Cloud Application Engine

FAQs

Issue 01

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HUAWEI

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Contents

1 Component Management FAQs

1.1 What Do I Do If a Component Is Not Ready After Being Deployed or Upgraded?

If a component is not ready, it is not running properly, and some or all instances are not started properly.

Procedure

Step 1 Select the component to be deployed or upgraded from **Instances**, view the instance status, and check whether the component list is not updated in time.

Step 2 If all components have been updated, go to **Component Logs** and **Component Events** to locate the fault.

----End

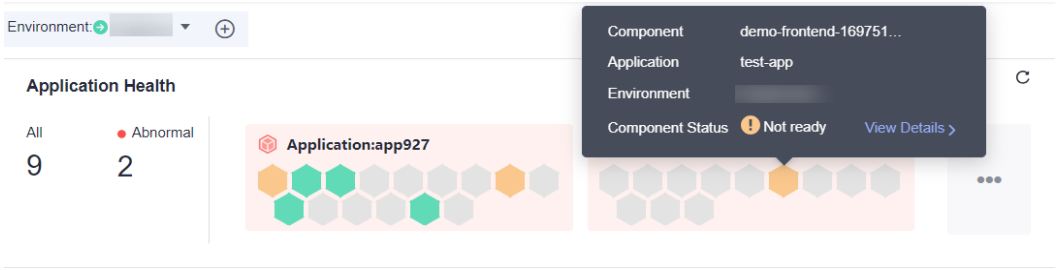
1.2 What Do I Do If I Get "xxx more exist" When Creating a Component?

This error indicates that the component name already exists in the current application and environment. Use another name to create it or delete the component with the same name.

1.3 How Do I Check Abnormal Component Instances?

Hover over the abnormal instances and click **View Details** in the displayed dialog box to go to the **Component Monitoring** page and view the monitoring data. Alternatively, click **Component Logs** in the navigation pane to go to the **Component Logs** page, view logs, and locate the cause of the instance exception.

Figure 1-1 Viewing abnormal components



1.4 Why Is Deployment Using Source Code or Software Packages So Much Longer than Deployment Using Images?

Deployment using source code or software packages involves packaging and build, which take a lot of time. The specific time is closely dependent on the service.

2 Environment Management

2.1 What Can I Do If the Environment Quota Is Insufficient?

By default, only one environment can be created. To add more environments, **submit a service ticket** to increase quota.

2.2 Under What Circumstances Will the Environment Hibernate?

Your environment will automatically enter hibernation mode if it meets any of the following conditions:

- No component has been deployed in all CAE environments in the same region under your account within 12 hours.
- Components in all CAE environments in the same region under your account have been running for less than 5 minutes within three days.

3 Component Configuration FAQs

3.1 Is Manual Scaling Still Effective When a Scaling Policy Is Configured?

Manual scaling cannot be configured if the scaling policy has been enabled for your component. To configure manual scaling, disable the scaling policy in the component and then perform related operations.

3.2 Can Components Be Scaled Without a Scaling Policy?

Components can be auto scaled only after a scaling policy is configured.

If no scaling policy is configured, you need to manually scale in or out components.

3.3 Why Is My Instance Abnormal After Cloud Storage Is Configured?

When configuring the parallel file system of cloud storage, if the corresponding subpath is not created in the selected parallel file system, the instance will be abnormal.

