# Alibaba Cloud

Cloud Firewall Overview

Document Version: 20220620

C-J 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.

- You shall download and obtain this document from the Alibaba Cloud website or other Alibaba Cloudauthorized 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 and/or its affiliates 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
A 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.
O 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.
⑦ Note	A note indicates supplemental instructions, best practices, tips, and other content.	Onte: 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 cd /d C:/window command to enter the Windows system folder.
Italic	Italic formatting is used for parameters and variables.	bae log listinstanceid Instance_ID
[] or [a b]	This format is used for an optional value, where only one item can be selected.	ipconfig [-all -t]
{} or {a b}	This format is used for a required value, where only one item can be selected.	switch {active stand}

## Table of Contents

1.Overview	05
2.Traffic topology visualization	09
3.Authorize Cloud Firewall to access other cloud resources	11
4.Upgrade and renewal	18

## 1.Overview

The Overview page of the Cloud Firewall console displays the overall protection capabilities and statistics on your Cloud Firewall. The statistics include unhandled events, protected assets, security protection data, security policies, traffic trends, scenario-specific data, and recent updates. On the Overview page, you can obtain the overall security status of your network assets.

#### Go to the Overview page

Log on to the Cloud Firewall console. In the left-side navigation pane, click **Overview**. The **Overview** page appears, as shown in the following figure.

Unhandled Event				Last 7 Days 🗸	Asset Protection	🗌 Auto-renewal by Month 瞑
A total of 1 public IP addresses are not protected by	Breached Hosts		Detected Vulnerabilities		Internet Firewall	VPC Firewalls
Cloud Firewall Enable Cloud Firewall for them as soon possible.	0		0	0	47 ⊗   1 0	0 🤄   18 😳
1 Deal					Internal Firewalls	
	Open Ports		Risk Outbound Connections		100	
	8		0		10 0	
Protection				Last 7 Days 🗸	Security Policies	Tutorial of Configurin Access Control Policie
Total Attacks Blocked	Intrusions Blocked (Block Mode-Loose)	Requests Blocked	Vulnerability Exploits	Blocked	➢ Intelligent Policies to be Delivered	Total Access Control Policies
437,518	437,518	0	0		3	5158 Last 7 Days+74
				Show 🗸	С.	CTOC Last / Days+/H
Traffic Trends					Recent Updates	
Traffic Trends				Last 1 Day 🗸		
Traffic Trends Blocking Trends of Inbound Traffic	Blocking Trends of Outbound Traffic				Virtual Patches Rule	es Features
					<ul> <li>kublete API Unauthorized remote command execution</li> </ul>	
Peak Inbound Traffic: 3.92 Mbps     I Peak Outbound Tr	affic 50.54 Kbps			6	Update Time: Aug 19, 2021 00:00 AM.	
4.7 3.92 Mbps				T	CVE-2021-25296: Nagios XI command injection	
3.81 Mbps 9					Update Time: Aug 19, 2021 00:00 AM.	
1.91 Mbps					CVE-2021-21985: VMWare vSphere Client remote code ex	recution
976.56 Kbps	50.54 Kbos				Update Time: Aug 19, 2021 00:00 AM.	
					CVE-2017-14723: WordPress Sql Injection	
Aug 31, 2021, 1	4:56:40 Aug 31, 2021, 19:06:40	Aug 31, 2021, 23:16:40	Sep 1, 2021, 03:26:40 Sep	1, 2021, 07:36:40	Update Time: Aug 19, 2021 00:00 AM.	
Scenario Data				Last 7 Days 🗸	CVE-2020-4888: IBM QRadar SIEM remoteJavaScript Rem	ote Code Execution
					Update Time: Aug 19, 2021 00:00 AM.	
Brute Force Scan Mining Database Intrusio	n			· · · · · · · · · · · · · · · · · · ·	QuarkMail get_att.cgi Remote Command Execution     Update Time: Aug 19, 2021 00:00 AM.	
Attacks	Blocking	Applications	Assets		CVE-2021-34473: Microsoft exchange proxyshell RCE	
	418503	1	52		Update Time: Aug 12, 2021 00:00 AM.	
410305	410505		32		Kingdee OA server file Directory Traversal	
Attacked Applications - Attacks - Blocking		Attacked Assets 😑 Attack	s 🗕 Blocking		Undate Time: Aug 12 2021 00:00 AM	

