Anti-DDoS

User Guide

Issue 07

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Contents

1 Setting a Default Protection Policy for Newly Purchased Public IP Addresses

In the **Set Default Protection Policy** dialog box, you can select **Manual** for **Protection Settings** and set the default protection policy. The newly purchased public IP addresses will be protected against DDoS attacks based on the configured default protection policy.

If you want to disable the default protection policy manually configured for newly purchased IP addresses, you can select **Default** for **Protection Settings** in the **Set Default Protection Policy** dialog box.

If you do not set a default protection policy for the newly purchased public IP addresses, the **Protection Settings** in **Default** mode apply to the IP addresses. The value of **Traffic Cleaning Threshold** is **120 Mbps** and **CC Defense** is disabled if you select **Default** for **Protection Settings** in the **Set Default Protection Policy** dialog box.

Prerequisites

You have obtained an account and its password for logging in to the management console.

Manually Setting a Default Protection Policy

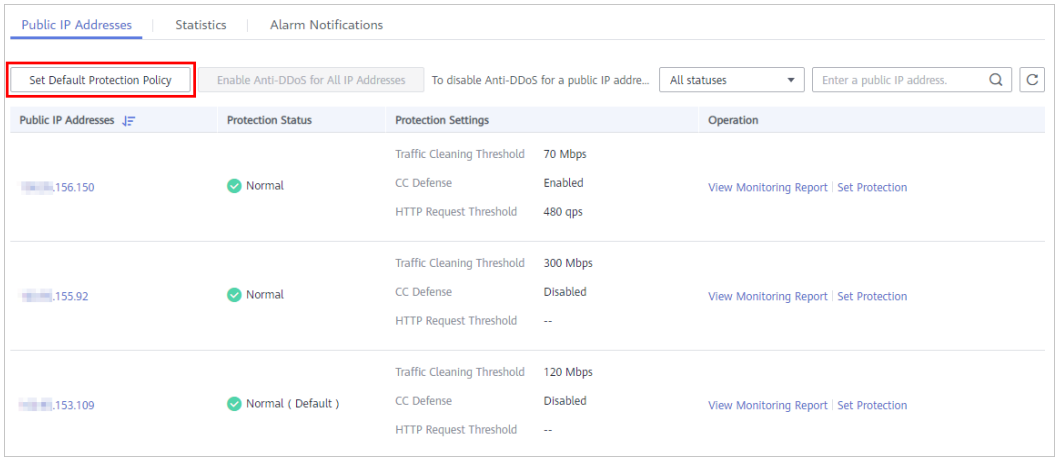
Step 1 Log in to the management console.

Step 2 Click in the upper left corner of the management console and select a region or project.

Step 3 Click in the navigation pane on the left, and choose **Security** > **Anti-DDoS**.

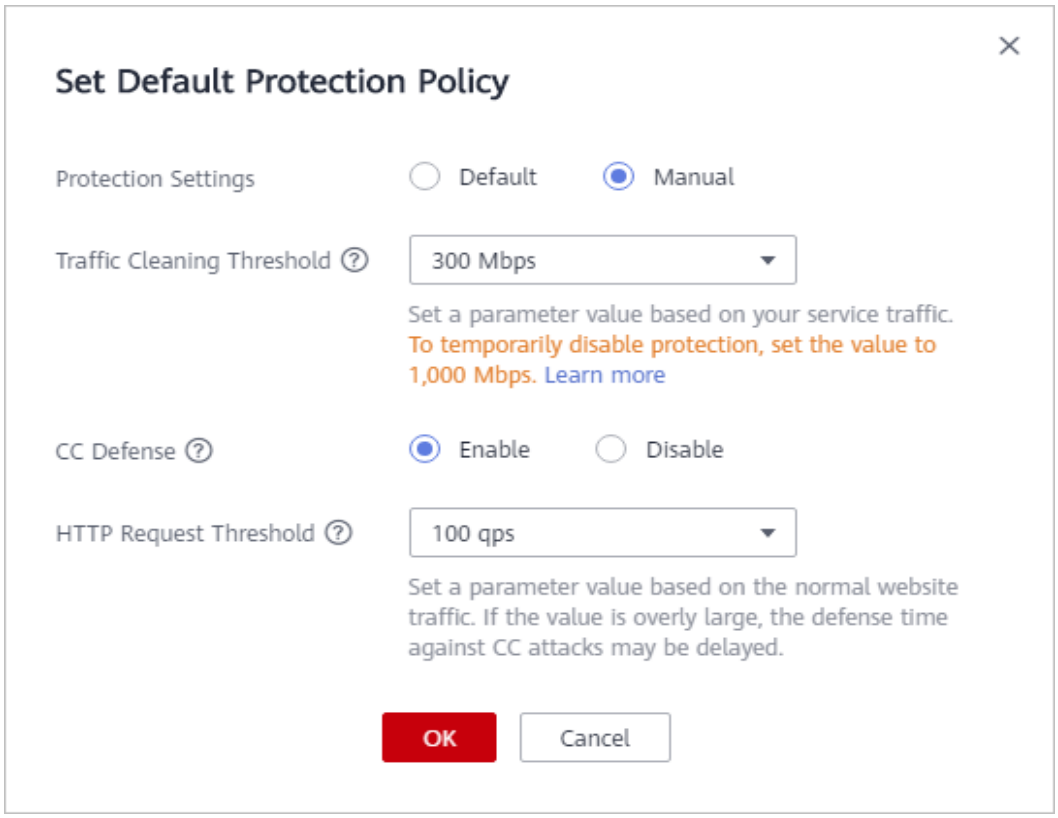
Step 4 Select the **Public IP Addresses** tab and click **Set Default Protection Policy**.

