "42.120.XX.XX",
    "userAgent": "aliyuncli/2.0.6",
    "userIdentity": {
      "type": "ram-user",
      "accountId": "4****",
      "principalId": "28815334868278****",
      "accessKeyId": "55nCtAwmPLkk****",
      "userName": "B**"
    }
  }
}

```

6.4 RAM

A RAM user uses the RAM service in the console

```

{
  "apiVersion": "2015-05-01",
  "eventId": "2cc52dee-d8d2-40c2-8de0-3a2cf1df****",
  "eventName": "DeleteGroup",
  "eventSource": "ram.aliyuncs.com",
  "eventTime": "2015-11-03T13:41:49Z",
  "eventType": "ApiCall",
  "eventVersion": "1",
  "requestId": "9AE24F49-C52C-4F0F-BCF9-9A4B8C22B147",
  "requestParameters": {
    "GroupName": "grp1"
  },
  "serviceName": "Ram",
  "sourceIpAddress": "42.120.XX.XX",
  "userAgent": "AliyunConsole",
  "userIdentity": {
    "type": "ram-user",
    "principalId": "27418064654829****",
    "accountId": "123456789012****",
    "userName": "Alice",
    "sessionContext": {
      "sessionAttributes": {
        "creationDate": "2015-11-03T13:41:48Z",
        "mfaAuthenticated": "true"
      }
    }
  }
}

```

A RAM user uses the RAM service through the SDK

```
{
  " apiVersion ": " 2015 - 05 - 01 ",
  " eventId ": " 234ef3c7 - 8938 - 4bd7 - bb80 - 11754b7b ****",
  " eventName ": " CreateGroup ",
  " eventSource ": " ram . aliyuncs . com ",
  " eventTime ": " 2016 - 01 - 04T08 : 58 : 50Z ",
  " eventType ": " ApiCall ",
  " eventVersion ": " 1 ",
  " recipientAccountId ": " 43274 ",
  " requestId ": " 1485748C - DB62 - 4693 - AB7E - 4BA3F3A970 E1 ",
  " requestParameters ": {
    " Comments ": " this is a test group ",
    " GroupName ": " grp1 "
  },
  " serviceName ": " Ram ",
  " sourceIpAddress ": " 42 . 120 . XX . XX ",
  " userAgent ": " aliyuncli / 2 . 0 . 6 ",
  " userIdentity ": {
    " type ": " ram - user ",
    " principalId ": " 2741806465 4829 ****",
    " accountId ": " 43274 ",
    " accessKeyId ": " f6Iz ***** EI4d ",
    " userName ": " Alice "
  }
}
```

6.5 STS event log examples

A RAM user switches the role by using the console

```
{
  " apiVersion ": " 2015 - 04 - 01 ",
  " eventId ": " 64e9b93e - 13da - 4ea4 - 8b72 - 081069ff4d 8c ",
  " eventName ": " AssumeRole ",
  " eventSource ": " sts . aliyuncs . com ",
  " eventTime ": " 2016 - 01 - 05T02 : 41 : 58Z ",
  " eventType ": " ApiCall ",
  " eventVersion ": " 1 ",
  " recipientAccountId ": " 1024405406 19 ****",
  " requestId ": " F678C471 - BEAA - 4DE4 - B09E - FD7F5A5248 E8 ",
  " requestParameters ": {
    " RoleArn ": " acs : ram :: 43274 : role / ram - admin ",
    " RoleSessionName ": " lisi "
  },
  " serviceName ": " Sts ",
  " sourceIpAddress ": " 42 . 120 . 74 . 96 ",
  " userAgent ": " AliyunConsole ",
  " userIdentity ": {
    " type ": " ram - user ",
    " accountId ": " 1024405406 19 ****",
    " principalId ": " 2489491519 6108 *****",
    " userName ": " lisi ",
    " sessionContext ": {
      " attributes ": {
        " creationDate ": " 2016 - 01 - 05T02 : 41 : 58Z ",
        " mfaAuthenticated ": " true "
      }
    }
  }
}
```