The **Overview** page consists of seven sections. You can click the following links to view the individual sections:

- Unhandled Event (marked by 1)
- Asset Protection (marked by 2)
- Protection (marked by 3)
- Security Policies (marked by 4)
- Traffic Trends (marked by 5)
- Scenario Data (marked by 6)
- Recent Updates (marked by 7)

In the upper-right corner of the **Overview** page, you can view the edition and remaining validity period of your Cloud Firewall. You can also perform the following operations:

- Click Bandwidth Upgrade, Upgrade, Renew, or Auto Renewal to perform specific operations. For more information, see Upgrade and renewal.
- Click More to view the details of your Cloud Firewall. The details include Protected Internet Traffic, Recent Peak Traffic, Public IP Address Quota, Protected VPCs, Audit Logs Stored, and Multi-account Quota.

	Firewall will expire in 8 days at Bandwidth Upgrade Upgrade Renew Auto Renewal More : 0, 2021 00:00 AM
	Protected Internet Traffic : 200 Mbps Recent Peak Traffic : 3.93 Mbps Bandwidth Upgrade Public IP Address Quota 47 / 400 - Protected VPCs 0 / 5
Asset Protection Internet Firewall	Audit log 5tand 5121 GB / 48828 TB Multi-account Quota 1 / 5 Learn more about cloud firevall
47 ⊘ ∣ 1 0 Internal Firewalls 10 ⊘	Cloud Frewall will expire in 8 days. Renew the service before it expires.

#### **Unhandled Event**

This section displays the following information about your assets: **Breached Hosts**, **Detected Vulnerabilities**, **Open Ports**, and **Risk Outbound Connections**.

Unhandled Event		Last 7 Days 🗸
11 server(s) has been breached, please deal with it as soon as possible.	Breached Hosts	Detected Vulnerabilities
11 Deal	11	0
•••	Open Ports	Risk Outbound Connections
	0	689

In this section, you can perform the following operations:

- Specify a time range for a query: In the upper-right corner of the section, click the time drop-down list and select a specific time range. Available options are Last 1 Day and Last 7 Days.
- Handle an exception event: Move the pointer over a specific type of exception event and click Handle Now. On the page that appears, you can view and handle the exception events of this type. For example, click Handle Now for Risk Outbound Connections. The Outbound Connections page appears, and you can handle the exception events of this type.

For more information about how to handle different types of exception events, see the following topics:

- Breach awareness
- Vulnerability protection
- Internet access
- Outbound connections

#### **Asset Protection**

This section displays the protection status of your assets. In this section, you can view the number of public IP addresses that are protected by the Internet firewall, virtual private cloud (VPC) firewalls, or internal firewalls. You can also view the number of public IP addresses that are not protected by these firewalls.

Asset Protection	🗌 Auto-renewal by Month 🏮
Internet Firewall	VPC Firewalls
47 ତ ∣ 1 0	0 I 18 0
Internal Firewalls	

In the upper-right corner of this section, select **Auto-renewal by Month** to enable Cloud Firewall to continuously protect your network assets.

If an asset is not protected, you can enable the required firewall on the **Firewall Settings** page of the . For more information, see 互联网边界防火墙 and **Enable** or disable VPC Firewall.

#### Protection

This section displays the numbers of times that specific modules are triggered to protect your assets. In this section, you can view Total Attacks Blocked, Intrusions Blocked, Requests Blocked, and Vulnerability Exploits Blocked.