Figure 1-1 Setting a default protection policy for newly purchased public IP addresses



Step 5 In the displayed dialog box, select **Manual** for **Protection Settings**.

Figure 1-2 Manually configuring the default protection policy



Step 6 Configure **Traffic Cleaning Threshold** and **CC Defense**.

Table 1-1 Parameter description

Parameter	Description
Traffic Cleaning Threshold	Anti-DDoS scrubs traffic when detecting that the incoming traffic of an IP address exceeds the threshold. You can set the traffic cleaning threshold based on your service traffic. You are advised to set the threshold to a value closest to the purchased bandwidth but not greater than the purchased bandwidth. **NOTE** If service traffic triggers scrubbing, only attack traffic is intercepted. If service traffic does not trigger scrubbing, no traffic is intercepted. Set this parameter based on the actual service access traffic. You are advised to set a value closest to, but not exceeding, the purchased bandwidth.
CC Defense	• **Disable**: disables the defense. • **Enable**: enables the defense. **NOTE** CC defense is available only for clients that carry web services and support the full HTTP protocol stack. CC defense works in redirection or redirection+verification code mode. If your client does not support the full HTTP protocol stack, you are advised to disable CC defense.
HTTP Request Threshold	This parameter is required only when **CC Defense** is set to **Enable**. This parameter is used to defend against a large number of malicious requests targeting websites. Defense against CC attacks, which aim to exhaust server resources by sending specially crafted GET or POST requests, is triggered when the HTTP request rate on a site reaches the selected value. In EIP protection, the maximum recommended value is **5000**. In ELB protection, the value can be larger. You are advised to set this parameter to the maximum number of HTTP requests that can be processed by the deployed service. Anti-DDoS will automatically scrub traffic if detecting that the total number of requests exceeds the configured HTTP request threshold. If the value is too large, CC defense will not be triggered promptly.

Step 7 Click **OK**.

After the default protection policy is set, the newly purchased public IP addresses are protected based on the default protection policy. For details about how to adjust a configured protection policy, see **Configuring an Anti-DDoS Protection Policy**.

----End

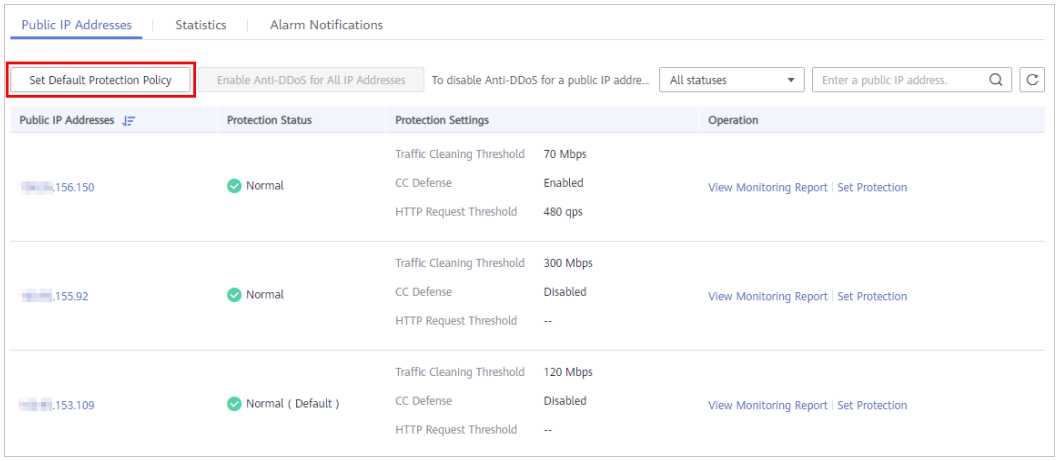
Disabling the Default Protection Policy Manually Configured for Newly Purchased IP Addresses

You can disable the default protection policy manually configured for the newly purchased IP addresses if you do not want the protection policy to apply to the new public IP addresses. Then, the **Protection Settings** in **Default** mode apply to the new IP addresses.

Step 1 Click ☰ in the navigation pane on the left, and choose **Security** > **Anti-DDoS**.

Step 2 Select the **Public IP Addresses** tab and click **Set Default Protection Policy**.

