

Container Guard Service

FAQs

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Contents


1 Technologies.....	1
1.1 How Do I Enable Cluster Protection?.....	1
1.2 How Do I Disable Cluster Protection?.....	2
1.3 What Should I Do If the Shield on a Node Is Offline?.....	2
1.4 What Should I Do If I Have No Service Authorization Permissions or Fail to Create an Agency as an IAM User?.....	3
1.5 How Often Are CGS Vulnerability Libraries Updated?.....	3
1.6 When Does CGS Update and Back Up Logs?.....	3
1.7 Where Can I Find My CGS Logs?.....	4
1.8 Does the Shield Plug-in of CGS Affect My Services?.....	4
2 Product Consultation.....	5
2.1 Can CGS Detect Apache Log4j2 Remote Code Execution Vulnerabilities?.....	5
2.2 What Are the Relationships Between Images, Containers, and Applications?.....	6
2.3 Can I Deploy CGS Offline or Across Platforms?.....	7
2.4 Can CGS Be Shared by Multiple Accounts?.....	7
3 Pricing.....	9
3.1 How Do I Renew My CGS Quotas?.....	9
3.2 How Do I Unsubscribe a CGS Quota?.....	10
3.3 When and How Will CGS Be Charged Per Use?.....	11
4 Regions and AZs.....	12
4.1 What Are Regions and AZs?.....	12
A Change History.....	14

1 Technologies

1.1 How Do I Enable Cluster Protection?

Perform the following steps to enable protection, which will automatically install the CGS plug-in in the cluster.

Step 1 [Log in to the management console.](#)

Step 2 In the upper part of the page, select a region, click , and choose **Security & Compliance > Container Guard Service.**

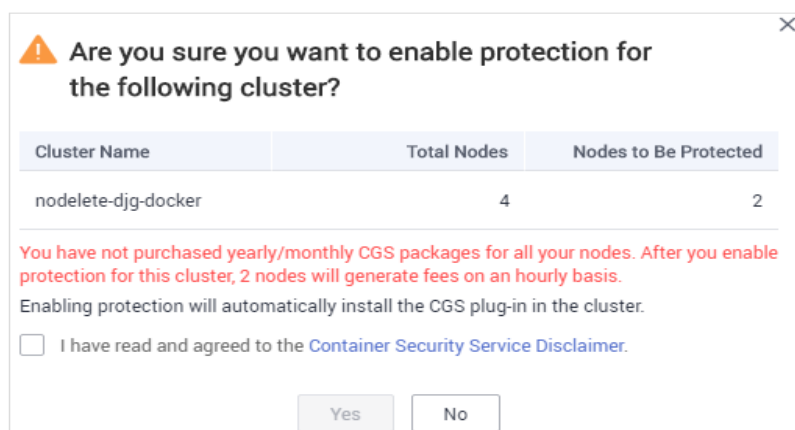
Step 3 Locate the row containing the target cluster and click **Enable Protection** in the **Operation** column.

 **NOTE**

Click the name of a cluster to go to the node list page. You can also click **Enable Protection** on the top of the node list.

Step 4 In the displayed dialog box, read and select **I have read and agreed to the Container Guard Service Disclaimer**, and click **OK.**

Figure 1-1 Enabling protection



After protection is enabled, **Cluster Protection Status** of the cluster is **Enabled**, indicating that protection has been enabled for all available nodes in the cluster.

 **NOTE**


- If you enable CGS for more nodes than can be protected by the yearly/monthly packages you have purchased, you will be charged on an hourly basis for protection of the excess nodes. For details, see [When and How Will CGS Be Charged Per Use?](#)
- CGS automatically enables protection for a new node in the cluster when the node is added to a cluster with protection enabled.
- Enabling protection will automatically install the CGS plug-in in the cluster.

----End

1.2 How Do I Disable Cluster Protection?


Perform the following steps to disable protection, which will automatically uninstall the CGS plug-in from the cluster.

Step 1 [Log in to the management console.](#)

Step 2 In the upper part of the page, select a region, click , and choose **Security & Compliance > Container Guard Service**.

Step 3 Locate the row containing the target cluster and click **Disable Protection** in the **Operation** column.