Total Attacks Blocked	Intrusions Blocked (拦截-宽松)	Requests Blocked	Vulnerability Exploits Blocked
4,025,367	4,025,329	0	38
	<u> </u>		$\sim$
Intrusions Blocked 4025329	Brute Force Crac 3197706	Inbound Attacks 0	Elasticsearch 未 37
Vulnerability Expl 38	Mining Behavior 601976	Outbound Attac 0	Redis 4.x/5.x 遗 1
Requests Blocked 0	Scan 113039		
Requests Blocked 0	Scan 113039 Web Attacks 88952		•
Requests Blocked 0	Web Attacks 88952		

In this section, you can perform the following operations:

- Specify a time range for a query: In the upper-right corner of the section, click the time drop-down list and select a specific time range. Available options are Last 1 Day and Last 7 Days.
- View details: Click **Show** in the lower-right corner to view the statistics on different protection modules.

For more information about the protection modules, see the following topics:

- Intrusion prevention
- Overview of access control policies
- Vulnerability protection

#### **Security Policies**

This section displays the statistics on access control policies. In this section, you can view **Intelligent Policies to be Delivered** and **Total Access Control Policies**. You can also view the change in Total Access Control Policies from the last seven days.

Security Policies	Tutorial of Configuring     Access Control Policies
≥ Intelligent Policies to be Delivered	Total Access Control Policies
3	5158 Last 7 Days+74

You can click the number below Intelligent Policies to be Delivered. The Intelligent Policy Recommendation panel of the Access Control page appears. In this panel, you can view and apply the intelligent policies that are recommended by Cloud Firewall. For more information, see Apply intelligent policies.

You can click the number below Total Access Control Policies. The **Access Control** page appears. On this page, you can view and manage access control policies.

In the upper-right corner of this section, you can click **Tutorial of Configuring Access Control Policies** to view the video of **Configure Access Control Policies for the Internet Firewall**.

#### **Traffic Trends**

This section displays the trends in the overall traffic of your assets that are protected by Cloud Firewall, as well as the changes in the sessions whose inbound or outbound traffic is blocked by Cloud Firewall.

#### Overview Overview

affic end				Last 1 Day
	rends of Inbound Traffic Bl	ocking Trends of Outbound	Traffic	
Peak Inbound Traffic: 1.41 Mb	ops   Peak Outbound Traffic:	1.79 Mbps		
1.91 Mbps			Lina mopa	
1.43 Mbps	1.41 Mbps			
976.56 Kbps				
488.28 Kbps				

In this section, you can perform the following operations:

- Specify a time range for a query: In the upper-right corner of the section, click the time drop-down list and select a specific time range. Available options are Last 1 Day and Last 7 Days.
- View a specific trend: Click the Traffic Trends, Blocking Trends of Inbound Traffic, or Blocking Trends of Outbound Traffic tab to view the specific trend.

#### Scenario Data

This section displays the information about brute-force attacks, scanning risks, mining activities, and database intrusions that Cloud Firewall detects on your assets.

Scenario Data					Last 7 Days
Brute Force Scan Mining	Database Intrusion				
Attacks	Blocking		Applications	Assets	
419917	419917		1	52	
Attacked Applications - Attacks	- Blocking		Attacked Assets - Attacka - Bio	sking	
			47. 79 @		99.63 K
					89.63 K
Linux SSH		419.92 K 419.92 K	112 180 Cg 27.27 27.27		
		41832 N	112 184 (1)	ь.	
			24.69 K		

In this section, you can perform the following operations:

- Specify a time range for a query: In the upper-right corner of the section, click the time drop-down list and select a specific time range. Available options are Last 1 Day and Last 7 Days.
- View the data of a specific scenario: Click the **Brute Force**, **Scan**, **Mining**, or **Database Intrusion** tab to view the data of a specific scenario. The following list describes the data on each tab:
  - Brute Force: displays the statistics on brute-force attacks and the rankings of attacked applications and assets. The statistics include Attacks, Blocking, Applications, and Assets.
  - **Scan**: displays the statistics on scanning risks and the rankings of scanned applications and assets. The statistics include **Attacks**, **Blocking**, **Applications**, and **Assets**.
  - Mining: displays the statistics on mining programs and the rankings of attacked applications and assets. The statistics include Attacks, Blocking, Applications, and Assets.
  - **Database Intrusion:** displays the statistics on database intrusions and the rankings of attacked applications and assets. The statistics include **Attacks**, **Blocking**, **Applications**, and **Assets**.

