Elastic Load Balance

Best Practices

 Issue
 01

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Huawei Technologies Co., Ltd.

- Address: Huawei Industrial Base Bantian, Longgang Shenzhen 518129 People's Republic of China Website: https://www.huawei.com
- Email: <u>support@huawei.com</u>

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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.

The associated backend servers are running normally and are not deleted or in the stopped or faulty state.

Viewing Traffic Usage of the Bound EIP

- 1. Log in to the management console.
- 2. In the upper left corner of the page, click $^{\textcircled{0}}$ and select the desired region and project.
- 3. Click Service List. Under Networking, 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 **Bandwidth** page, you can view the data for the last 1, 3, 12 hours, last day, or last 7 days.

Figure 1-1 EIP traffic usage

All graphs are based on raw data. View details		
Inbound Bandwidth ⑦	Inbound Bandwidth Usage ⑦	Inbound Traffic ③
bit/s • Max Min	Max Min	byte • Max Min
0.9	0.9	0.9
0.6	0.6	0.6
0.3	0.3	0.3
0	0	0
08:00 08:12 08:24 08:36 08:48 09:00	08:00 08:12 08:24 08:36 08:48 09:00	08:00 08:12 08:24 08:36 08:48 09:00
Outbound Bandwidth ⑦	Outbound Bandwidth Usage ⑦	Outbound Traffic ⑦
bit/s • Max Min	% Max Min	byte - Max Min
0.9	0.9	0.9
0.6	0.6	0.6
No monitoring data available for this period of time. 0.3	No monitoring data available for this period of time. 0.3	No monitoring data available for this period of time. 0.3
0	0	0
08:00 08:12 08:24 08:36 08:48 09:00	08:00 08:12 08:24 08:36 08:48 09:00	08:00 08:12 08:24 08:36 08:48 09:00

Table 1-1 EIP and bandwidth metrics

Metric	Meaning	Value Range	Monitored Object	Monitor ing Period (Raw Data)
Outbound Bandwidt h (originally named "Upstrea m Bandwidt h")	Network rate of outbound traffic	≥ 0 bits/s	Bandwidth or EIP	1 minute
Inbound Bandwidt h (originally named "Downstr eam Bandwidt h")	Network rate of inbound traffic	≥ 0 bits/s	Bandwidth or EIP	1 minute
Outbound Bandwidt h Usage	Usage of outbound bandwidth in percentage.	0–100%	Bandwidth or EIP	1 minute
Inbound Bandwidt h Usage	Usage of inbound bandwidth in the unit of percent.	0-100%	Bandwidth or EIP	1 minute

Metric	Meaning	Value Range	Monitored Object	Monitor ing Period (Raw Data)
Outbound Traffic (originally named "Upstrea m Traffic")	Network traffic going out of the cloud platform	≥ 0 bytes	Bandwidth or EIP	1 minute
Inbound Traffic (originally named "Downstr eam 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 $^{\textcircled{0}}$ and select the desired region and project.
- 3. Click Service List. Under Networking, 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 data from the last 1, 3, 12 hours, last day, or the last 7 days. For details, see **ELB Metrics**.

2 Routing Traffic to Backend Servers in Different VPCs

2.1 Overview

Scenarios

You have servers both in VPCs and your on-premises data center and want load balancers to distribute incoming traffic across these servers.

This section describes how to use a load balancer to route incoming traffic across cloud and on-premises servers.



Figure 2-1 Routing traffic across cloud and on-premises servers

Solution

Dedicated load balancers can satisfy your needs. You can enable **IP as a Backend** when creating a dedicated load balancer and associate on-premises servers with this dedicated load balancer using their IP addresses.

As shown in Figure 2-2, ELB can realize hybrid load balancing.

• You can associate the servers in the same VPC as the load balancer no matter whether you enable **IP as a Backend**.