Example:

Figure 3-1 Mounting information

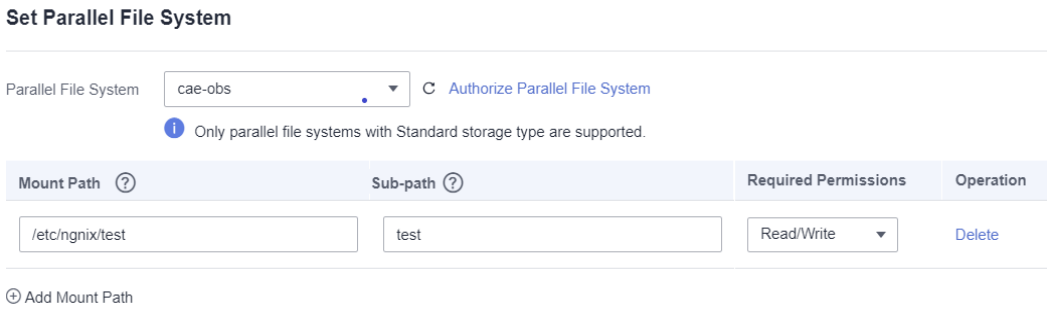


Figure 3-2 No test folder or file in the parallel file system

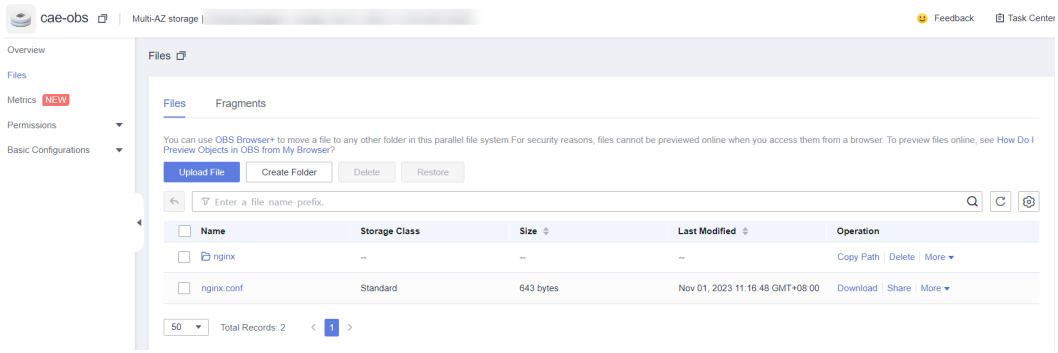
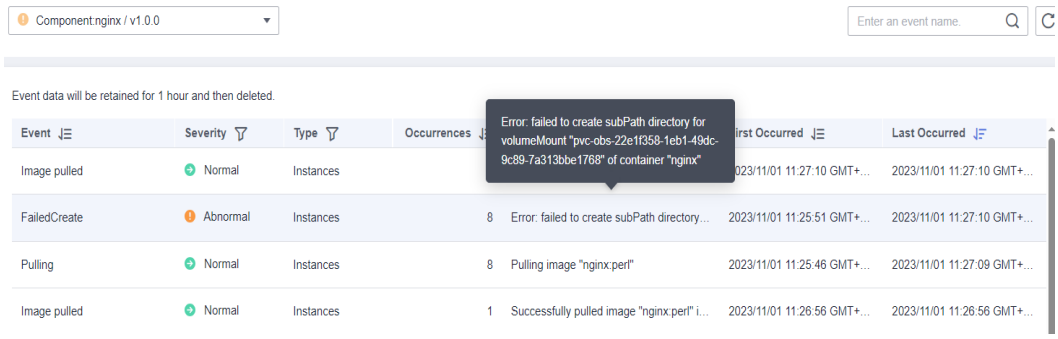