#### **Recent Updates**

This section displays the update records of virtual patches, rules, and features of Cloud Firewall.

	Rules	Features
021-25283: SaltStack	wheel_async Unauthoriz	ed File Upload
te Time: 2021-02-26		
aver-OA validate.jsp cap	talid Sql Injection	
date Time: 2021-02-25		

You can click the Virtual Patches, Rules, or Features tab to view specific update records.

## 2.Traffic topology visualization

The traffic topology visualization feature allows you to view the traffic topologies of cloud assets that are protected by Cloud Firewall. The topologies display traffic of cloud assets at the Internet and virtual private cloud (VPC) boundaries.

#### Supported editions

The traffic topology visualization feature is available only in the Enterprise Edition and Ultimate Edition of Cloud Firewall.

#### Access the Traffic Topology Visualization tab

Log on to the Cloud Firewall console. On the Overview page, click the Traffic Topology Visualization tab.

#### Overview

The Overview section displays Public IP Address, vpc, Traffic, and Intrusion Prevention Mode.

You can view the following information in the Overview section:

- Public IP Address:
  - **Total IP Addresses**: the total number of public IP addresses of the assets within the current Alibaba Cloud account.
  - **Unprotected IP Addresses:** the total number of IP addresses for which the Internet firewall is disabled.

You can click **Enable Firewall** to go to the **Internet Firewall** tab of the **Firewall Settings** page. On the Internet Firewall tab, enable the Internet firewall for the IP addresses that are not protected.

- vpc:
  - Total VPCs: the total number of VPCs that are attached to Cloud Enterprise Network (CEN) instances and VPCs that are connected by using Express Connect circuits within the current Alibaba Cloud account.
  - Unprotected VPCs: the number of VPCs that are not protected by Cloud Firewall.

You can click **Enable Firewall** to go to the **VPC Firewall** tab of the **Firewall Settings** page. On the VPC Firewall tab, you can enable the firewalls for the VPCs that are not protected.

- Traffic:
  - **Peak Traffic in Last 7 Days**: the peak value of traffic that is protected by Cloud Firewall within the previous seven days.
  - **Peak Outbound Traffic**: the peak value of outbound traffic that is protected by Cloud Firewall within the previous seven days.
  - **Peak Inbound Traffic**: the peak value of inbound traffic that is protected by Cloud Firewall within the previous seven days.
- Intrusion Prevention Mode:

The value below Intrusion Prevention Mode is synchronized from the **Prevention Configuration** page. For more information, see 防护配置.

Notice After Cloud Firewall is activated, Block Mode is enabled by default. Cloud Firewall automatically determines the level based on your traffic condition. The threat intelligence, basic protection, and virtual patching modules block threats only after you enable Monitor Mode. If you do not enable Monitor Mode, the modules only monitor threats and malicious traffic.

- Attack:
  - Blocked Attacks: the number of attacks that are blocked by Cloud Firewall.
  - Total Attacks: the total number of attacks on the cloud assets that are protected by Cloud Firewall.
- ACL: the number of created access control policies.

#### Internet Firewall

The Internet Firewall section displays the topology of traffic between the Internet assets within the current Alibaba Cloud account and the Internet.

You can perform the following operations in this section:

- You can click the icon of a cloud asset to view the public IP address of the asset. You can view **Unprotected IP Address** and **Protected IP Address** on the left side of the page.
- You can click an IP address to view the details about the inbound and outbound traffic of the IP address on the left side of the page.