- If you enable **IP as a Backend**:
 - You can associate on-premises servers with the load balancer after the on-premises data center is connected to the cloud through Direct Connect or VPN.
 - You can also associate the servers in other VPCs different from the load balancer after the VPCs are connected to the VPC where the load balancer is running over VPC peering connections.
 - You can associate backend servers in the same VPC where the load balancer is running.



Figure 2-2 Associating servers with the load balancer

Advantages

You can add servers in the VPC where the load balancer is created, in a different VPC, or in an on-premises data center, by using private IP addresses of the servers to the backend server group of the load balancer. In this way, incoming traffic can be flexibly distributed to cloud and on-premises servers for hybrid load balancing.

- You can add backend servers in the same VPC as the load balancer.
- You can add backend servers in a VPC that is not the VPC where the load balancer is running by establishing a VPC peering connection between the two VPCs.
- You can add backend servers in your on-premises data center with the load balancer by connecting your on-premises data center to the cloud through Direct Connect or VPN.

Restrictions and Limitations

When you add IP as backend servers, note the following:

- If you do not enable the function when you create a load balancer, you can still enable it on the **Basic Information** page of the load balancer.
- IP as backend servers must use IPv4 addresses.
- IP as backend servers cannot use public IP addresses or IP addresses from the VPC where the load balancer works. Otherwise, requests cannot be routed to backend servers.

- If you enable **IP as a Backend** for a dedicated load balancer, you can add only TCP, HTTP, and HTTPS listeners to the load balancer.
- The subnet where the load balancer works must have at least 16 IP addresses. Otherwise, IP as backend servers cannot be added. You can add more subnets for more IP addresses on the **Basic Information** page of the load balancer.
- Security group rules of IP as backend servers must allow traffic from the subnet of the load balancer. Otherwise, health checks will fail.
- **IP as a Backend** cannot be disabled after it is enabled.
- Up to 492 backend servers (including common backend servers and IP as backend servers) can be associated with a listener.

2.2 Routing Traffic to Backend Servers in Different VPCs from the Load Balancer

Scenarios

You can use ELB to route traffic to backend servers in two VPCs connected over a VPC peering connection.

Solution

- A dedicated load balancer named **ELB-Test** is running in **VPC-Test-01** (172.18.0.0/24).
- An ECS named ECS-Test is running in VPC-Test-02 (172.17.0.0/24).
- IP as a Backend is enabled for the dedicated load balancer ELB-Test, and ECS-Test in VPC-Test-02 (172.17.0.0/24) is added to the backend server group associated with ELB-Test.



Figure 2-3 Topology

Advantages

You can enable **IP as a Backend** for the dedicated load balancer to route incoming traffic to servers in different VPCs from the load balancer.

Resource and Cost Planning

The actual cost shown on the Huawei Cloud console is used.

Resource Type	Resource Name	Description	Quantit y
VPC	VPC-Test-01	The VPC where ELB-Test is running: 172.18.0.0/24	1
	VPC-Test-02	The VPC where ECS-Test is running: 172.17.0.0/24	1
VPC peering connection	Peering-Test	The connection that connects the VPC where ELB-Test is running and the VPC where ECS-Test is running Local VPC: 172.18.0.0/24 Peer VPC: 172.17.0.0/24	1
Route table	Route-VPC-Test-01	The route table of VPC-Test-01 Destination: 172.17.0.0/24	1
	Route-VPC-Test-02	The route table of VPC-Test-02 Destination: 172.18.0.0/24	1
ELB	ELB-Test	The dedicated load balancer	1
EIP	EIP-Test	The EIP (119.3.233.52) bound to ELB-Test	1
ECS	ECS-Test	The ECS works in VPC-Test-02 Private IP address: 172.17.0.145	1

Table 2-1 Resource planning

Operation Process



Figure 2-4 Process of associating servers in a VPC that is different from the dedicated load balancer

Creating VPCs

- **Step 1** Log in to the management console.
- **Step 2** Under **Networking**, select **Virtual Private Cloud**. On the **Virtual Private Cloud** page displayed, click **Create VPC**.
- **Step 3** Configure the parameters as follows and click **Create Now**. For details on how to create a VPC, see the *Virtual Private Cloud User Guide*.
 - Name: VPC-Test-01
 - IPv4 CIDR Block: 172.18.0.0/24
 - Configure other parameters as required.