Figure 3-3 Error event



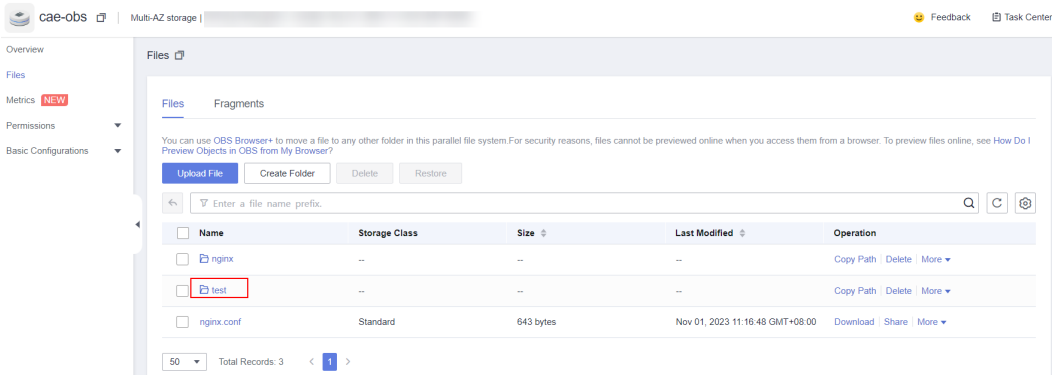
Solution

Step 1 Log in to the OBS console.

Step 2 Select **Parallel File Systems** and click the authorized parallel file system (example: **cae-obs**). The parallel system page is displayed.

Step 3 Create a file or folder with the same name as the subpath (example: **test**).

Figure 3-4 Creating a file with the same name



----End

3.4 What Do I Do If a Component Becomes Not Ready?

Symptom

The component was not updated or restarted, but the component status automatically changed to **Not ready**, and then goes back to normal.

Possible Cause

During peak hours, there are many API requests, and the processes use too many CPU resources. As a result, the processes restart.

Solution

- Configure an auto scaling policy for components. When the CPU usage exceeds the threshold, the number of instances automatically increases. For details, see **Adding an AS Configuration**.
- Enable performance management, interconnect with APM 2.0, and monitor the API traffic to locate the cause of high CPU usage and the corresponding APIs. For details, see **Configuring Performance Management**.

3.5 How Does CAE Support Dark Launch?

Currently, CAE works with Cloud Service Engine (CSE) to dark launch components. Start by **Configuring Cloud Service Engine** in component configuration to interconnect with CSE. Then configure dark launch by referring to **Using Dark Launch**.

3.6 How Do I Provide Prometheus Metrics for a Java Application?

Context

Prometheus is built in CAE to collect monitoring metrics of components. The default monitoring metrics are limited. To customize more metrics, define the

corresponding structure (Exporter) in the program, expose the API, deploy the structure on CAE, and configure it. This section uses the Spring Boot backend component in **Getting Started** as an example to describe how to customize Prometheus metrics. It exposes Prometheus metrics through HTTP and customizes the metric structure as required.

Adding the POM Dependency

Add the following dependency to the **src/pom.xml** file.

```
<dependency>
  <groupId>org.springframework.boot</groupId>
  <artifactId>spring-boot-starter-actuator</artifactId>
</dependency>
<dependency>
  <groupId>io.micrometer</groupId>
  <artifactId>micrometer-registry-prometheus</artifactId>
</dependency>
```

Modifying the Configuration File

Modify the **actuator** configuration in the **application.yml** file in the **resources** directory to expose Prometheus metric data.

```
management:
  endpoints:
    web:
      exposure:
        include: prometheus
```

After configuration, the Spring Boot project exposes Prometheus monitoring metrics through port 9090 in the **/actuator/prometheus** path.

Customizing Monitoring Metrics in the Spring Boot Project

Define a metric of the Counter type: The value increases by 1 each time a frontend click calls the backend API.

In **src\main\java\com\huawei\cae\controller\UserDataController.java**, define the following fields and methods and import required classes:

The function is to define monitoring metric **click_operated_total** of the Counter type.

```
import io.micrometer.core.instrument.Counter;
import io.micrometer.core.instrument.MeterRegistry;
import javax.annotation.PostConstruct;
...

@Autowired
private MeterRegistry registry;

private Counter visitCounter;

@PostConstruct
private void init() {
 visitCounter = registry.counter("click_operated_total", "click_operated_total","");
 }
```

Add the following code to the first line of the clientTest() method called by the frontend:

```
visitCounter.increment();
```


In this way, each time the method is accessed, the value of **click_ operated_total** defined above increases by 1.

