

Anti-DDoS Advanced

Troubleshooting

Product Documentation



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Troubleshooting

How Do I Fix a 502 Bad Gateway Error

Last updated : 2022-01-23 14:30:16

Error Description

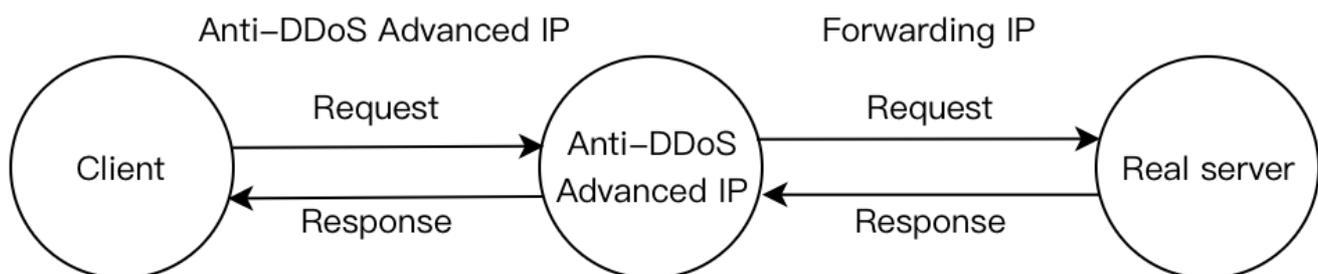
A 502 Bad Gateway error occurs when you are using Anti-DDoS Advanced, as shown below:

502 Bad Gateway

nginx/1.18.0

Common Causes

The following figure shows how the application traffic flows.



Cause 1: The forwarding IP is blocked by the real server or limited to a specific rate

After you connect to Anti-DDoS Advanced, the instance IP sends received access requests to the real server using the forwarding IP instead of client IP and thus the real server IP becomes invisible to the client. However, the number of forwarding IPs is insufficient to handle volumes of access requests.

If the real server is configured with protection policies, it is possible to trigger corresponding policies to limit the rate of the forwarding IP and even block it.

Cause 2: The real server works exceptionally, causing a response timeout

Possible reasons:

1. The real server IP is not connected to Anti-DDoS Advanced and crippled by malicious attacks.
2. A failure occurs to the data center of the real server.
3. High memory and CPU usage lead to weakening performance.
4. Web programs such as Apache and Nginx are abnormal.
5. The forwarding linkage between the public network and the real server is faulty.

Cause 3: There is network jitter or a faulty linkage

The poor public network quality affects the stability of application access and a 502 error is returned.

Solutions

Solution to [cause 1](#)

Check whether the access of real server and Anti-DDoS Advanced instance is normal.

If only the real server works normally, the access of Anti-DDoS Advanced instance is blocked by the real server or is rate-limited. We recommend adding the instance to your allowlist.

For more details, see [Instructions for cause 1](#).

Solution to [cause 2](#)

Modify the local host resolution result to the real server to check whether the real server works normally. Firstly, edit the hosts file and ensure that the hosts binding has taken effect. Then connect to your domain name to check whether the real server can be accessed normally. If the access fails, perform the following steps:

1. Protect the real server, as instructed in [Measure 1](#).
2. Ask for technical support to check and repair the data center, as instructed in [Measure 2](#).
3. Check whether the web service is normal and restore it if it works exceptionally, as instructed in [Measure 3](#).
4. Check whether performance metrics including the server process occupancy and memory usage are normal, and restore it if it works exceptionally, as instructed in [Measure 4](#).
5. Check the network level for troubleshooting. Alternatively, check the linkage status or change to another linkage.
You can refer to [Measure 5](#).

For more details, see [Instructions for cause 2](#).

Solution to [cause 3](#)

Check whether there is a linkage failure and contact the network service provider for repair.

For more details, see [Instructions for cause 3](#).

Instructions

Instructions for cause 1

Accept the Anti-DDoS Advanced forwarding IP range to access the firewall and host security software. The following takes the firewall of CentOS 6.5 as an example.

1. Run the command to check the Linux firewall status.

```
service iptables status
```

If there are no rules displayed for Chain INPUT, Chain FORWARD and Chain OUTPUT in the console, the firewall is not yet enabled.

service iptables status

```
[root@localhost ~]# service iptables status
Table: filter
Chain INPUT (policy ACCEPT)
num target      prot opt source                destination

Chain FORWARD (policy ACCEPT)
num target      prot opt source                destination

Chain OUTPUT (policy ACCEPT)
num target      prot opt source                destination
```

2. Run the command to check the firewall configuration file.

```
cat /etc/sysconfig/iptables
```

Make sure that you have completed the blacklist and allowlist configuration before you enable the firewall.