Basic Information	
Region	♥ C ▼
	Regions are geographic areas isolated from each other. Resources are region-specific and ca latency and quick resource access, select the nearest region.
Name	VPC-Test-01
IPv4 CIDR Block	172 • 18 • 0 / 24 ▼ Recommended: 10.0.0.0/8.24 (Select) 172.16.0.0/12.24 (Select) 192.168.0.0/16.24 (Select)
Enterprise Project	longterm-EPSTest-
Advanced Settings 👻	Tag Description

Figure 2-5 Creating VPC-Test-01

Step 4 Repeat Step 2 and Step 3 to create the other VPC.

- Name: VPC-Test-02
- IPv4 CIDR Block: 172.17.0.0/24
- Configure other parameters as required.

Figure 2-6 Creating VPC-Test-02

Name	IPv4 CIDR Block	Status	Subnets	Route Ta	Servers	Enterprise Project	Operation
VPC-Test-01	172.18.0.0/24 (Primary CID)	Available	1	1	<i>ظ</i> 0	longterm-EPSTes	Edit CIDR Block Delete
VPC-Test-02	172.17.0.0/24 (Primary CIDF	Available	1	1	1 😾	longterm-EPSTes	Edit CIDR Block Delete
End							

Creating a VPC Peering Connection

- Step 1 In the navigation pane on the left, click VPC Peering.
- **Step 2** In the upper right corner, click **Create VPC Peering Connection**.
- **Step 3** Configure the parameters as follows and click **OK**. For details on how to create a VPC peering connection, see the *Virtual Private Cloud User Guide*.
 - Name: Peering-Test
 - Local VPC: VPC-Test-01
 - Peer VPC: VPC-Test-02
 - Configure other parameters as required.

Figure 2-7 Creating Peering-Test

Create VPC Peering Connection

Local VPC Settings			
* Name	Peering-Test		
* Local VPC	VPC-Test-01		• C
Local VPC CIDR Block	172.18.0.0/24		
Peer VPC Settings			
* Account	My account	Another account	0
* Peer Project	1		• ?
* Peer VPC	VPC-Test-02		•
Peer VPC CIDR Block	172.17.0.0/24		
Description			
			<i>//</i> 0/255
	OK Ca	ncel	
End			

Adding Routes for the VPC Peering Connection

- **Step 1** In the navigation pane on the left, click **Route Tables**.
- **Step 2** In the upper right corner, click **Create Route Table**.
- **Step 3** Configure the parameters as follows and click **OK**. For details on how to create a route table, see the *Virtual Private Cloud User Guide*.
 - Name: Route-VPC-Test-01
 - VPC: VPC-Test-01
 - Destination: 172.17.0.0/24
 - Next Hop Type: VPC peering connection
 - Next Hop: Peering-Test

Figure 2-8 Creating Route-VPC-Test-01

Create Route Table

* Name	Route-VPC-	Test-01			
* VPC	VPC-Test-01		• C		
	IPv4 CIDR Blo	ck: 172.18.0.0/24			
	You can create	e 0 more route tables for t	the selected VPC.		
Description			A		
Route Settings	5		0/255		
Destination (?)	Next Hop Type	Next Hop ⑦	Description	
Local		Local	Local	Default route that enables instance communication within a VPC	
172.17.0.0/24	1	VPC peering 💌	Peering-Test(9d408232-8739-4c36-a 💌		Ū
			(+) Add Route		
			OK Cancel		

Step 4 Repeat **3** and **4** to create the other route table.

- Name: Route-VPC-Test-02
- VPC: VPC-Test-02
- Destination: 172.18.0.0/24
- Next Hop Type: VPC peering connection
- Next Hop: Peering-Test

----End

Creating an ECS

Step 1 Under Computing, click Elastic Cloud Server.