On the **Inbound** tab, you can view the following information: **IP**, **Open Port**, **Intelligent Policy Recommended**, and **Access Control Policy**.

On the **Outbound** tab, you can view the following information: **Outbound Domain**, **Outbound IP Address**, **Intelligent Policy Recommended**, and **Access Control Policy**.

#### **VPC Firewall**

The VPC Firewall section displays the All VPCs and Connected VPC tabs.

• All VPCs: This tab displays the VPCs that are connected by using Express Connect circuits within the current Alibaba Cloud account and the VPCs that are attached to CEN instances. The 💿 icon

indicates a protected VPC, and the 💿 icon indicates an unprotected VPC. You can move the pointer over a VPC to view the detailed information about the VPC.

• **Connected VPC**: This tab displays the details about the VPCs that are connected by using Express Connect circuits and the VPCs that are attached to CEN instances. The (\*) icon indicates a VPC that is

connected by using an Express Connect circuit. The (\*) icon indicates a VPC that is attached to a CEN

instance. You can click **Show** to view the traffic topologies between VPCs.

You can view the total number of the VPCs that are connected by using Express Connect circuits, the VPCs that are attached to CEN instances, and all connected VPCs on the left side of the page. You can click the name of a VPC to view the specific traffic topology.

# 3.Authorize Cloud Firewall to access other cloud resources

The first time you log on to the Cloud Firewall console, you must authorize your Cloud Firewall to access the other cloud resources within your account before you can use features provided by Cloud Firewall. This topic describes how to authorize Cloud Firewall by using the AliyunServiceRoleForCloudFW service-linked role and how to delete this role.

#### Prerequisites

An Alibaba Cloud account or a Resource Access Management (RAM) user that has permissions to create or delete service-linked roles is used.

For more information about how to grant RAM users the permissions on service-linked roles, see FAQ.

#### Context

To provide features such as access control, monitoring, and analysis on cloud traffic, Cloud Firewall must access the other cloud resources within your account, such as ECS instances, VPCs, SLB instances, Log Service, bastion hosts, CEN instances, Security Center, and ApsaraDB RDS instances. You can use the AliyunServiceRoleForCloudFW service-linked role to authorize Cloud Firewall. This role is automatically created. You do not need to manually create or modify a service-linked role. For more information, see Service-linked roles.

#### Procedure

1.

2. In the Service-Linked Role for Cloud Firewall dialog box, click OK.

**Note** If the AliyunServiceRoleForCloudFW service-linked role is created, the dialog box does not appear, and you can directly use Cloud Firewall in the console.

After you click **OK**, Alibaba Cloud automatically creates the AliyunServiceRoleForCloudFW servicelinked role.

You can view the service-linked role on the **RAM Roles** page of the **RAM console**. Your Cloud Firewall can access the other cloud resources within your account only after the AliyunServiceRoleForCloudFW service-linked role is created. The resources include ECS instances, VPCs, SLB instances, Log Service, bastion hosts, CEN instances, Security Center, and ApsaraDB RDS instances.

Create RAM Role AliyunServiceRoleForCloudFV Q			٥
RAM Role Name	Note	Created	Actions
AliyunServiceRoleForCloudFW (Service Linked Role)	Service Linked Role for CloudFW. CloudFW will use this role to acc ess your resources in other services.	Jun 16, 2021, 15:39:54	Delete

