Elastic Load Balance

Best Practices

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Contents

1 Locating an Unhealthy Backend Server Using Access Logs.....1
2 Viewing Traffic Usage..... 4

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1 Locating an Unhealthy Backend Server Using Access Logs

Scenarios

With LTS, you can view logs of requests to shared load balancers at Layer 7 and analyze response status codes to quickly locate backend servers that are not healthy.

Preparations

- You have created a shared load balancer that can work at Layer 7.
- You have enabled LTS.

Creating a Log Group

1. Log in to the management console.
2. In the upper left corner of the page, click  and select the desired region and project.

   Select **CN North-Beijing1** as the region.
3. Click **Service List**. Under **Management & Deployment**, click **Log Tank Service**.
4. In the navigation pane on the left, choose **Log Management**.
5. On the displayed page, click **Create Log Group**. In the displayed dialog box, enter a name for the log group.

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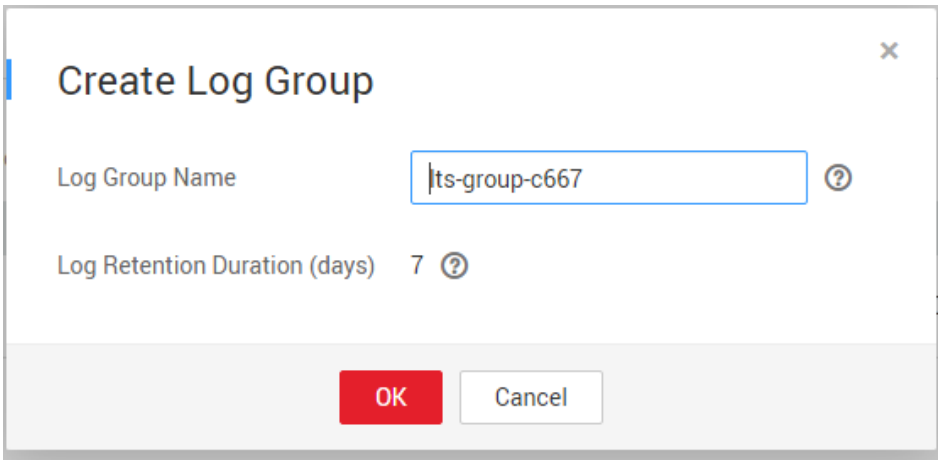
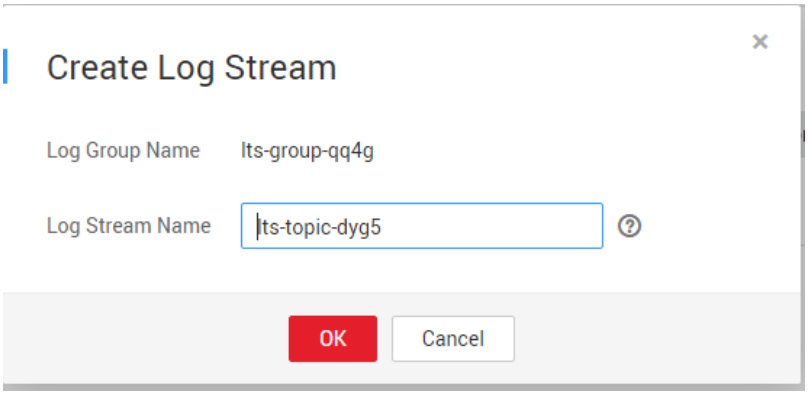


6. Click **OK**.

Creating a Log Stream

1. Locate the created log group and click its name.
2. Click **Create Log Stream**. In the displayed dialog box, enter a name for the log stream.



3. Click **OK**.

Configuring Access Logging

1. Click **Service List**. Under **Network**, click **Elastic Load Balance**.
2. Locate the load balancer and click its name.
3. Under **Access Logs**, click **Configure Access Log**.
4. Enable access logging and select the created log group and log stream.
5. Click **OK**.

NOTICE

The log group must be in the same region as the load balancer.

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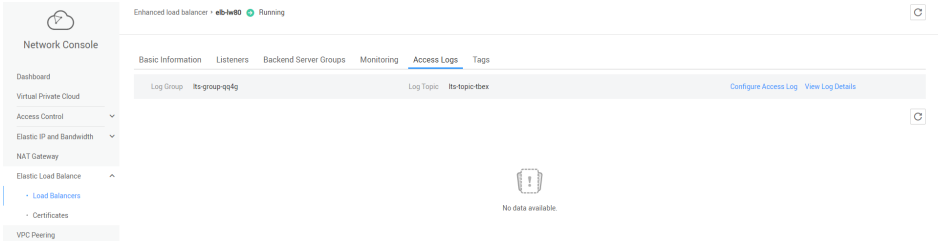
Viewing Access Logs

- On the ELB console, click the name of the load balancer and click **Access Logs** to view logs.