Step 2 In the upper right corner, click **Buy ECS**.

Step 3 Select **VPC-Test-02** as the **VPC** and set **ECS Name** to **ECS-Test**. Configure other parameters as required. For details, see **Elastic Cloud Server User Guide**.

Figure 2-9 Buying ECS-Test

Elas	tic C	loud Server ⊘						Feedback	12 ECS No	ws	Duick Links	Buy ECS
	Star	Stop Reset Passv	word	More +							C	88 =
	Searched by Name by default.											© Q
		Name/ID ↓≣	Monit	AZ 🏹	Status 🖓	Specifications/	IP Address	Bill 🏹	Enter	Тад	Operation	
		ECS-Test d0f9878e-2a11-4016-aa0	8	AZ1	Running	2 vCPUs 4 Gi CentOS 7.6 64bit	172.17.0	Pay-p Creat	longte		Remote Login	More 👻

Step 4 Deploy Nginx on the ECS.

Figure 2-10 Deploying Nginx on ECS-Test

[montReco_tect_: / noiny_1 6 2	21# 11			Overvie	w Detection Help
total 628	C)# 11				
drwxr-xr-x 6 1001 1001 4096 Nov 5	5 10:27 auto				
-rw-rr 1 1001 1001 236013 Sep 16	6 2014 CHANGES			Clature	(ነን ማ ወ
-rw-rr 1 1001 1001 359556 Sep 16	6 2014 CHANGES.ru			Status	
drwxr-xr-x 2 1001 1001 4096 Nov 5	5 10:27 conf			Connection Status	Connorded
-rwxr-xr-x 1 1001 1001 2369 Sep 16	6 2014 configure			Connection Status	Connecieu
drwxr-xr-x 4 1001 1001 4096 Nov 5	5 10:27 contrib			Running Status	Running
drwxr-xr-x 2 1001 1001 4096 Nov 9	5 10:27 html			_	
-rw-rr 1 1001 1001 1397 Sep 10	6 Z014 LICENSE			CPU Usage (2 vCP	Us) 0.10%
-rw-rr 1 root root 40b Nov 3	5 10:43 Makerile				
drugg_vg_v 2 noot noot 4896 Nou 5	5 10.27 mail				
urwkr-kr-x J root root 400 hov 3	6 2014 README				
drugg-yg-y 8 1001 1001 4096 Nov 9	5 10:27 spe			Basic Information	1
IrontPecs-test-	21# cd conf				
[root@ecs-test-; conf]# /usi	r/local/webserver/nginx	/sbin/nginx		Usemame	root
[root@ecs-test-z	stat -anlp grep 80			10	100020- 0-44 404000
tcp 0 00.0.0.0:80	0.0.0:*	LISTEN	1534/nginx: maste	r ID	00196708-2811-4016-8806-
tcp 0 0 172.17.0.145:80	172.18.0.184:4	7648 ESTABLISHED	1535/nginx: worke	r	7a27ea8090d1
tcp 0 0 172.17.0.145:80	172.18.0.174:3	4830 ESTABLISHED	1535/nginx: worke	c	
tcp 0 0 172.17.0.145:80	172.18.0.13:51	544 ESTABLISHED	1535/nginx: worke	ECS Name	ECS-Test
tcp 0 0 172.17.0.145:80	172.18.0.248:30	6930 ESTABLISHED	1535/nginx: worke	EID	An ECS must have an EID bound to
unix 3 LJ STREAM	CUNNECTED 10074	1534/nginx: master		CIP .	All EGS must have all EIP bound to
unix 3 LJ STREAM	CUMMECTED 15080	942/master			support remote access. Bind EIP
UNIX J LJ SINEHM	CONNECTED 10073	1534/ng1nx: master			
unix 3 [] STREAM	CONNECTED 18872	1534 (nginy: master		Private IP Address	172.17.0.145
[rootPers-test-zu conf]#	CONTROLLED 10075	1991/ IIGTIK - INCELE			

----End

Buying a Dedicated Load Balancer and Adding an HTTP Listener and a Backend Server Group to the Load Balancer

- Step 1 Under Networking, click Elastic Load Balance.
- Step 2 In the upper right corner, click Buy Elastic Load Balancer.
- Step 3 Configure the parameters as follows. For details, see Elastic Load Balance User Guide.
 - Type: Dedicated
 - IP as a Backend: Enable
 - VPC: VPC-Test-01
 - Name: ELB-Test
 - Configure other parameters as required.