Figure 1-2 Disabling protection

Cluster Name	Total Nodes/Available Nodes/Online Shields	Cluster Protection Status	Operation
nodelete-djg-docker	2/ 2/ 2	 Enabled	Disable Protection

 **NOTE**

Click the name of a cluster to go to the node list page. You can also click **Disable Protection** on the top of the node list.

Step 4 In the displayed dialog box, click **Yes**.

After protection is disabled, **Cluster Protection Status** of the cluster is **Disabled**, indicating that protection has been disabled for all available nodes in the cluster.

 **NOTE**

Disabling protection will automatically uninstall the CGS plug-in from the cluster.

----End

1.3 What Should I Do If the Shield on a Node Is Offline?

If the shield on a node is offline, check the following items:

- Whether the CGS plug-in has been installed in the cluster
CGS automatically installs the shield on a cluster when you enable protection for the cluster on the CGS console, and uninstalls it when you disable protection. If protection is not enabled for a cluster, the shield is offline.
- Whether cluster node status is normal
The shield will be online only if the node where you installed it is running. If the node status is abnormal, go to HUAWEI CLOUD CCE to fix it.
- After the shield is installed for the first time, it takes a maximum of 5 minutes for the shield status to change to **Online**. After you enable protection, wait for a while before checking the shield status.

1.4 What Should I Do If I Have No Service Authorization Permissions or Fail to Create an Agency as an IAM User?

If you log in to the CGS console as an IAM user and find the **Authorize** button grayed out, it indicates that the IAM user does not have the required permissions. In this case, contact the system administrator with the **Security Administrator** permission to grant the permissions or use the IAM account to apply for and obtain the permissions.

If the number of agencies in your account has reached the maximum, an agency will fail to be created.

After authorization, if the agency fails to be created for CGS, it is probably because the number of agencies already reaches the upper limit. In this case, log in to the IAM console and delete unnecessary agencies, or contact IAM technical support to increase the agency quota.

1.5 How Often Are CGS Vulnerability Libraries Updated?

CGS obtains official vulnerability updates in real time, adds new vulnerabilities to the vulnerability library in the early morning every day, performs comprehensive scans and provides solutions.

- For details about how to check local image vulnerabilities and solutions, see [Managing Local Image Vulnerabilities](#).
- For details about how to check private image vulnerabilities and solutions, see [Managing Private Image Vulnerabilities](#).

1.6 When Does CGS Update and Back Up Logs?

CGS updates logs in its log file every 10 minutes. If the file exceeds 30 MB, CGS will back up the latest 30 MB logs to a backup file and clear the content of the log file.

The name of the backup log file is the name of the log file plus the extension **.last**. For example, the backup file of **shield.log** is **shield.log.last**.

1.7 Where Can I Find My CGS Logs?

CGS logs are stored in the `/var/log/shield` directory of the server where CGS is deployed.

Log files include:

- **shield.log**: CGS run logs and error logs
- **message.log**: communication between the CGS agent and server, such as policy delivery and alarm reporting
- **defender_audit.log**: audit system logs. This file stores audit messages triggered by the audit rules that you manually configured but not used for CGS (if any).

1.8 Does the Shield Plug-in of CGS Affect My Services?

No.

No. The CGS shield is installed as a daemonset plug-in and runs on each node of a cluster in container mode. When the shield plug-in is started, it requests a fixed amount of resources (0.3 vCPU and 300 MB memory). After the shield plug-in is started, it monitors running containers without affecting your services.

2 Product Consultation

2.1 Can CGS Detect Apache Log4j2 Remote Code Execution Vulnerabilities?

Detection of the Apache Log4j2 Remote Code Execution Vulnerability

On December 16, Apache announced that in versions earlier than 2.16.0, there was a remote code execution vulnerability (CVE-2021-45046).

Apache Log4j2 is a widely used Java-based logging utility. If you are an Apache Log4j2 user, check your system and implement timely security hardening.

Reference: <https://logging.apache.org/log4j/2.x/security.html>

- Severity: important (Severity levels: low, moderate, important, and critical)
- Affected versions: all versions later than 2.0-beat9 and earlier than 2.16.0, excluding 2.12.2
- Upgrade affected applications and components, such as spring-boot-starter-log4j2, Apache Solr, Apache Flink, and Apache Druid.
- Secure versions: Apache Log4j 1.x and Apache Log4j 2.16.0
- Vulnerability handling

This vulnerability has been fixed in the official version. Upgrade all applications related to Apache Log4j2 to a secure version as soon as possible.