- On the LTS console, go to the page that displays all log streams, locate the target log stream and click **View** or **Search** in the **Operation** column.



Locating the Server

The following is a log that indicates the exception:

```
1554944564.344 - [2019-04-11T09:02:44+08:00] elb 10.133.251.171:51527 500 "GET http://10.154.73.58/lrange/guestbook HTTP/1.1" 411 3726 3545 19.028 "500" "0.009" "19.028" "19.028" "100.84.0.82:3000" "Mozilla/5.0 (Windows NT 6.1; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/73.0.3683.103 Safari/537.36" "http://10.154.73.58:5971/" "-" loadbalancer_ed0f790b-e194-4657-9f97-53426227099e listener_b21dd0a9-690a-4945-950e-b134095c6bd9 6b6aaf84d72b40fcb2d2b9b28f6a0b83
```

Log analysis

At 09:02:44 (UTC+08:00) of April 11, 2019, the load balancer receives a GET/HTTP/1.1 request from the client (whose IP address and port number are 10.133.251.171 and 51527 respectively) and then routes the request to a backend server (which uses 100.84.0.82 and port 3000 to receive requests). The load balancer then receive a 500 status code from the backend server and returns the status code to the client.

For details about the fields in the logs, see **Access Logging**.

Analysis result

The backend server fails to respond to the request.

Troubleshoot the fault by referring to **backend server overview**.

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2 Viewing Traffic Usage

Scenarios

In live video broadcasting, traffic often increases suddenly, which make the service unstable. To respond to this, most live video platforms use ELB to distribute traffic. By working with Cloud Eye, ELB allows you to monitor the traffic usage in real time, especially for public network load balancers. You can view the traffic consumed by the EIPs bound to load balancers to better balance your application workloads.

Prerequisites

Load balancers are running properly.

If associated backend servers are stopped, become faulty, or deleted, you cannot view the metrics on the Cloud Eye console.

Viewing Traffic Usage of the Bound EIP

1. Log in to the management console.
2. In the upper left corner of the page, click and select the desired region and project.

   Select **CN North-Beijing1** as the region.
3. Click **Service List**. Under **Network**, click **Virtual Private Cloud**.
4. In the navigation pane on the left, choose **Elastic IP and Bandwidth** > **EIPs**.
5. Locate the EIP bound to the load balancer and click its name. On the details page, you can view the data of the last 1 hour, last 3 hours, or last 12 hours.

Figure 2-1 EIP traffic usage

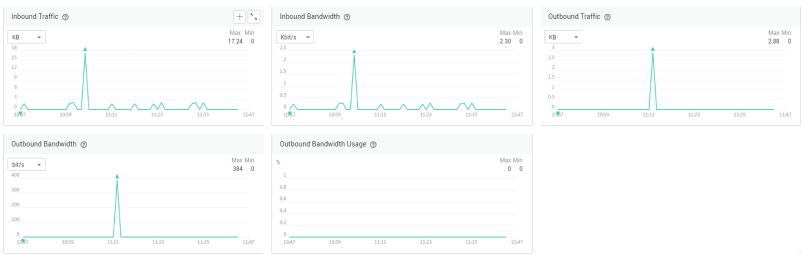

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Table 2-1 EIP and bandwidth metrics

Metric	Meaning	Value Range	Monitored Object	Monitoring Period (Raw Data)
Outbound Bandwidth (originally named "Upstream Bandwidth")	Network rate of outbound traffic	≥ 0 bits/s	Bandwidth or EIP	1 minute
Inbound Bandwidth (originally named "Downstream Bandwidth")	Network rate of inbound traffic	≥ 0 bits/s	Bandwidth or EIP	1 minute
Outbound Bandwidth Usage	Usage of outbound bandwidth in the unit of percent.	0–100%	Bandwidth or EIP	1 minute
Outbound Traffic (originally named "Upstream Traffic")	Network traffic going out of the cloud platform	≥ 0 bytes	Bandwidth or EIP	1 minute
Inbound Traffic (originally named "Downstream Traffic")	Network traffic going into the cloud platform	≥ 0 bytes	Bandwidth or EIP	1 minute

Viewing Load Balancer Traffic Metrics

1. Log in to the management console.
2. In the upper left corner of the page, click  and select the desired region and project.

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Select **CN North-Beijing1** as the region.

3. Click **Service List**. Under **Network**, click **Elastic Load Balance**.
4. Locate the load balancer and click its name.
5. Click the **Monitoring** tab, select load balancer for **Dimension**, and view the graphs of inbound and outbound rates.

   You can view the data of the last 1, 3, or 12 hours. For more information, see **ELB metrics**.

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