```

    }
  }
}

```

A RAM user calls the STS to switch the role by using the SDK

```

{
  " apiVersion ": " 2015 - 04 - 01 ",
  " eventId ": " 23f2a6b5 - c628 - 49bb - 8dc9 - 8f9760503b c6 ",
  " eventName ": " AssumeRole ",
  " eventSource ": " sts . aliyuncs . com ",
  " eventTime ": " 2016 - 01 - 05T02 : 41 : 58Z ",
  " eventType ": " ApiCall ",
  " eventVersion ": " 1 ",
  " recipientAccountId ": " 1024 ***** 6576 ",
  " requestId ": " 8BE01A78 - 4026 - 4E7D - B4E1 - 95B0323E96 8E ",
  " requestParameters ": {
    " RoleArn ": " acs : ram :: 43274 : role / ram - admin ",
    " RoleSessionName ": " lisi "
  },
  " serviceName ": " Sts ",
  " sourceIpAddress ": " 42 . 120 . 74 . 96 ",
  " userAgent ": " aliyunccli / 2 . 0 . 6 ",
  " userIdentity ": {
    " type ": " ram - user ",
    " accountId ": " 1024405406 19 ****",
    " principalId ": " 2489491519 6108 ****",
    " accessKeyId ": " 55nCtAwmPL kk ****",
    " userName ": " lisi "
  }
}

```

6.6 ActionTrail event log examples

A RAM user uses the ActionTrail service in the console

```

{
  " apiVersion ": " 2015 - 09 - 28 ",
  " eventId ": " b4e23d3c - 9ba7 - 441e - ad25 - 04dd2d0aeb 0f ",
  " eventName ": " UpdateTrail ",
  " eventSource ": " actiontrail . cn - hangzhou . aliyuncs . com ",
  " eventTime ": " 2016 - 01 - 06T03 : 29 : 15Z ",
  " eventType ": " ApiCall ",
  " eventVersion ": " 1 ",
  " requestId ": " 3E2B90FE - 0B7B - 40FB - A9CE - 5C80A3F134 2F ",
  " requestParameters ": {
    " CreateNewBucket ": " false ",
    " Name ": " default ",
    " OssBucketName ": " trail ",
    " OssKeyPrefix ": "",
    " Region ": " cn - hangzhou ",
    " RoleName ": " aliyunactiontraildefaultrole ",
    " StartLogging ": " false "
  },
}

```

```

    "serviceName": "ActionTrail",
    "sourceIpAddress": "42.120.74.96",
    "userAgent": "AliyunConsole",
    "userIdentity": {
      "type": "ram-user",
      "principalId": "288153348682784898",
      "accountId": "43274",
      "userName": "Bob",
      "sessionContext": {
        "attributes": {
          "creationDate": "2016-01-06T03:29:15Z",
          "mfaAuthenticated": "true"
        }
      }
    }
  }
}

```

A RAM user calls ActionTrail through the SDK

```

{
  "apiVersion": "2015-09-28",
  "eventId": "aee5874f-1478-47df-932f-0ffd1851fc5f",
  "eventName": "UpdateTrail",
  "eventSource": "actiontrail.cn-hangzhou.aliyuncs.com",
  "eventTime": "2016-01-06T03:29:15Z",
  "eventType": "ApiCall",
  "eventVersion": "1",
  "requestId": "0D690264-0D51-4B4F-8AEE-CDEB3ABD1929",
  "requestParameters": {
    "CreateNewBucket": "false",
    "Name": "default",
    "OssBucketName": "trail",
    "OssKeyPrefix": "",
    "Region": "cn-hangzhou",
    "RoleName": "aliyunactiontraildefaultrole",
    "StartLogging": "false"
  },
  "serviceName": "ActionTrail",
  "sourceIpAddress": "42.120.74.96",
  "userAgent": "aliyuncli/2.0.6",
  "userIdentity": {
    "type": "ram-user",
    "principalId": "274180646548292385",
    "accountId": "43274",
    "accessKeyId": "f6Iz*****EI4d",
    "userName": "Alice"
  }
}

```

6.7 CDN event log examples

A RAM user uses the CDN service in the console