Link: <https://logging.apache.org/log4j/2.x/download.html>

Java 8 (or later) users should upgrade to release 2.16.0.

Java 7 users should upgrade to release 2.12.2.

Huawei Cloud **Container Guard Service (CGS)** can scan private images for the vulnerability. The basic edition is free of charge. Log in to the CGS console, choose **Image Security**, click the **Image Vulnerabilities** tab, and click the **Private Image Vulnerabilities** tab. For details, see [Managing Private Image Vulnerabilities](#).

 NOTE

- If the upgrade cannot be performed in a timely manner, run the following command to remove the JndiLookup class from the classpath, and restart the service.

```
zip -q -d log4j-core-*.jar org/apache/logging/log4j/core/lookup/  
JndiLookup.class
```

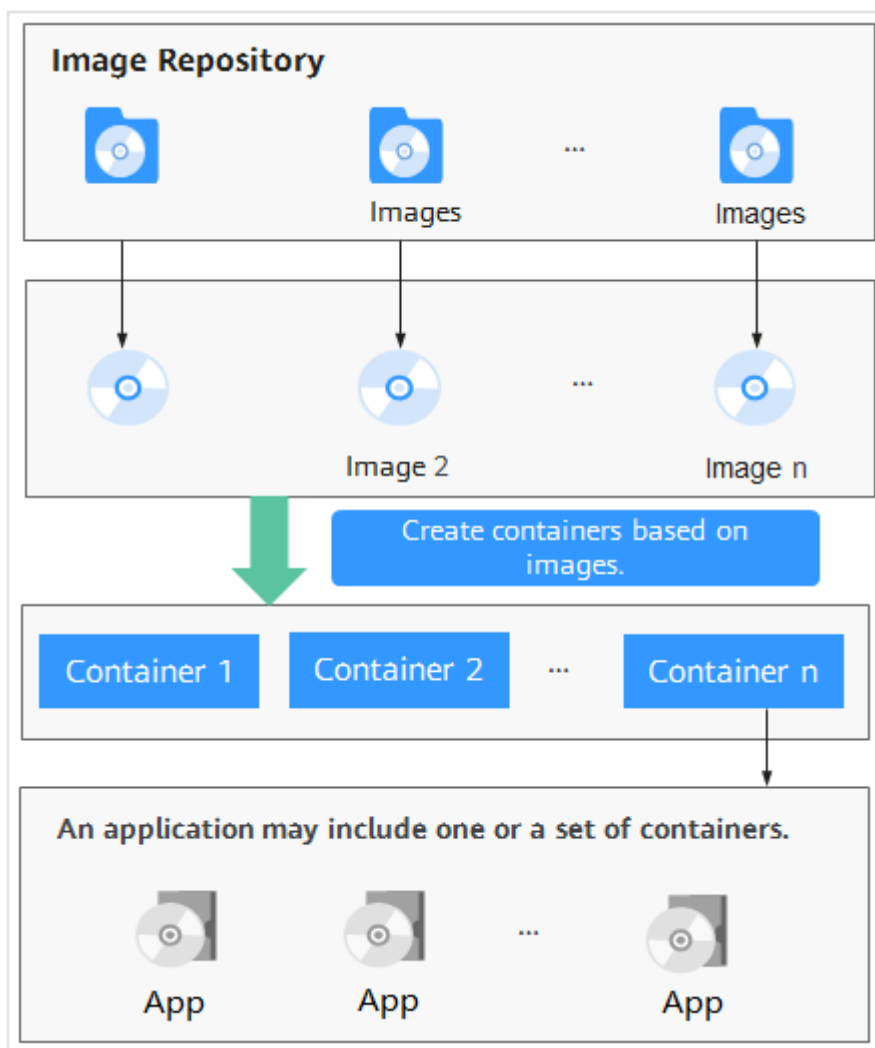
- Note: Before fixing vulnerabilities, **back up** your files and conduct a thorough test.

2.2 What Are the Relationships Between Images, Containers, and Applications?

- An image is a special file system. It provides programs, libraries, resources, configuration files and other files required for a running container. An image also contains some configuration parameters (such as anonymous volumes, environment variables, and users) prepared for a running container. An image does not contain any dynamic data, and its content is unchangeable after creation.
- A container is to an image what an instance is to a class in computer programming. An image is static, and a container is the entity for a running image. A container can be created, started, stopped, deleted, and suspended.
- Multiple containers can be started for an image.
- An application may include one or a set of containers.