Figure 2-11 Buying ELB-Test

Loa	ad Balancers	0								7	Quick Link	Buy Elastic Lo	ad Balancer
	🗊 We've just laur	nched dedi	cated load ba	lancers that use excl	lusive resources, provide	guaranteed p	performance metric	s, and su	pport IPv6.	Try now			
Backend Server Status: 😗 7					All projects 👻	Name	v	ELB-Test			× Q	Search by Tag 😸	C
	Name	Status	т. 7	Specification	IP Address and Netw	vork	Listener (Fron	Bandw	idth Inf	Billing	Ente	Operation	
	ELB-Test	•	Dedicat	Network load bal elbv3.basic.2az Application load elbv3.basic.2az	VPC-Test-01 (VPC)		listener-7e8b	IPv4	1 Mbit Pay-per- By band	Pay-per-u: Create	long	Modify IPv4 Bandwidth	More 👻

Step 4 Add an HTTP listener and a backend server group to the dedicated load balancer. For details, see **Elastic Load Balance User Guide**.

Figure 2-12 HTTP listener and backend server group

< ELB-Test 🥑 Running					
Basic Information Listeners	Backen	nd Server Groups M	onitoring Acce	ss Logs Tags	
Add Listener					
listener-7e8b HTTP/80	ŪΞ	Basic Information	Forwarding Policies	Backend Server Groups	Tags
		Name	server_group-8040		ID
		Load Balancing Algorithm	Weighted round robin		Bac
		Sticky Session	Disabled		He
		IP Address Type	IPv4		

----End

Adding the ECS to the Backend Server Group

- Step 1 Locate the created dedicated load balancer and click its name ELB-Test.
- **Step 2** On the **Listeners** tab page, locate the HTTP listener added to the dedicated load balancer and click its name.
- **Step 3** In the **Backend Server Groups** tab on the right, click **IP as Backend Servers**.

Figure 2-13 IP as backend servers

Server_group Summary Backend Servers		C
Basked Baryan P as Basked barway Bagebreakty Network Interfaces Add Modify Wageb Tennove 'S Specify Star charts Tennove		C
🛛 Backand Saryar IP Addraus. Health Check Routh 🕥	Weight	Backend Port

- **Step 4** Click **Add IP as Backend Server**, configure the parameters, and click **OK**. For details, see **Elastic Load Balance User Guide**.
 - Backend Server IP Address: 172.17.0.145 (private IP address of ECS-Test)
 - Backend Port: the port enabled for Nginx on ECS-Test
 - Weight: Set this parameter as required.

Figure 2-14 Adding ECS-Test using its IP address

Add IP as Backend Server				
 Use the TOA module to obtain IP Ensure that the security group the access is not allowed, health che 	addresses of clients. Learn more at contains the backend servers has rules allow cks will fail.	ing access from the backe	and subnet of the load balancer. If	
Atch Add Ports OK You can add 495 more IP as Backend S	iervers. Increase quota			
Backend Server IP Address	Backend Port (?)	Weight ?	Operation	
0 . 0 . 0 . 0		1	Remove	
	+ Add Backend Server			
	OK Cancel			

----End

Verifying Traffic Routing

- **Step 1** Locate the dedicated load balancer **ELB-Test** and click **More** in the **Operation** column.
- **Step 2** Select **Bind IPv4 EIP** to bind an EIP (119.3.233.52) to **ELB-Test**.