3. Run the command to restart the firewall.

```
service iptables start
```

service iptables start

```
[root@localhost ~]# service iptables start
iptables: Applying firewall rules: [ OK ]
```

4. Run the command to check the firewall status again.

```
service iptables status
```

If there are rules displayed for Chain INPUT, Chain FORWARD and Chain OUTPUT in the console, the firewall is enabled successfully.

```
[root@localhost ~]# service iptables status
Table: filter
Chain INPUT (policy ACCEPT)
num target      prot opt source                destination              state
1  ACCEPT        all  --  0.0.0.0/0              0.0.0.0/0                state RELATED,
ESTABLISHED
2  ACCEPT        icmp --  0.0.0.0/0              0.0.0.0/0
3  ACCEPT        all  --  0.0.0.0/0              0.0.0.0/0
4  ACCEPT        tcp  --  0.0.0.0/0              0.0.0.0/0                state NEW tcp
dpt:22
5  REJECT        all  --  0.0.0.0/0              0.0.0.0/0                reject-with ic
mp-host-prohibited

Chain FORWARD (policy ACCEPT)
num target      prot opt source                destination              reject-with ic
1  REJECT        all  --  0.0.0.0/0              0.0.0.0/0                reject-with ic
mp-host-prohibited

Chain OUTPUT (policy ACCEPT)
num target      prot opt source                destination
```

5. Run the command to set the IP allowlist and allow the forwarding IP range to access the firewall.

```
Iptables -A INPUT -s Forwarding IP -j ACCEPT
```

6. Run the command to check whether the configured allowlist is added to the firewall setting.

```
iptables -nL --line-number
```

The allowlist is added if there are firewall rules in the output.

7. Run the command to save the firewall setting.

```
service iptables save
```

```
[root@localhost ~]# service iptables save
iptables: Saving firewall rules to /etc/sysconfig/iptables:[ OK ]
```

8. Run the command to restart the firewall to have the configuration take effect.

```
service iptables restart
```

```
[root@localhost ~]# service iptables restart
iptables: Setting chains to policy ACCEPT: filter [ OK ]
iptables: Flushing firewall rules: [ OK ]
iptables: Unloading modules: [ OK ]
iptables: Applying firewall rules: [ OK ]
```

Instructions for cause 2

Modify the local host resolution result to the real server to check whether the real server is normal. Firstly, modify the local hosts file. The specific operations are as follows:

1. Edit the local hosts file to allow the local request to access the real server. The following uses the Windows OS as an example to configure the local hosts file:

Open the `hosts` file in `C:\Windows\System32\drivers\etc`

For example, if the real server IP is `10.1.1.1` and the domain name is `www.qqq.com`, add:

```
10.1.1.1 www.qqq.com
```

Save the hosts file. Run the ping command on the protected domain name in the local computer.

When the resolved IP address is the real server IP address bound in the hosts file, the local hosts file is valid. If the real server IP is not resolved, run `ipconfig /flushdns` in the Windows Command Prompt to refresh the local DNS cache.

2. After the binding has taken effect, check whether the access of the real server is normal using the domain name. If it cannot be accessed normally, the following measures can be taken.

Measure 1: Protect the real server

Check whether the real server has a significant increase in the traffic and request volume, and the monitoring data from the Anti-DDoS Advanced console. The following describes how to check the real server traffic volume when the

OS is CentOS.

1. Check the traffic usage of a Linux server using iftop:

Run **the** command `iftop [-i interface]`. The parameter **"interface"** indicates **the** API **name**, such **as** `eth0` **and** `eth1`.