Figure 2-1 shows the relationships between images, containers, and applications.

Figure 2-1 Relationships between images, containers, and applications



2.3 Can I Deploy CGS Offline or Across Platforms?

No.

So far, you can only use CGS to scan CCE clusters and SWR images on HUAWEI CLOUD.

2.4 Can CGS Be Shared by Multiple Accounts?

No. For example, if you have two accounts (**domain1** and **domain2**) in a region, and purchase CGS under the **domain1** account, you cannot use the service under **domain2**.

In the same region, all the IAM users of an account can use CGS purchased under the account. Assume you have created a Huawei Cloud account (**domain1**) in a region, and created two IAM users (**sub-user01** and **sub-user02**) under **domain1**. If you have granted the CGS permission policy to **sub-user01** and **sub-user02**, both of them can use CGS purchased by **domain1**.

For details about granting permissions, see [Creating a User and Granting Permissions](#).

3 Pricing

3.1 How Do I Renew My CGS Quotas?


You can renew your CGS quotas before they expire.

Prerequisites

- You have obtained the login account (with the **CGS Administrator**, **Tenant Guest**, and **BSS Administrator** permissions) and password for logging in to the management console.
- You have purchased a CGS quota.

Procedure

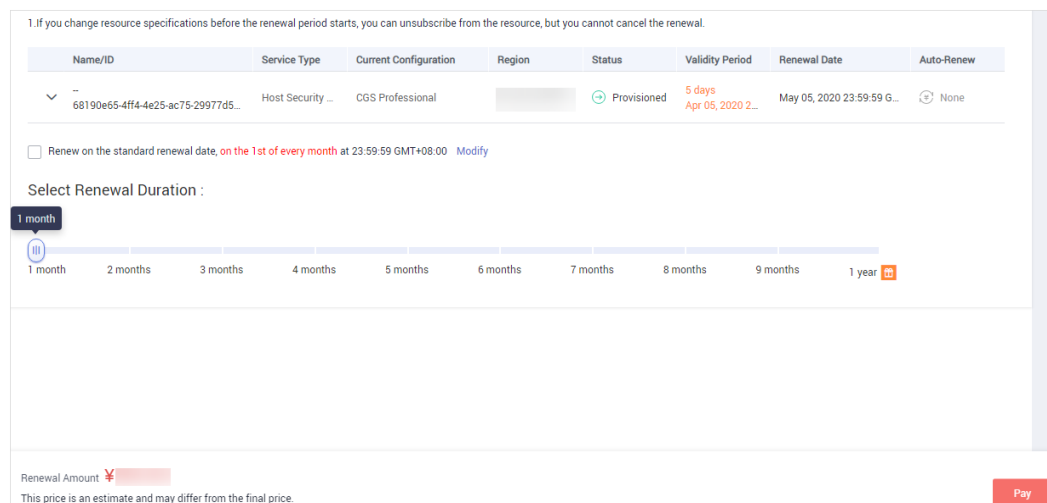
Step 1 [Log in to the management console](#).

Step 2 In the upper part of the page, select a region, click , and choose **Security & Compliance > Container Guard Service**.

Step 3 Click the **Protection Quotas** tab. Click **Renew** in the **Operation** column of a quota.

Step 4 On the renewal page, select a renewal duration and click **Pay**.

Figure 3-1 Renewal page



For details about renewal, see [Renewal](#).

----End

3.2 How Do I Unsubscribe a CGS Quota?


CGS currently supports yearly and monthly subscription. Purchased CGS quota cannot be deleted. If a purchased DBSS instance is no longer needed, you can unsubscribe it.

Prerequisites

- You have obtained the login account (with the **CGS Administrator**, **Tenant Guest**, and **BSS Administrator** permissions) and password for logging in to the management console.
- You have purchased a CGS quota.

Procedure

Step 1 [Log in to the management console](#).

Step 2 In the upper part of the page, select a region, click , and choose **Security & Compliance > Container Guard Service**.

Step 3 Click the **Protection Quotas** tab. Click **Unsubscribe** in the **Operation** column of a quota.