The modified project can be deployed on CAE to monitor the customized Prometheus metrics.

4 System Configuration FAQs

4.1 How Do I Bind a User-Defined Domain Name to CAE?

Prerequisites

You have created a CAE environment.

Procedure

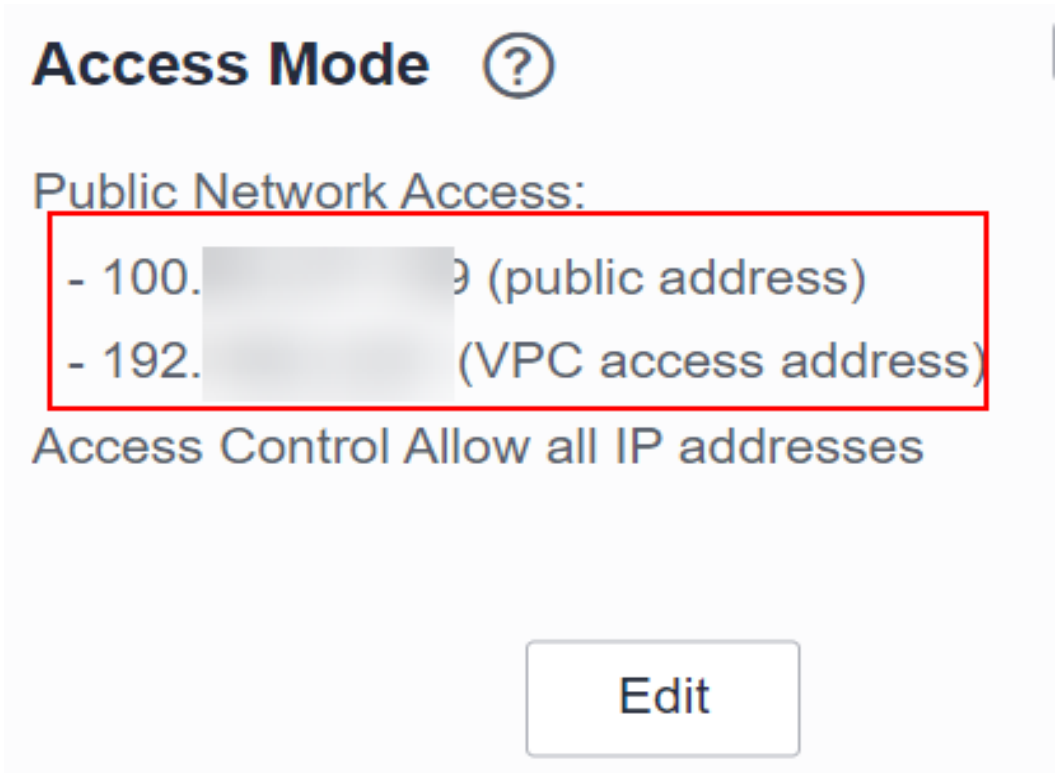
If you use Huawei Cloud DNS, perform the following steps:

Step 1 Log in to the CAE console and choose **Component Configurations**.

Step 2 Select the target component from the drop-down list in the upper part of the page.

Step 3 In the **Access Mode** module, obtain the public IP address and VPC access address, as shown in **Figure 4-1**.

Figure 4-1 Obtaining the public IP address and VPC access address (an EIP must be bound to a dedicated EIB)