The output is as follows:

	25.0Kb	50.0Kb	75.0Kb	100Kb	125Kb
n1m7l3ilyinf41 => 172.31.0.5	97.3Kb	34.1Kb	29.7Kb		
<=>	18.9Kb	16.2Kb	32.5Kb		
n1m7l3ilyinf41 => 172.31.0.6	8.70Kb	8.06Kb	8.07Kb		
<=>	8.41Kb	7.73Kb	8.67Kb		
n1m7l3ilyinf41 => 172.31.0.9	1.55Kb	1.55Kb	1.55Kb		
<=>	9.50Kb	9.50Kb	9.50Kb		
n1m7l3ilyinf41 => 211.156.178.85	1.48Kb	1.66Kb	1.94Kb		
<=>	160b	160b	178b		
n1m7l3ilyinf41 => 172.31.0.7	0b	194b	242b		
<=>	0b	110b	138b		
<hr/>					
TX:	cumm: 279KB	peak: 109Kb	rates: 109Kb	45.6Kb	41.5Kb
RX:	310KB	206Kb	37.0Kb	33.7Kb	50.9Kb
TOTAL:	589KB	311Kb	146Kb	79.3Kb	92.5Kb

Output description:

- The bandwidth usage is displayed at the top.
- The external connection list is at the middle. The list records IPs that are connecting to the local network.
- On the right of the list is real-time traffic information, which are the average traffic of 2 seconds, 10 seconds, and 40 seconds when the real server is accessed.
- `=>` means sending data and `<=>` means receiving data.
- The bottom three lines:
 - In the first column, `TX` stands for sending traffic, `RX` for receiving traffic, and `TOTAL` for total traffic.
 - In the second column, `cumm` stands for the total traffic in the first column.
 - In the third column, `peak` stands for peak traffic in the first column.
 - In the fourth column, `rates` stands for the average traffic for each period of 2 seconds, 10 seconds, and 40 seconds.

2. To know how to view business traffic on the Anti-DDoS Advanced console, refer to [Viewing Business Traffic Details](#). If the real server is attacked by a large amount of traffic without any exceptions in the Anti-DDoS Advanced console, the attacks have bypassed the instance successfully. You can refer to [In Case of Real Server IP Exposed] (<https://www.tencentcloud.com/document/product/297/15568>) to deal with this situation.

Measure 2: Ask for technical support on data center

You can check whether the data center has physical hardware failures, such as failures with power, network card, drive, memory, and wiring.

Measure 3: Check the web service

Check the related monitoring of the origin server, CPU usage, memory usage, and bandwidth usage.

Note :

- Normally, if the usage of CPU or memory exceeds 90% for a long time, the web service is in abnormal status.
- Bandwidth usage needs to be compared with the business process occupancy during normal business periods and check if there is a significant increase. For more details, see [CVM Bandwidth Utilization Is Too High](#).

If there is an exception, please contact technical support for further troubleshooting.

Measure 4: Check the server performance parameters

Self-check the web program status. Run the `ps -C nginx -o pid` command to check whether the server's nginx process is running normally.

If there is an exception, please contact technical support for further troubleshooting.

Measure 5: Check the network level or the linkage

Run a self-check on the linkage quality, linkage connectivity, and forwarding status of intermediate network equipment between the public network and the real server.

Instructions for cause 3

Check and monitor the public network quality of real server and the Anti-DDoS Advanced instance using the Tencent Cloud website monitoring platform.

If the public network is not working well, contact the service provider for assistance.

Error: The domain name does not have an ICP filing

Last updated : 2021-12-13 17:06:46

Error Description

The system prompted that my domain name had no ICP filing when I tried to connect it to Anti-DDoS Advanced.



 The domain name does not have an ICP filing

Possible Causes

The domain name does not have an ICP filing from the MIIT

Pursuant to the State Council Decree No.292 "Administrative Measures for Internet Information Services" and the "Measures for the Archival Administration of Non-operational Internet Information Services", China implements a licensing system for operational internet information services and filing system for non-operational internet information services. Internet information services shall not be provided before the license or filing is obtained; otherwise, it would be illegal.

Therefore, any website providing services in the Chinese mainland must first apply for ICP filing, and the website can be launched for access only after the ICP filing number is obtained from the competent communications administration.

The ICP filing information was not synced in time

If your domain name has been successfully filed with the MIIT, but the system prompted that the domain name has no ICP filing, it may be because that the ICP filing information of the MIIT has not been synced to the Tencent Cloud website ICP filing system.

Troubleshooting Procedure

The domain name does not have an ICP filing from the MIIT

You can use the Tencent Cloud website ICP filing service for application. After the application is successful and the ICP filing number is obtained from the competent communications administration, your domain name can be connected to Anti-DDoS Advanced.

Note :

If you have already applied for an ICP filing at another access provider, please consult the provider accordingly.

The ICP filing information was not synced in time

After you get your ICP filing, it takes some time to sync the information from the MIIT to Tencent Cloud ICP filing management system. Please wait 24 hours and try again.