```

{

```

```

    " apiVersion ": " 2014 - 11 - 11 ",
    " eventId ": " 1f869a5d - 7542 - 4f76 - 94e0 - 5c24b520 ****",
    " eventName ": " AddCdnDomain ",
    " eventSource ": " cdn . aliyuncs . com ",
    " eventTime ": " 2016 - 01 - 05T03 : 30 : 58Z ",
    " eventType ": " ApiCall ",
    " eventVersion ": " 1 ",
    " recipientAccountId ": " 1024405406 19 ****",
    " requestId ": " AF2FBB8D - 64E1 - 4CC1 - 8849 - E35C5BDB53 A4 ",
    " requestParameters ": {
      " CdnType ": " web ",
      " DomainName ": " test2 . jaso ****. com ",
      " SourceType ": " oss ",
      " Sources ": " sampleshard . oss - cn - hangzhou . aliyuncs
. com "
    },
    " serviceName ": " Cdn ",
    " sourceIpAddress ": " 42 . 120 . XX . XX ",
    " userAgent ": " AliyunConsole ",
    " userIdentity ": {
      " type ": " ram - user ",
      " accountId ": " 1024405406 19 ****",
      " principalId ": " 2489491519 6108 ****",
      " userName ": " lisi ",
      " sessionContext ": {
        " attributes ": {
          " creationDate ": " 2016 - 01 - 05T03 : 30 : 58Z ",
          " mfaAuthenticated ": " false "
        }
      }
    }
  }
}

```

A RAM user calls CDN through the SDK

```

{
  " apiVersion ": " 2014 - 11 - 11 ",
  " eventId ": " 1b6a3ec7 - 576b - 435f - b249 - 9edca1e980 8e ",
  " eventName ": " AddCdnDomain ",
  " eventSource ": " cdn . aliyuncs . com ",
  " eventTime ": " 2016 - 01 - 05T03 : 30 : 58Z ",
  " eventType ": " ApiCall ",
  " eventVersion ": " 1 ",
  " recipientAccountId ": " 1024405406 19 ****",
  " requestId ": " 179CDCB1 - CC2D - 496A - BE38 - 723CBAEA24 1A ",
  " requestParameters ": {
    " CdnType ": " web ",
    " DomainName ": " test2 . jaso ****. com ",
    " SourceType ": " oss ",
    " Sources ": " sampleshard . oss - cn - hangzhou . aliyuncs
. com "
  },
  " serviceName ": " Cdn ",
  " sourceIpAddress ": " 42 . 120 . XX . XX ",
  " userAgent ": " aliyuncli / 2 . 0 . 6 ",
  " userIdentity ": {
    " type ": " ram - user ",
    " accountId ": " 1024405406 19 ****",
    " principalId ": " 2489491519 6108 ****",
    " accessKeyId ": " 55nCtAwmPL kk ****",
    " userName ": " lisi "
  }
}

```

```
}
}
```

6.8 ConsoleSignin event log examples

A RAM user logs on to the console

- A RAM user successfully log on to the console

```
{
  "additionalEventData": {
    "callbackUrl": "https://home.console.aliyun.com/",
    "mfaChecked": "true"
  },
  "eventId": "93e806df-a005-40a8-b6b1-f58004aebb28",
  "eventName": "ConsoleSignin",
  "eventSource": "signin.aliyun.com",
  "eventTime": "2016-01-20T01:47:45Z",
  "eventType": "ConsoleSignin",
  "eventVersion": "1",
  "requestId": "621948aa-c03a-4acd-b4b0-116a9fa3257a",
  "serviceName": "Aas",
  "sourceIpAddress": "42.120.74.96",
  "userAgent": "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_10_2) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/47.0.2526.106 Safari/537.36",
  "userIdentity": {
    "accountId": "1122334455667788",
    "principalId": "288153348682784898",
    "type": "ram-user",
    "userName": "zhangsan"
  }
}
```

- A RAM user fails to log on to the console

```
{
  "additionalEventData": {
    "callbackUrl": "https://home.console.aliyun.com/",
    "mfaChecked": "false"
  },
  "errorCode": "AuthenticationFailed",
  "errorMessage": "Failed authentication.",
  "eventId": "f31de4a1-fb34-4299-b2e1-ae8803c1e2c",
  "eventName": "ConsoleSignin",
  "eventSource": "signin.aliyun.com",
  "eventTime": "2016-01-20T04:17:23Z",
  "eventType": "ConsoleSignin",
  "eventVersion": "1",
  "requestId": "7fecff6c-5ca0-4be5-99b4-61dc7e1d984c",
  "serviceName": "Aas",
  "sourceIpAddress": "42.120.74.96",
}
```

```

    " userAgent ": " Mozilla / 5 . 0 ( Macintosh ; Intel Mac
    OS X 10_10_2 ) AppleWebKit / 537 . 36 (KHTML , like
    Gecko ) Chrome / 47 . 0 . 2526 . 106 Safari / 537 . 36 ",
    " userIdentity ": {
        " accountId ": " 1122334455 667788 ",
        " principalId ": " 2881533486 82784898 ",
        " type ": " ram - user ",
        " userName ": " zhangsan "
    }
}

```

A user logs on to the console by using the primary account

A user successfully logs on to the console by using the primary account