Step 4 Select a reason for unsubscription and select **I understand a Handling fee will be charged for this unsubscription**.

For details about unsubscription, see [Unsubscriptions](#).

Step 5 Click **Unsubscribe**.

----End

3.3 When and How Will CGS Be Charged Per Use?

If you enable CGS for more nodes than can be protected by the yearly/monthly packages you have purchased, you will be charged on an hourly basis for protection of the excess nodes.

Pay-per-use CGS is postpaid on an hourly basis. You can flexibly enable or disable CGS.

You will be billed for the duration from when you enable protection to when you disable it.

Example:

- If you have purchased 10 yearly/monthly packages and enable CGS for 15 nodes, 5 nodes will incur hourly fees.
- If you have purchased 10 yearly/monthly packages and enable CGS for 10 nodes, no hourly fees will be incurred.

 **NOTE**

You will need to pay for services not included with the packages you purchase.

4 Regions and AZs

4.1 What Are Regions and AZs?

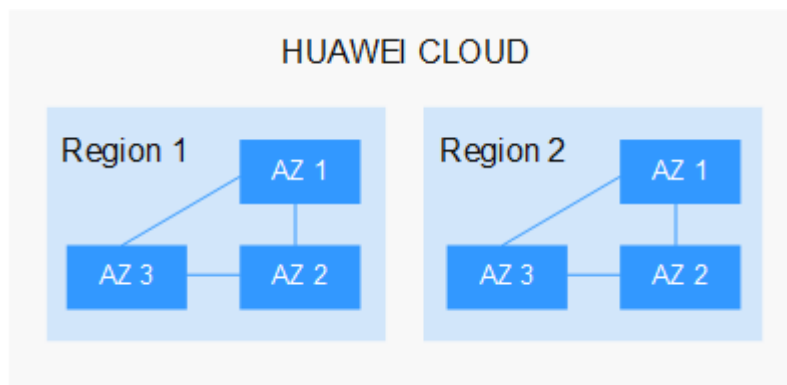
Concepts

A region and availability zone (AZ) identify the location of a data center. You can create resources in a specific region and AZ.

- Regions are divided from the dimensions of geographical location and network latency. Public services, such as Elastic Cloud Server (ECS), Elastic Volume Service (EVS), Object Storage Service (OBS), Virtual Private Cloud (VPC), Elastic IP (EIP), and Image Management Service (IMS), are shared within the same region. Regions are classified as universal regions and dedicated regions. A universal region provides universal cloud services for common tenants. A dedicated region provides services of the same type only or for specific tenants.
- An AZ contains one or more physical data centers. Each AZ has independent cooling, fire extinguishing, moisture-proof, and electricity facilities. Within an AZ, computing, network, storage, and other resources are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to allow you to build cross-AZ high-availability systems.

Figure 4-1 shows the relationship between the regions and AZs.

Figure 4-1 Region and AZ



Huawei Cloud provides services in many regions around the world. You can select a region and AZ as needed.

Selecting a Region

When selecting a region, consider the following factors:

- Location

You are advised to select a region close to you or your target users. This reduces network latency and improves access rate. However, Chinese mainland regions provide basically the same infrastructure, BGP network quality, as well as operations and configurations on resources. Therefore, if you or your target users are in the Chinese mainland, you do not need to consider the network latency differences when selecting a region.

- If you or your users are in the Asia Pacific region and outside the Chinese mainland, select the **CN-Hong Kong**, **AP-Bangkok**, or **AP-Singapore** region.
- If you or your users are in Africa, select the **AF-Johannesburg** region.
- If you or your users are in Latin America, select the **LA-Santiago** region.

- Resource price

Resource prices may vary in different regions. For details, see [Product Pricing Details](#).

Selecting an AZ

When determining whether to deploy resources in the same AZ, consider your applications' requirements on disaster recovery (DR) and network latency.

- For high DR capability, deploy resources in different AZs in the same region.
- For low network latency, deploy resources in the same AZ.

Regions and Endpoints

Before using an API to call resources, specify its region and endpoint. For more details, see [Regions and Endpoints](#).

A Change History

Released On	Description
2022-01-10	This is the second official release. Added Can CGS Detect Apache Log4j2 Remote Code Execution Vulnerabilities?
2021-01-26	This is the first official release.