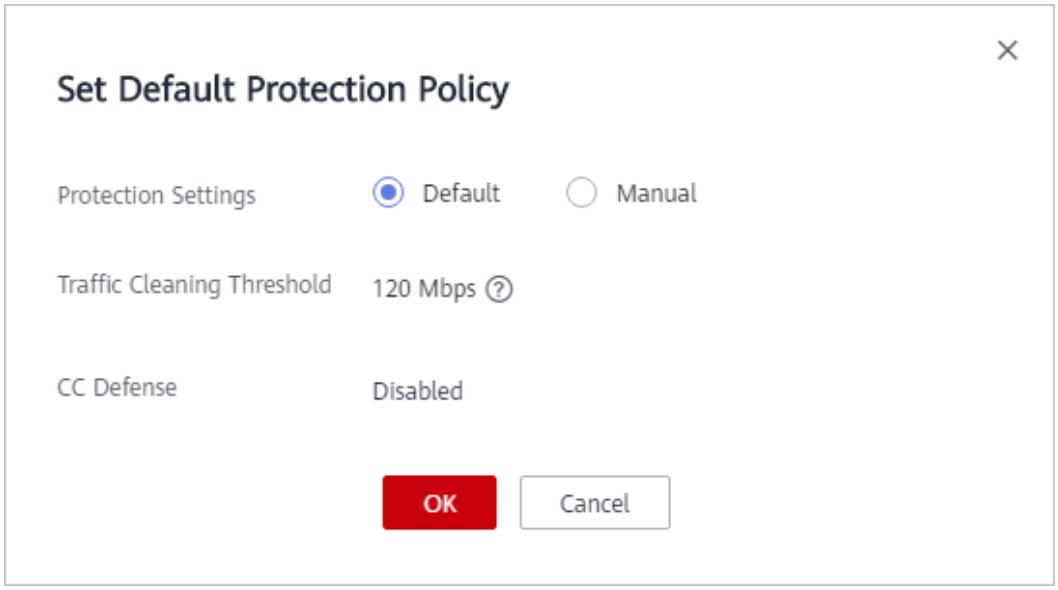
Figure 1-3 Setting a default protection policy for newly purchased public IP addresses



Step 3 Select **Default** for **Protection Settings** in the **Set Default Protection Policy** dialog box.

The value of **Traffic Cleaning Threshold** is **120 Mbps** and **CC Defense** is disabled.

Figure 1-4 Disabling the default protection policy manually configured for newly purchased IP addresses



Step 4 Click **OK**.

The **Protection Settings** in **Default** mode will apply to the new public IP addresses.

----End

2 Viewing a Public IP Address

Scenarios

This topic describes how to view a public IP address.

NOTICE

- After you purchase a public IP address, Anti-DDoS automatically enables the protection by default, and protects your public IP address against DDoS attacks.
- You are not allowed to disable Anti-DDoS after it has been enabled.

Prerequisites

- You have obtained a username and password for logging in to the management console.
- You have purchased at least one public IP address.

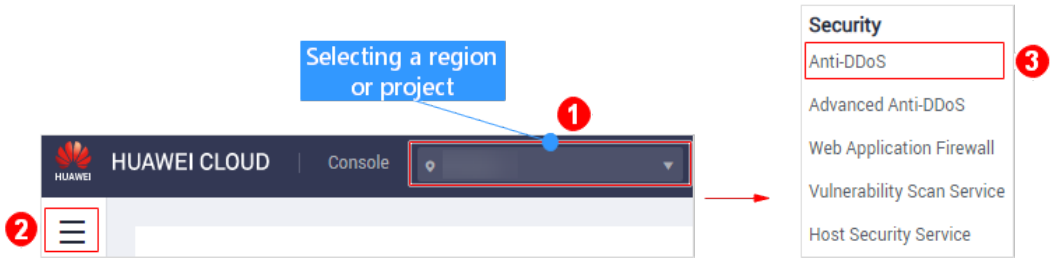
Procedure

Step 1 Log in to the management console.

Step 2 Click in the upper left corner of the management console and select the region and project.

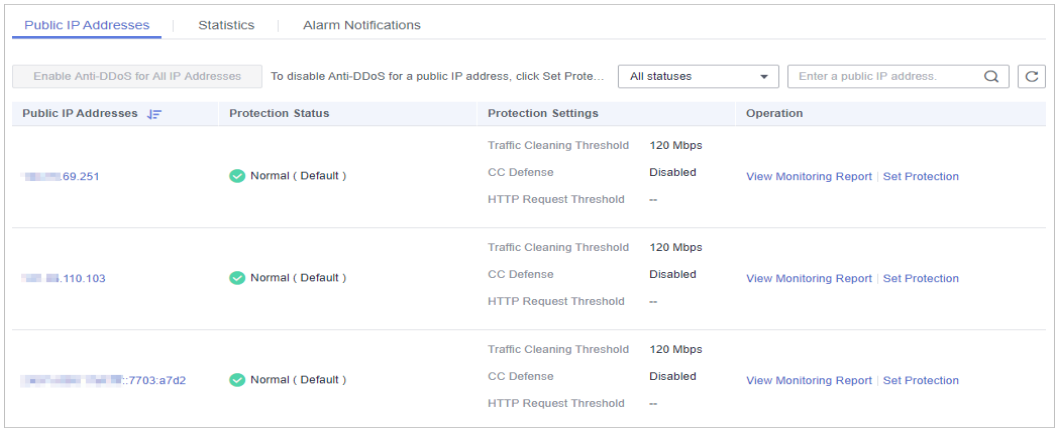
Step 3 click . Under **Security**, choose **Anti-DDoS**.