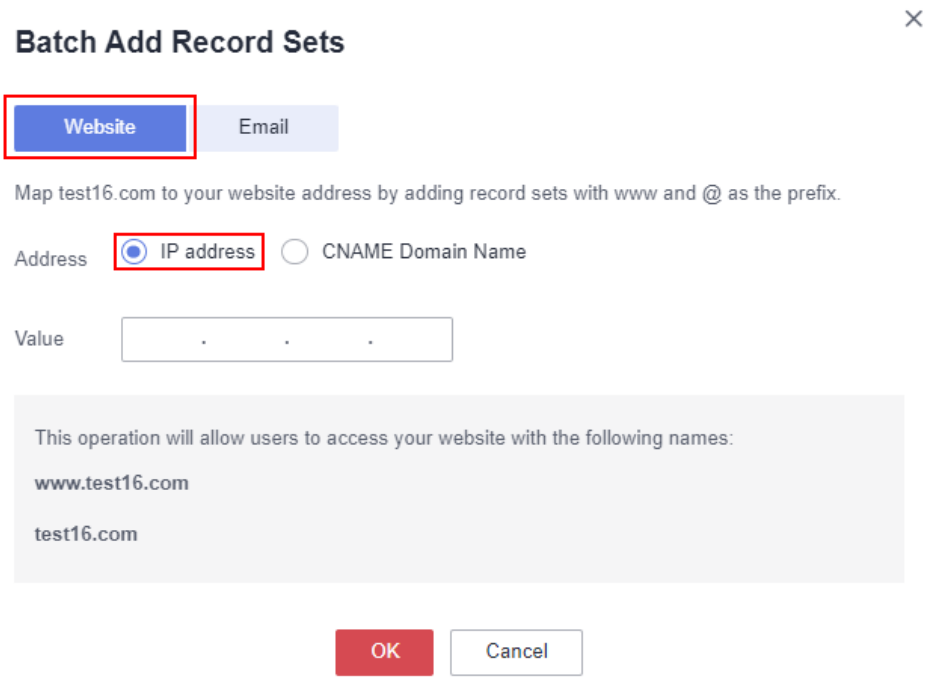


Step 4 Log in to the DNS console.

Step 5 Configure a record set.

- Configure public access
  a. Choose **Public Zones**. The zone list page is displayed.
  b. Click **Create Public Zones**, enter a zone name, select an enterprise project, and click **OK**.
  c. In the public zone list, click the new zone.
  d. Click **Batch Add Record Sets**. On the displayed page, select **Website** and set **Address** to **IP address**.

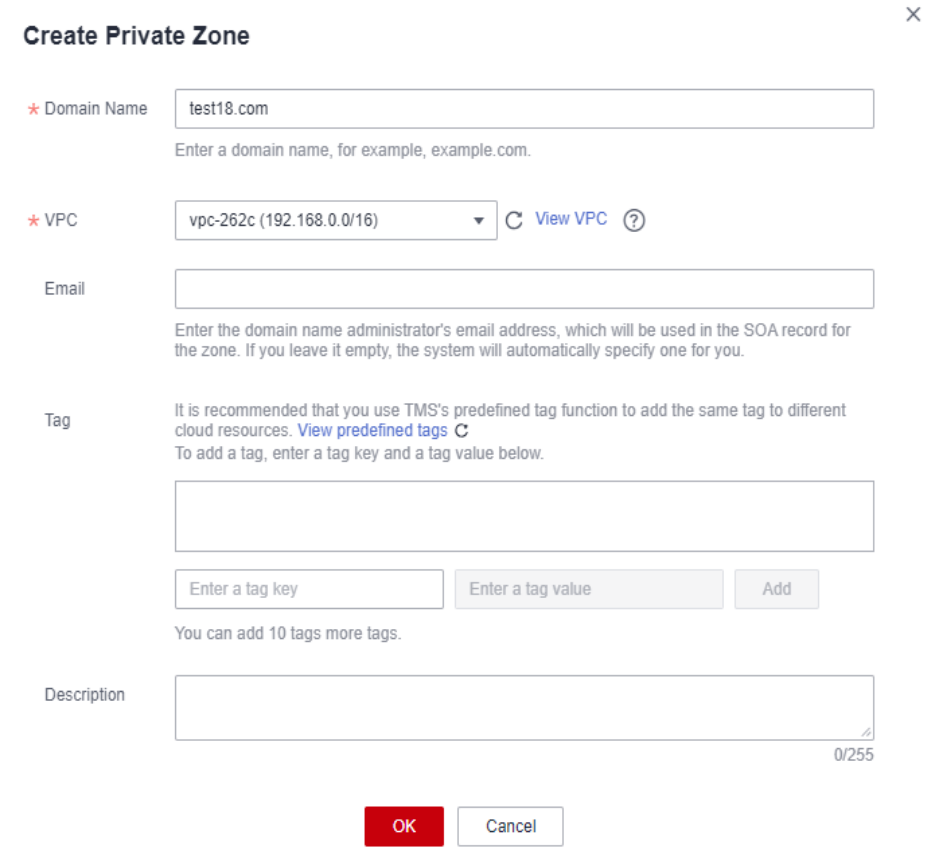
Figure 4-2 Batch Add Record Sets (public IP address)