#### Permissions of the AliyunServiceRoleForCloudFW service-linked role

By default, the AliyunServiceRoleForCloudFW service-linked role is attached with the AliyunServiceRolePolicyForCloudFW policy. The following code block provides the permissions defined in the AliyunServiceRolePolicyForCloudFW policy:



```
"Statement": [
   {
        "Action": [
            "ecs:DescribeInstances",
            "ecs:DescribeTags",
            "ecs:JoinSecurityGroup",
            "ecs:LeaveSecurityGroup",
            "ecs:AuthorizeSecurityGroupEgress",
            "ecs:DescribeRegions",
            "ecs:DescribeVpcs",
            "ecs:RevokeSecurityGroupEgress",
            "ecs:ModifySecurityGroupAttribute",
            "ecs:DeleteSecurityGroup",
            "ecs:RevokeSecurityGroup",
            "ecs:DescribeSecurityGroupAttribute",
            "ecs:CreateSecurityGroup",
            "ecs:AuthorizeSecurityGroup",
            "ecs:DescribeSecurityGroups",
            "ecs:DescribeSecurityGroupReferences",
            "ecs:ModifySecurityGroupPolicy",
            "ecs:ModifySecurityGroupRule",
            "ecs:ModifySecurityGroupEgressRule",
            "ecs:CreateNetworkInterface",
            "ecs:DeleteNetworkInterface",
            "ecs:DescribeNetworkInterfaces",
            "ecs:CreateNetworkInterfacePermission",
            "ecs:DescribeNetworkInterfacePermissions",
            "ecs:DeleteNetworkInterfacePermission",
            "ecs:AttachNetworkInterface",
            "ecs:DetachNetworkInterface"
        ],
        "Resource": "*",
        "Effect": "Allow"
    },
    {
        "Action": [
            "vpc:DescribeVpcs",
            "vpc:DescribeNatGateways",
            "vpc:DescribeSnatTableEntries",
            "vpc:DescribeForwardTableEntries",
            "vpc:DescribeBandwidthPackages",
            "vpc:DescribeEipAddresses",
            "vpc:DescribeRouterInterfaces",
            "vpc:DescribeRouteTableList",
            "vpc:DescribeRouteTables",
            "vpc:DescribeVSwitches",
            "vpc:CreateRouteEntry",
            "vpc:DeleteRouteEntry",
            "vpc:CreateVpc",
            "vpc:DeleteVpc",
            "vpc:CreateVSwitch",
            "vpc:DeleteVSwitch",
            "vpc:DescribeZones",
            "vpc:CreateVirtualBorderRouter",
```

```
"vpc:ConnectRouterInterface",
        "vpc:ModifyRouterInterfaceAttribute",
        "vpc:DeleteRouterInterface",
        "vpc:CreateRouterInterface",
        "vpc:DeleteVirtualBorderRouter",
        "vpc:DeactivateRouterInterface",
        "vpc:DescribeVirtualBorderRouters",
        "vpc:DescribePhysicalConnections",
        "vpc:ModifyVirtualBorderRouterAttribute",
        "vpc:DescribeVpcAttribute",
        "vpc:DescribeVSwitchAttributes",
        "vpc:DescribeHaVips",
        "vpc:DescribeVpnConnections",
        "vpc:DescribeVpnRouteEntries",
        "vpc:DescribeVpnPbrRouteEntries",
        "vpc:DescribeVpnGateways",
        "vpc:DescribeSslVpnServers",
        "vpc:AssociateEipAddress",
        "vpc:UnassociateEipAddress",
        "vpc:CreateRouteTable",
        "vpc:DeleteRouteTable",
        "vpc:AssociateRouteTable",
        "vpc:UnassociateRouteTable",
        "vpc:CreateSnatEntry",
        "vpc:DeleteSnatEntry",
        "vpc:DescribeSnatTableEntries",
        "vpc:DescribeRouteEntryList"
   ],
   "Resource": "*",
   "Effect": "Allow"
},
   "Action": [
        "slb:DescribeRegions",
        "slb:DescribeLoadBalancers",
        "slb:DescribeLoadBalancerAttribute",
       "slb:DescribeLoadBalancerUDPListenerAttribute",
        "slb:DescribeLoadBalancerTCPListenerAttribute",
        "slb:DescribeLoadBalancerHTTPListenerAttribute",