Figure 2-1 Anti-DDoS



Step 4 On the **Public IP Addresses** tab, view all public IP addresses. **Table 2-1** describes the parameters.

Figure 2-2 Viewing a public IP address



NOTE

- Click **Enable Anti-DDoS for All IP Addresses** to enable the protection for all unprotected IP addresses in the current region.
- After the default Anti-DDoS protection settings are enabled, traffic is scrubbed when its volume reaches 120 Mbit/s. You can modify Anti-DDoS protection settings according to **Configuring an Anti-DDoS Protection Policy**.
- Anti-DDoS provides a 500 Mbit/s mitigation capacity against DDoS attacks. Traffic that exceeds 500 Mbit/s from the attacked public IP addresses will be routed to the black hole and the legitimate traffic will be discarded. Therefore if you may suffer from volumetric attacks exceeding 500 Mbit/s, we recommend you to purchase HUAWEI CLOUD Advanced Anti-DDoS (AAD) for enhanced protection.
- The **All statuses** drop-down box enables you to specify a status so that only public IP addresses of the selected status are displayed.
- Enter a public IP address or a key word of a public IP address in the search box and click or to search for the desired public IP address.

Table 2-1 Parameter description

Parameter	Description
Public IP Address	Public IP address protected by Anti-DDoS **NOTE** If Anti-DDoS is enabled for a public IP address, you can click the IP address to go to its **Monitoring Report** page.

Parameter	Description
Protection Status	Protection status of a public IP address. The values are: • **Normal** • **Configuring** • **Disabled** • **Cleaning** • **Black hole**

----End

3 Enabling Alarm Notification

Scenarios

The alarm notification function sends you alarm notifications (by SMS or email) if a DDoS attack is detected. If you do not enable this function, you have to log in to the management console to view alarms.

Prerequisites

- You have obtained a username and password for logging in to the management console.
- You have purchased at least one public IP address.

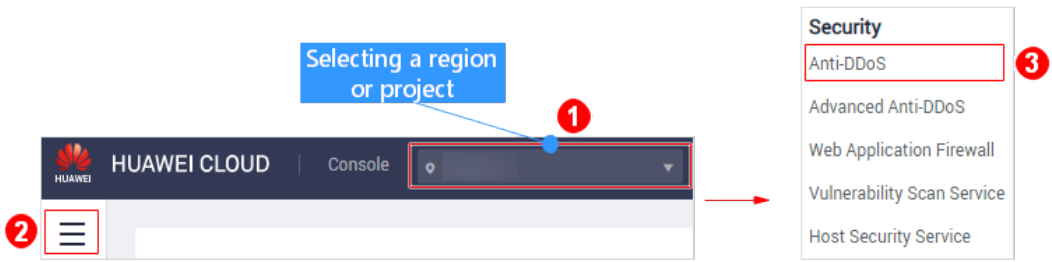
Procedure

Step 1 Log in to the management console.

Step 2 Click in the upper left corner of the management console and select the region and project.

Step 3 click . Under **Security**, choose **Anti-DDoS**.

Figure 3-1 Anti-DDoS



Step 4 On the **Anti-DDoS** page, click the **Alarm Notifications** tab and configure alarm notification. For details about the parameter settings, see **Figure 3-2**.