e. For **Value**, enter the public IP address obtained in **Step 3**.

- Configure VPC access
  a. Choose **Private Zones**. The zone list page is displayed.
  b. Click **Create Private Zones**, enter a zone name, select the VPC in the same environment as the component, and click **OK**.

Figure 4-3 Creating a private zone



c. In the private zone list, click the new zone.

d. Click **Add Record Set** and enter the VPC access address obtained in **Step 3** for **Value**.

Figure 4-4 Binding an IP address to a private zone

Step 6 Click **OK**.

----End

4.2 How Do I Test the Domain Name Resolution?

Verifying the Binding of a Public Access IP Address

After a domain name is added as shown in **Figure 1 Domain name configuration**, run the **ping** command to check whether the domain name is bound to a public IP address.

Figure 4-5 Configuring a domain name

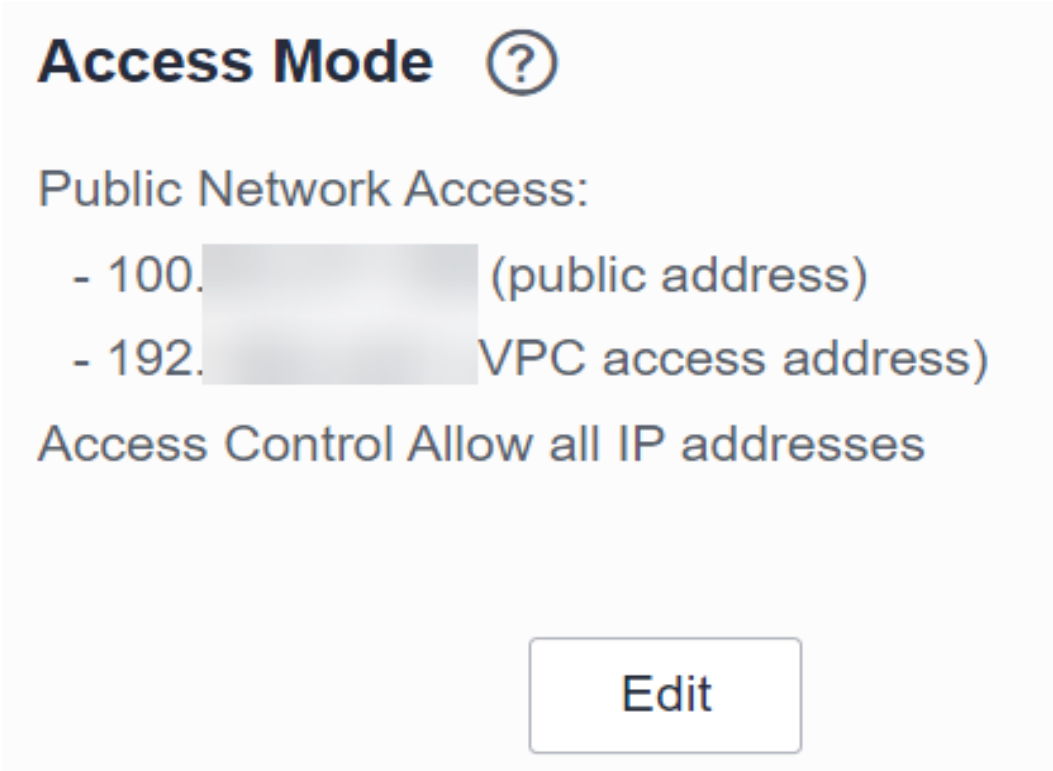
Step 1 Open the command line interface (CLI).