Figure 2-15 EIP bound to the load balancer

tic Load Balance ලි මාචාගයෝ Flow								🕑 Feedback 🛛 🖗 Quick Links	Buy Elastic Load Balancer	
We've just launched dedicated load balancer	leve just launched dedicated load balancers that use exclusive resources, provide guaranteed performance metrics, and support IPv6. Try now X									
Renew Charge Billing Mode	Unsubscribe	Backend Serve	r Status							C [] ()
V Specify filter criteria.										Q
NameID	Monit	Status	Туре	Specifications	IP Address and Network	Listener (Frontend Protoc	Bandwidth Informa	Billing Mode	Enterprise Project	Operation
ELB_Test	A	😌 Running	Dedicated	Application load bala	(Private IPv4 ad VPC_Test_01 (VPC)	listener-HTTP(HTTP180)		Pay-per-use Created on May 29,	default	Add Listener More 🔻

Step 3 Enter **http://119.3.233.52/** in the address box of your browser to access the dedicated load balancer.

If the following page is displayed, the load balancer routes the request to **ECS-Test**, which processes the request and returns the requested page.



Figure 2-16 Verifying that the request is routed to ECS-Test

----End

2.3 Routing Traffic to Backend Servers in the Same VPC as the Load Balancer

Scenarios

You can route traffic to backend servers in the VPC where the load balancer is running.

Solution

- A dedicated load balancer ELB-Test is running in a VPC named vpc-peering • (10.1.0.0/16).
- The backend server **ECS-Test** is also running in vpc-peering (10.1.0.0/16). .
- ECS-Test needs to be added to the backend server group associated with ELB-• Test.



Figure 2-17 Adding a backend server in the same VPC as the load balancer

Advantages

You can add servers in the same VPC as the load balancer to the backend server group of the load balancer and then route incoming traffic to the servers.

Resource and Cost Planning

The actual cost shown on the Huawei Cloud console is used.

Resource Type	Resource Name	Description	Quantit y
VPC	vpc-peering	The VPC where ELB-Test and ECS-Test are running: 10.1.0.0/16	1
VPC peering connection	Peering-Test	The connection that connects the VPC where ELB-Test is running and other VPCs Local VPC : 10.1.0.0/16 Peer VPC : any VPC	1

 Table 2-2 Resource planning

Resource Type	Resource Name	Description	Quantit y
Route table	Route-VPC-Test-01	The route table of VPC-Test-01 Destination: 10.1.0.0/16	1
ELB	ELB-Test	The dedicated load balancer named ELB-Test Private IP address: 10.1.0.9	1
EIP	EIP-Test	The EIP (120.46.131.153) bound to ELB-Test	1
ECS	ECS-Test	The ECS works in vpc-peering Private IP address: 10.1.0.56	1

Operation Process

Figure 2-18 Process for adding backend servers in the same VPC as the load balancer



Creating a VPC

- **Step 1** Log in to the management console.
- **Step 2** Under **Networking**, select **Virtual Private Cloud**. On the **Virtual Private Cloud** page displayed, click **Create VPC**.
- **Step 3** Configure the parameters as follows and click **Create Now**. For details on how to create a VPC, see the *Virtual Private Cloud User Guide*.
 - Name: vpc-peering
 - IPv4 CIDR Block: 10.1.0.0/16
 - Configure other parameters as required.

Figure 2-19 Creating vpc-peering

Basic Information	
Region	Regions are geographic areas isolated from each other. Resources are region-specific and cannot be used across regions through internal r latency and quick resource access, select the nearest region.
Name	vpc-peering
IPv4 CIDR Block	
Enterprise Project	-Select- C Create Enterprise Project
Advanced Settings 🔻	Tag Description
Default Subnet	
AZ	AZ1 • (?)
Name	subnet-6d22
IPv4 CIDR Block	10 · 1 · 0 · 0 / 24 ·
	Available IP Addresses: 251 The CIDR block cannot be modified after the subnet has been created.
IPv6 CIDR Block	Enable ⑦



Creating a VPC Peering Connection

Step 1 In the navigation pane on the left, click **VPC Peering**.

Step 2 In the upper right corner, click **Create VPC Peering Connection**.