Figure 3-2 Configuring alarm notifications

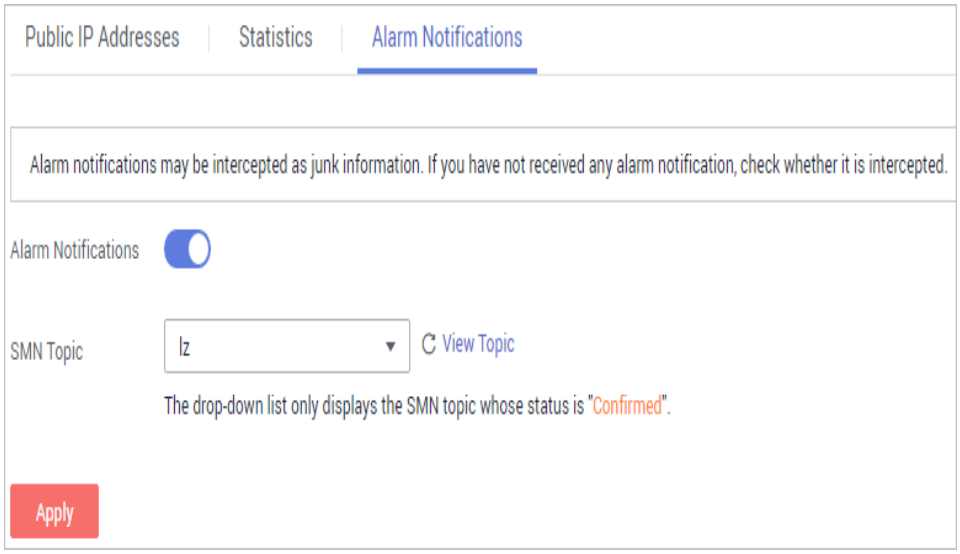


Table 3-1 Configuring alarm notifications

Parameter	Description	Example Value
Alarm Notifications	Indicates whether the alarm notification function is enabled. There are two values: • : enabled • : disabled If the function is in the disabled state, click to set it to .	
SMN Topic	You can select an existing topic or click **View Topic** to create a topic. For more information about SMN topics, see **Simple Message Notification User Guide**.	N/A

Step 5 Click **Apply** to enable alarm notification.

----End

4 Configuring an Anti-DDoS Protection Policy

Scenarios

You can adjust your Anti-DDoS protection policy after Anti-DDoS is enabled.

Prerequisites

You have obtained a username and password for logging in to the management console.

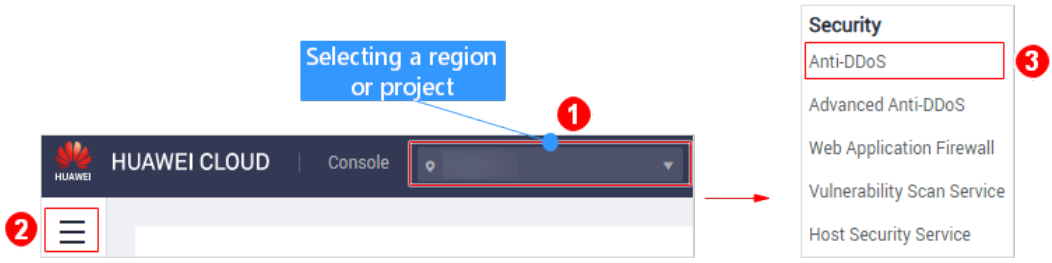
Procedure

Step 1 Log in to the management console.

Step 2 Click in the upper left corner of the management console and select the region and project.

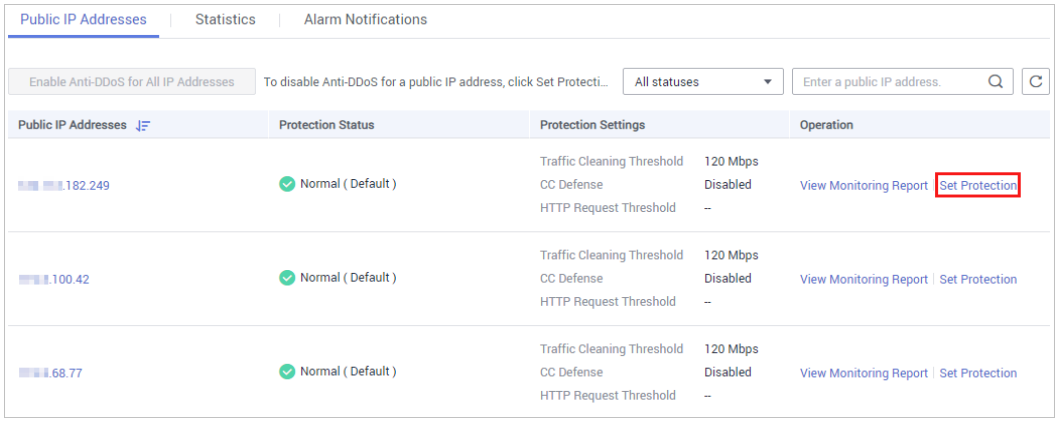
Step 3 click . Under **Security**, choose **Anti-DDoS**.

Figure 4-1 Anti-DDoS



Step 4 Click the **Public IP Addresses** tab, locate the row that contains the IP address for which you want to set protection, and click **Set Protection** in the **Operation** column.

Figure 4-2 Protection settings



Step 5 In the **Set Protection** dialog box, modify desired parameters. **Figure 4-3** describes the parameters.