```

{
    " additionalEventData ": {
        " isMFAChecked ": false ,
        " loginAccount ": " testuser @ aliyun . com "
    },
    " eventId ": " a53844f9 - 7d41 - 4c39 - aaf7 - 350e04cac2 f1 ",
    " eventName ": " ConsoleSignin ",
    " eventSource ": " account . aliyun . com ",
    " eventTime ": " 2016 - 01 - 20T01 : 48 : 58Z ",
    " eventType ": " ConsoleSignin ",
    " eventVersion ": " 1 ",
    " requestId ": " 00693be9 - 3e1c - 4d77 - 84a0 - 025d44add8 0b ",
    " serviceName ": " Aas ",
    " sourceIpAddress ": " 42 . 120 . 74 . 96 ",
    " userAgent ": " Mozilla / 5 . 0 ( Macintosh ; Intel Mac OS
    X 10_10_2 ) AppleWebKit / 537 . 36 (KHTML , like Gecko )
    Chrome / 47 . 0 . 2526 . 106 Safari / 537 . 36 ",
    " userIdentity ": {
        " accountId ": " 1234567890 123456 ",
        " principalId ": " 1234567890 123456 ",
        " type ": " root - account "
    }
}

```

6.9 KMS event log examples

Use the console to obtain key information

```

{
    " eventId ": " 122fa4a4 - 26b4 - 4ae5 - bc87 - 8131edb789 6e ",
    " eventVersion ": " 1 ",
    " requestParameters ": {
        " KeyId ": " b22d0501 - 510e - 4139 - b665 - c38cd3e1 ****"
    },
    " eventSource ": " kms - intranet . cn - shanghai . aliyuncs . com ",
    " sourceIpAddress ": " 42 . 120 . XX . XX ",
    " userAgent ": " AliyunConsole ",
    " userIdentity ": {
        " accountId ": " 1996559326 09 ****",
        " principalId ": " 1996559326 09 ****",
        " userName ": " root ",
        " type ": " root - account "
    }
}

```



```

    },
    "eventType": " ApiCall ",
    "referencedResources": {
      "Key": [
        " b22d0501 - 510e - 4139 - b665 - c38cd3e1 ****"
      ]
    },
    "serviceName": " Kms ",
    "apiVersion": " 2016 - 01 - 20 ",
    "requestId": " 122fa4a4 - 26b4 - 4ae5 - bc87 - 8131edb789 6e ",
    "eventTime": " 2018 - 07 - 24T09 : 19 : 28Z ",
    "acsRegion": " cn - shanghai ",
    "eventName": " DescribeKey "
  }
}

```

Use the SDK to create an alias

```

{
  "eventId": " 52253b9e - 97ba - 4e08 - ae27 - 56d9892f2f 82 ",
  "eventVersion": " 1 ",
  "requestParameters": {
    "AliasName": " alias / monitor - 9da5bffe - d846 - 49b5 - b763 - af3ebc5f63 94 ",
    "KeyId": " 9da5bffe - d846 - 49b5 - b763 - af3ebc5f ****"
  },
  "eventSource": " kms . ap - southeast - 2 . aliyuncs . com ",
  "sourceIpAddress": " 42 . 120 . XX . XX ",
  "userAgent": " Go - http - client / 1 . 1 ",
  "userIdentity": {
    "accessKeyId": " uG1lPdiFFw fq ****",
    "accountId": " 1996559326 09 ****",
    "principalId": " 2318245593 2659 ****",
    "userName": " monitor_user ",
    "type": " ram - user "
  },
  "eventType": " ApiCall ",
  "referencedResources": {
    "Key": [
      " 9da5bffe - d846 - 49b5 - b763 - af3ebc5f ****"
    ]
  },
  "serviceName": " Kms ",
  "apiVersion": " 2016 - 01 - 20 ",
  "requestId": " 52253b9e - 97ba - 4e08 - ae27 - 56d9892f2f 82 ",
  "eventTime": " 2018 - 07 - 24T09 : 13 : 04Z ",
  "acsRegion": " ap - southeast - 2 ",
  "eventName": " CreateAlias "
}

```