- **Step 3** Configure the parameters as follows and click **OK**. For details on how to create a VPC peering connection, see the *Virtual Private Cloud User Guide*.
 - Name: Peering-Test
 - Local VPC: vpc-peering
 - Peer VPC: any VPC
 - Configure other parameters as required.

Figure 2-20 Creating Peering-Test

Create VPC Peering Connection

 A VPC peering conn same region. If you need two VPC 	ection allows two VPCs to s in different regions to co	communicate with each nmunicate with each oth	other if ner, use	they are in the Cloud Connect.
Local VPC Settings				
* Name	Peering-Test]
* Local VPC	vpc-peering		•	С
Local VPC CIDR Block	10.1.0.0/16			
Peer VPC Settings				
* Account	My account	Another account	?	
★ Peer Project			•	?
* Peer VPC			•	
Peer VPC CIDR Block				
	ОК	Cancel		

----End

Adding Routes for the VPC Peering Connection

- **Step 1** In the navigation pane on the left, click **Route Tables**.
- **Step 2** In the upper right corner, click **Create Route Table**.
- **Step 3** Configure the parameters as follows and click **OK**. For details on how to create a route table, see the *Virtual Private Cloud User Guide*.
 - Name: Route-VPC-Test-01
 - VPC: vpc-peering
 - **Destination**: 10.1.0.0/16
 - Next Hop Type: VPC peering connection

• Next Hop: Peering-Test

Name	Route-VPC-	Fest-01		
VPC	vpc-peering		• C	
	IPv4 CIDR bloc	ck: 10.1.0.0/16		
	You can create	1 more route tables for the	e selected VPC.	
Description				
			1	
			0/255	
oute Setting	e			
Destination	?	Next Hop Type ?	Next Hop ⑦	Description
		Local	Local	Default route that enables instance communication within a VPC
Local				
10.1.0.0/16		VPC peerin •	Peering-Test(dc0e99f2-4419-4ed9-9	

Figure 2-21 Creating Route-VPC-Test-01

----End

Creating an ECS

- Step 1 Under Computing, click Elastic Cloud Server.
- **Step 2** In the upper right corner, click **Buy ECS**.
- Step 3 Configure the parameters as required. For details, see Elastic Cloud Server User Guide.

Select vpc-peering for VPC and set Name to ECS-Test.

Figure 2-22 Buying ECS-Test

Elas	stic Cloud Server ⑦							Feedback	성 ECS News	Quick Links	Buy E
	Start Stop Reset Password Mo	ire 💌								c 🛛 🗆	88 :
	Searched by Name by default.) ھ
	Name/ID ↓≡	Monitoring	AZ 🖓	Status 🏹	Specifications/Image	IP Address	Billing Mode 🍞	Enterprise Project	Tag	Operation	
	ECS-Test 7394fbda-d0de-4424-a1df-600e575c869c	8	AZ7	Running	2 vCPUs 4 GiB c7.large.2 CentOS 7.6 64bit	10.1.0.56 (Private I	Pay-per-use Created on May	longterm-EPSTe		Remote Login	More 👻



Figure 2-23 Deploying Nginx on ECS-Test



----End

Buying a Dedicated Load Balancer and Adding an HTTP Listener and a Backend Server Group to the Load Balancer

- Step 1 Under Networking, click Elastic Load Balance.
- **Step 2** In the upper right corner, click **Buy Elastic Load Balancer**.
- Step 3 Configure the parameters as follows. For details, see Elastic Load Balance User Guide.
 - Type: Dedicated
 - IP as a Backend: Enable
 - VPC: vpc-peering
 - Name: ELB-Test
 - Configure other parameters as required.