Figure 4-3 Protection settings

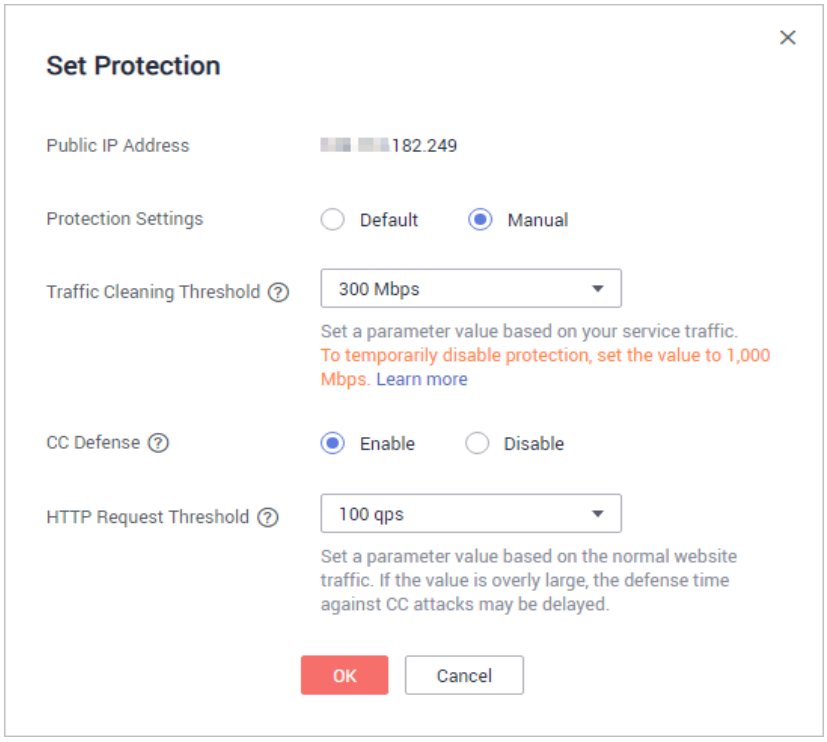


Table 4-1 Parameter description

Parameter	Description
Protection settings	• **Default**: In this mode, **Traffic Cleaning Threshold** is fixed at **120 Mbps**. When the service UDP traffic is greater than 120 Mbps or the TCP traffic is greater than 35,000 pps, traffic scrubbing is triggered and Anti-DDoS will automatically intercept the attack traffic. • **Manual**: In this mode, you can set the value of **Traffic Cleaning Threshold** based on your service needs and enable **CC Defense**. **NOTE** • Mbps = Mbit/s (short for 1,000,000 bit/s). It is a unit of transmission rate and refers to the number of bits transmitted per second. • PPS, short for Packets Per Second, is a measure of throughput for network devices. It means the number of packets sent per second.
Traffic Cleaning Threshold	Anti-DDoS scrubs traffic when detecting that the incoming traffic of an IP address exceeds the threshold. • When **Protection Settings** is set to **Default**, the value of **Traffic Cleaning Threshold** is **120 Mbps** by default. • When **Protection Settings** is set to **Manual**, the value of **Traffic Cleaning Threshold** can be set based on your service needs. You are advised to set the threshold to a value closest to the purchased bandwidth but not greater than the purchased bandwidth. **NOTE** If service traffic triggers scrubbing, only attack traffic is intercepted. If service traffic does not trigger scrubbing, no traffic is intercepted. Set this parameter based on the actual service access traffic. You are advised to set a value closest to, but not exceeding, the purchased bandwidth.
CC Defense	• **Disable**: disables the defense. • **Enable**: enables the defense. **NOTE** Challenge Collapsar (CC) defense is available only for clients supporting the full HTTP protocol stack because CC defense works in redirection or redirection+verification code mode. If your client does not support the full HTTP protocol stack, you are advised to disable CC defense.

Parameter	Description
HTTP Request Threshold	This parameter is required only when **CC Defense** is set to **Enable**. The unit is qps (short for queries per second). QPS is a common measure of the amount of search traffic an information retrieval system, such as a search engine or a database, receives during one second. This parameter is used to defend against a large number of malicious requests targeting websites. Defense against CC attacks, which aim to exhaust server resources by sending specially crafted GET or POST requests, is triggered when the HTTP request rate on a site reaches the selected value. In the EIP address protection, the maximum recommended value is **5000**. In ELB protection, the value can be larger. You are advised to set this parameter to the maximum number of HTTP requests that can be processed by the deployed service. Anti-DDoS will automatically scrub traffic if detecting that the total number of requests exceeds the configured HTTP request threshold. If the value is too large, CC defense will not be triggered promptly. ● If the actual HTTP request rate is smaller than the configured value, the deployed service is able to process all HTTP requests, and Anti-DDoS does not need to be involved. ● If the actual HTTP request rate is greater than or equal to the configured value, Anti-DDoS triggers CC defense to analyze and check each request, which affects responses to normal requests.

Step 6 Click **OK** to save the settings.

----End

5 Viewing a Monitoring Report

Scenarios

This section describes how to view the monitoring report of a public IP address. This report includes the protection status, protection settings, and the last 24 hours' traffic and anomalies.

Prerequisites

You have obtained a username and password for logging in to the management console.