        "slb:DescribeLoadBalancerHTTPSListenerAttribute",
        "slb:DescribeHealthStatus",
        "slb:DescribeAccessControlListAttribute"
   ],
    "Resource": "*",
   "Effect": "Allow"
},
   "Action": [
        "log:PostLogStoreLogs",
        "log:GetProject",
        "log:ListProject",
        "log:GetLogStore",
        "log:ListLogStores",
        "log:CreateLogStore",
```

```
"log:CreateProject",
        "log:GetIndex",
        "log:CreateIndex",
        "log:UpdateIndex",
        "log:CreateDashboard",
        "log:ClearLogStoreStorage",
        "log:UpdateLogStore",
        "log:UpdateDashboard",
        "log:CreateSavedSearch",
        "log:UpdateSavedSearch",
        "log:DeleteLogStore",
        "log:DeleteSavedSearch",
        "log:GetSavedSearch",
        "log:ListSavedSearch",
        "log:DeleteDashboard",
        "log:GetDashboard",
        "log:ListDashboard"
   ],
   "Resource": "*",
   "Effect": "Allow"
},
{
   "Action": [
        "yundun-bastionhost:DescribeInstance",
        "yundun-bastionhost:DescribeRegions",
        "yundun-bastionhost:DescribeInstances",
        "yundun-bastionhost:DescribeInstanceBastionhost",
        "yundun-bastionhost:DescribeInstanceAttribute"
   ],
   "Resource": "*",
   "Effect": "Allow"
},
{
   "Action": [
        "cen:DescribeCens",
        "cen:DescribeCenAttachedChildInstances",
        "cen:DescribeCenAttachedChildInstanceAttribute",
        "cen:AttachCenChildInstance",
        "cen:DetachCenChildInstance",
        "cen:PublishRouteEntries",
        "cen:WithdrawPublishedRouteEntries",
        "cen:DescribePublishedRouteEntries",
        "cen:DescribeCenRegionDomainRouteEntries",
        "cen:ModifyCenAttribute",
        "cen:CreateCenRouteMap",
        "cen:DeleteCenRouteMap",
        "cen:ModifyCenRouteMap",
        "cen:DescribeCenRouteMaps",
        "cen:DescribeCenChildInstanceRouteEntries",
        "cen:CreateCenChildInstanceRouteEntryToCen",
        "cen:DeleteCenChildInstanceRouteEntryToCen",
        "cen:ListTransitRouters",
        "cen:CreateTransitRouter",
        "cen:DeleteTransitRouter",
```

```
"cen:ListTransitRouterAttachments",
    "cen:CreateTransitRouterVpcAttachment",
    "cen:DeleteTransitRouterVpcAttachment",
    "cen:UpdateTransitRouterVpcAttachmentAttribute",
    "cen:UpdateTransitRouterPeerAttachmentAttribute",
    "cen:CreateTransitRouterVbrAttachment",
    "cen:DeleteTransitRouterVbrAttachment",
    "cen:ListTransitRouterPeerAttachments",
    "cen:ListTransitRouterVpcAttachments",
    "cen:ListTransitRouterVbrAttachments",
    "cen:ListTransitRouterAvailableResource",
    "cen:CreateTransitRouterRouteTable",
    "cen:UpdateTransitRouterRouteTable",
    "cen:DeleteTransitRouterRouteTable",
    "cen:ListTransitRouterRouteTables",
    "cen:CreateTransitRouterRouteEntry",
    "cen:DeleteTransitRouterRouteEntry",
    "cen:ListTransitRouterRouteEntries",
    "cen:ListTransitRouterRouteTableAssociations",
    "cen:AssociateTransitRouterAttachmentWithRouteTable",
    "cen:DissociateTransitRouterAttachmentFromRouteTable",
    "cen:ListTransitRouterRouteTablePropagations",
    "cen:EnableTransitRouterRouteTablePropagation",
    "cen:DisableTransitRouterRouteTablePropagation",
    "cen:ModifyCenUserQuota"
],
"Resource": "*",
"Effect": "Allow"
"Action": [
    "netana:DescribeNetworkQuotas",
    "netana:DescribeNetworkQuotaRequestResult",
    "netana:CreateNetworkQuotaRequest"
],
"Resource": "*",
"Effect": "Allow"
"Action": [
    "yundun-sas:DescribeVulList",
    "yundun-sas:DescribeVulDetails"
],
"Resource": "*",
"Effect": "Allow"
"Action": [
    "rds:DescribeDBInstances"
1,
"Resource": "*",
"Effect": "Allow"
Washing W. Humme Guasha Gaussi and index JDala
```