Figure 2-24 Creating a dedicated load balancer named ELB-Test

Elastic Load Balance 💿 🤏 Process Flow) Feedback 🕼 Quick Links	Buy Elastic Load Balancer
Why just learned addated tead before that one exclusion rescurse, provide parameterized performance metrics, and apport IP-M Try now X										
Renew Change Biling Mode Une	ubscribe	Backend Server	Status:							C E O
NameID	Monit	Status	Type	Specifications	IP Address and Network	Listener (Frontend Protoc	Bandwidth Informa	Billing Mode	Enterprise Project	Operation
C ELB_Test	Ø	Running	Dedicated	Network load balanci Application load bala	(Private IPv4 add vpc-peering (VPC)	Istener(HTTP/80)		Pay-per-use Created on Sep 27, 2	default	Add Listener More ¥

Step 4 Add an HTTP listener and a backend server group to the created dedicated load balancer. For details, see **Elastic Load Balance User Guide**.

----End

Adding the ECS to the Backend Server Group

- **Step 1** Locate the dedicated load balancer and click its name **ELB-Test**.
- **Step 2** On the **Listeners** tab page, locate the HTTP listener added to the dedicated load balancer and click its name.
- **Step 3** In the **Backend Server Groups** tab on the right, click **IP as Backend Servers**.
- **Step 4** Click **Add IP as Backend Server**, configure the parameters, and click **OK**. For details, see **Elastic Load Balance User Guide**.

- Backend Server IP Address: 10.1.0.56 (private IP address of ECS-Test)
- Backend Port: the port enabled for Nginx on ECS-Test
- Weight: Configure this parameter as required.

Figure 2-25 Adding IP as backend servers

< sease."		
Summary Backend Servers		
Backend Servers P as Backend Servers Supplementary Network Interfaces	Add IP as Backand Server	×
Add Modify Weight Remove V Specify filter miteria.	 Use the IOA models to sitian IP addresses of cleris Law more Ensure that the security group that contains the backend servers has selex allowing access from the backend sobred of the load balance. If access a not allowed, heath clericits will fail. 	C
Backend Server IP Address	Batch Add Ports OK	Weight Backend Port
	You can add 485 more IP as Backerd Servers. Increase quota	
	Backend Server IP Address Backend Port (?) Weight (?) Operation	
	10 - 1 - 0 - 56	
	Add Backerd Server	
	CK Carcel	

----End

Verifying Traffic Routing

- **Step 1** Locate the dedicated load balancer **ELB-Test** and click **More** in the **Operation** column.
- **Step 2** Select **Bind IPv4 EIP** to bind an EIP (120.46.131.153) to **ELB-Test**.

Figure 2-26 EIP bound to the load balancer

.oad Balancers ①										k Links Buy Elastic Lo	oad Ba
We ve just launched dedicated load balancers that use exclusive resources, provide guaranteed performance metrics, and support IPv6. Try now											
Backend Server State	us: 🌔 4				All projects	▼ Name	e 👻			Q Search by Tag 😸	С
Name	Status	Туре 🍞	Specification	IP Address and Network	Listener (Frontend Protocol/	Bandwidth	h Information	Billing Mode	Enterprise P	Operation	
ELB-Test	Running	Dedicated	Network load balancing (TCP/UDP elbv3.basic.1az 10 LCU Application load balancing (HTTP/ elbv3.basic.1az 10 LCU	10.1.0.9 (Private IPv4 address 120.46.131.153 (IPv4 EIP) vpc-peering (VPC)	listener-8b6d (HTTP/80)	IPv4 11 Pa By	Mbit/s iy-per-use / bandwidth	Pay-per-use Created on Ma	longterm-E	Modify IPv4 Bandwidth Me	lore 🔻

Step 3 Enter http://120.46.131.153/ in the address box of your browser to access the dedicated load balancer. If the following page is displayed, the load balancer routes the request to ECS-Test. After receiving the request from the load balancer, ECS-Test processes the request and returns the requested page.

Figure 2-27 Verifying traffic routing

← → C 120.46.131.153	
	Welcome to nginx!
	If you see this page, the nginx web server is successfully installed and working. Further configuration is required.
	For online documentation and support please refer to <u>nginx.org</u> . Commercial support is available at <u>nginx.com</u> .
	Thank you for using nginx.
End	