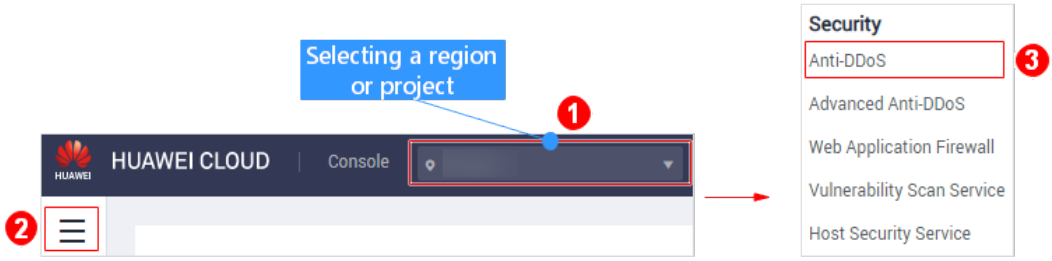
Procedure

Step 1 Log in to the management console.

Step 2 Click in the upper left corner of the management console and select the region and project.

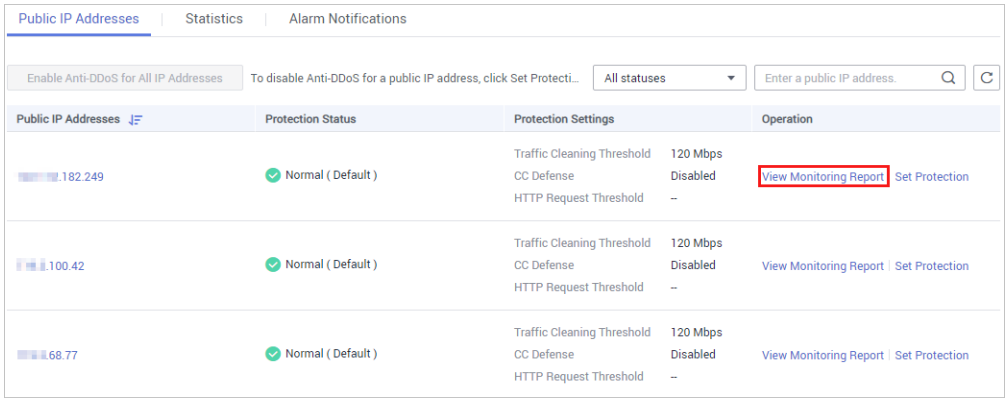
Step 3 click . Under **Security**, choose **Anti-DDoS**.

Figure 5-1 Anti-DDoS



Step 4 Click the **Public IP Addresses** tab, locate the row that contains the IP address for which you want to view its monitoring report, and click **View Monitoring Report**.

Figure 5-2 Viewing a monitoring report



Step 5 On the **Monitoring Report** page, view monitoring details about the public IP address.

- You can view information such as the current defense status, current defense configurations, traffic within 24 hours, and abnormalities within 24 hours.
- A 24-hour defense traffic chart is generated from data points taken in five-minute intervals. It includes the following information:
  - **Traffic (Kbps)** displays the traffic status of the selected ECS, including the incoming attack traffic and normal traffic.
  - **Packets per Second (pps)** displays the packet rate of the selected ECS, including the attack packet rate and normal incoming packet rate.
- The attack event list within one day records DDoS attacks on the ECS within one day, including cleaning events and black hole events.

Figure 5-3 Viewing a traffic monitoring report

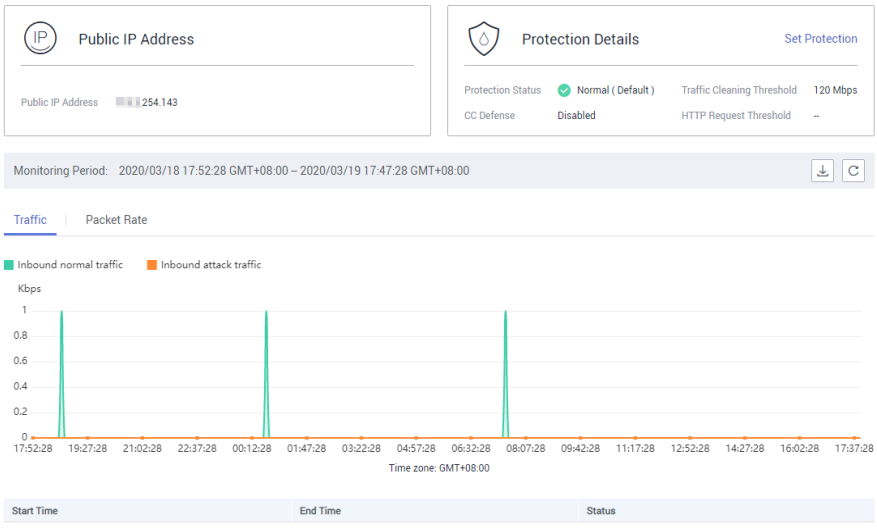
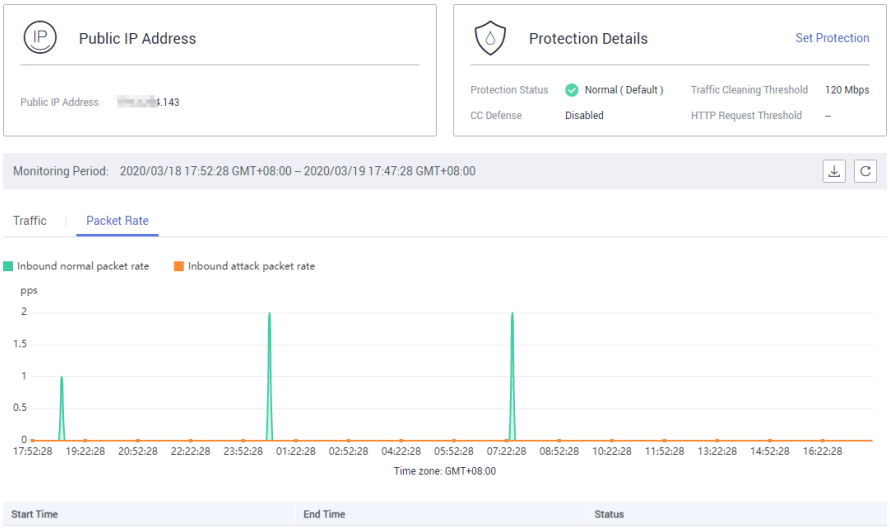