},

}, {

}, {

},

```
"Action": "ram:CreateServiceLinkedKole",
            "Resource": "*",
            "Effect": "Allow",
            "Condition": {
                "StringEquals": {
                    "ram:ServiceName": "cen.aliyuncs.com"
                }
            }
        },
        {
            "Action": [
                "resourcemanager:ListAccounts"
            ],
            "Resource": "*",
            "Effect": "Allow"
        },
        {
            "Action": "ram:DeleteServiceLinkedRole",
            "Resource": "*",
            "Effect": "Allow",
            "Condition": {
                "StringEquals": {
                    "ram:ServiceName": "cloudfw.aliyuncs.com"
                }
            }
       }
   ]
}
```

For more information about the policy syntax, see Policy elements.

#### Delete a service-linked role

If you no longer use Cloud Firewall, you can delete the AliyunServiceRoleForCloudFW service-linked role. Before you can delete the service-linked role, make sure that your Cloud Firewall expires and is automatically released. After your Cloud Firewall is released, perform the following steps:

- 1. Log on to the RAM console.
- 2. In the left-side navigation pane, click RAM Roles.
- 3. Search for the AliyunServiceRoleForCloudFW service-linked role and click **Delete** in the Actions column.
- 4. Click OK.

#### FAQ

Why is the AliyunServiceRoleForCloudFW service-linked role not automatically created for my RAM user?

The AliyunServiceRoleForCloudFW service-linked role can be automatically created or deleted only if your RAM user has the required permissions. To obtain the permissions, you must attach the following policy to your RAM user. For more information, see Grant permissions to a RAM role.

#### Cloud Firewall

```
{
   "Statement": [
       {
           "Action": [
               "ram:CreateServiceLinkedRole"
           ],
           "Resource": "acs:ram:*:Alibaba Cloud account ID:role/*",
           "Effect": "Allow",
           "Condition": {
               "StringEquals": {
                  "ram:ServiceName": [
                      "cloudfw.aliyuncs.com"
                   ]
               }
          }
       }
   ],
   "Version": "1"
}
```

## 4. Upgrade and renewal

Cloud Firewall has the Premium Edition, Enterprise Edition, and Ultimate Edition. You can upgrade your Cloud Firewall to the required edition to use more features.

To upgrade or renew your Cloud Firewall, you can click **Upgrade** or **Renew** in the upper-right corner of the **Overview** page in the Cloud Firewall console.

loud Firewall / Overview				d Firewall will expire in <mark>76</mark> days at 10, 2021 00:00 AM	Feedbac Bandwidth Upgrade Upgrade Renew Auto Renewal More
Unhandled Event			Last 7 Days 🗸	Asset Protection	🗌 Auto-renewal by Month 🦉
Your server has proactively connected to the risky address <b>3</b> time(s), please deal with it as soon as possible.	Breached Hosts	Detected Vulnerabilities		Internet Firewall	VPC Firewalls
	0	0		4 🛛   1 🕐	0 😔   17 🕛
3 Deal	Open Ports	Risk Outbound Connections		Internal Firewalls	
	8	3		3 🖗	

For more information about the features that are supported by different editions, see Features.

For more information about how to upgrade and renew Cloud Firewall, see Renew the subscription to Cloud Firewall.

**Note** We recommend that you renew your Cloud Firewall before it expires for Cloud Firewall to protect your network as expected.