Figure 5-4 Viewing a packet rate monitoring report



NOTE

- Click  to download monitoring reports to view monitoring details about the public IP address.
- On the traffic monitoring report page, click Inbound attack traffic or Inbound normal traffic to view details about the **Inbound attack traffic** or **Inbound normal traffic.**
- On the packet rate monitoring report page, click Inbound attack packet rate or Inbound normal packet rate to view details about the **Inbound attack packet rate** and **Inbound normal packet rate**.

----End

6 Viewing an Interception Report

Scenarios

This section describes how to view the protection statistics, including the traffic cleaning frequency, cleaned traffic amount, weekly top 10 attacked public IP addresses, and total number of intercepted attacks of all public IP addresses of a user.

Prerequisites

You have obtained a username and password for logging in to the management console.

Procedure

Step 1 Log in to the management console.

Step 2 Click in the upper left corner of the management console and select the region and project.

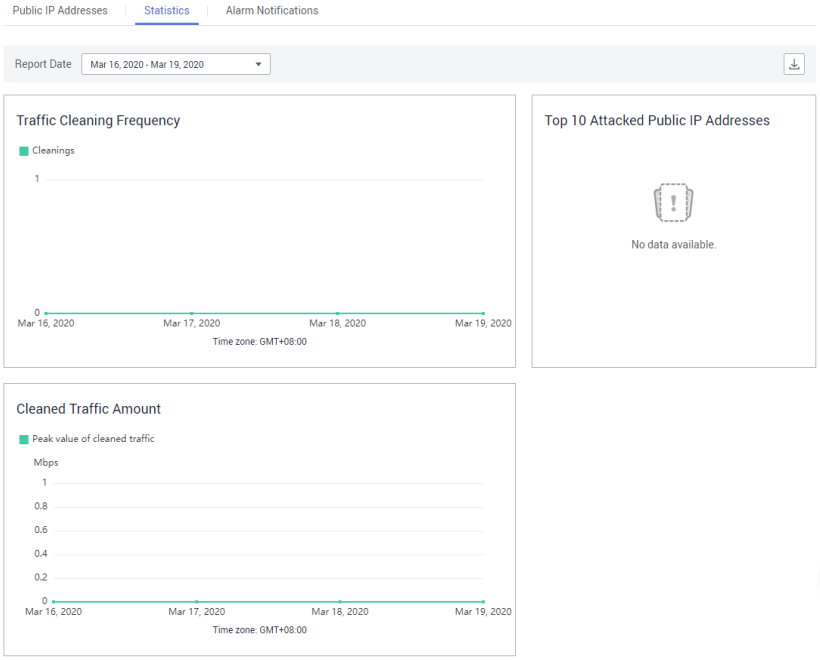
Step 3 click . Under **Security**, choose **Anti-DDoS**.

Figure 6-1 Anti-DDoS

Step 4 Click the **Statistics** tab to view the protection statistics about all public IP addresses.

You can view the weekly security report generated on a specific date. Currently, statistics, including the number of cleaning times, cleaned traffic, weekly top 10 most frequently attacked public IP addresses, and total number of intercepted attacks over the past four weeks can be queried.

Figure 6-2 Viewing an interception report



NOTE

Click to download interception reports to view defense statistics of a time range.

----End

A Change History

Released On	Description
2020-08-25	This is the seventh official release. Added **Setting a Default Protection Policy for Newly Purchased Public IP Addresses**.
2020-04-08	This is the sixth official release. Updated some screenshots.
2020-01-07	This is the fifth official release. Added parameter descriptions in section **Configuring an Anti-DDoS Protection Policy**.
2019-12-16	This is the fourth official release. Modified the domain name of HUAWEI CLOUD international website.
2019-11-21	This is the third official release. The figure titles are added to the figures, and documents' publish path IDs are fixed.
2018-01-19	This is the second official release. Optimized the alarm notification page in section **Enabling Alarm Notification**.
2017-12-31	This is the first official release.