Step 2 Run the **ping** *domain name* command, for example, **ping cae-demo.com**.

Step 3 Press **Enter**. The ping is successful, and the domain name has been bound to IP address 100.*.*.65.

Step 4 Log in to the CAE console and choose **Component Configurations** > **Access Mode**. The public IP address of the component is shown in **Figure 4-6**. If the IP address in **Step 3** ping result matches the public IP address, the domain name is effective.

Figure 4-6 Public access IP address



----End

Verifying the Binding of a VPC Access IP Address

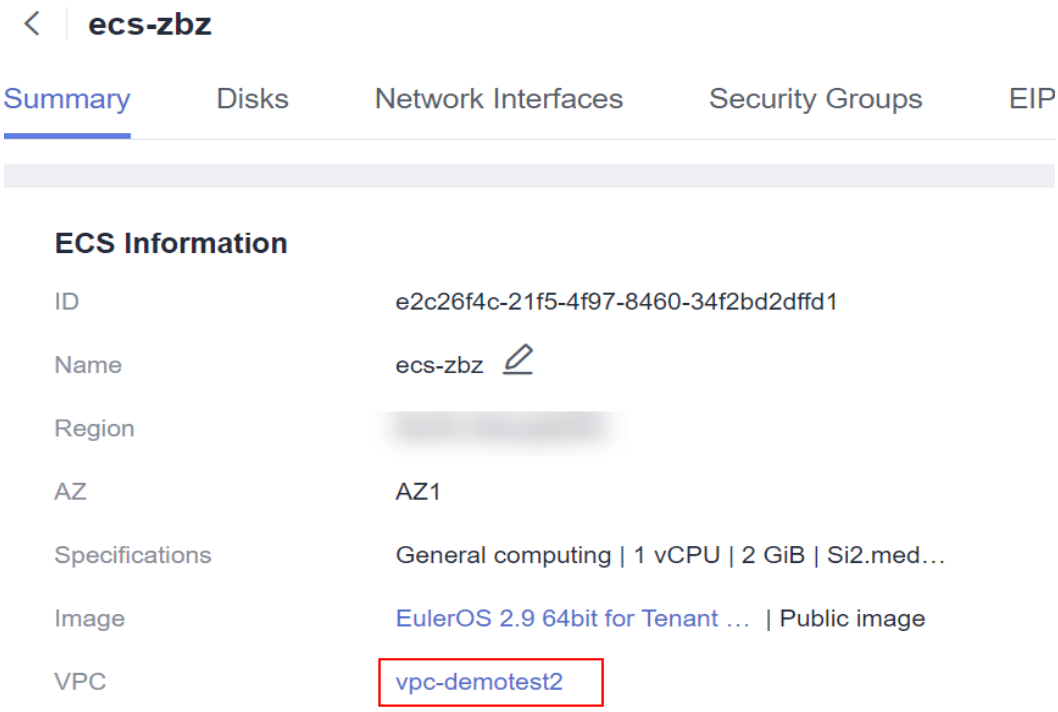
After the domain name configuration is added as shown in **Figure 1 Domain name configuration**, access the ECS in the same VPC as the CAE environment to check whether the domain name is bound to the VPC access IP address.

Figure 4-7 Configuring a domain name

Step 1 Log in to the ECS console and choose **Elastic Cloud Server**.

Step 2 In the ECS list, select an ECS connected to the same VPC.

Figure 4-8 Selecting an ECS in the same VPC (example: vpc-demotest2)



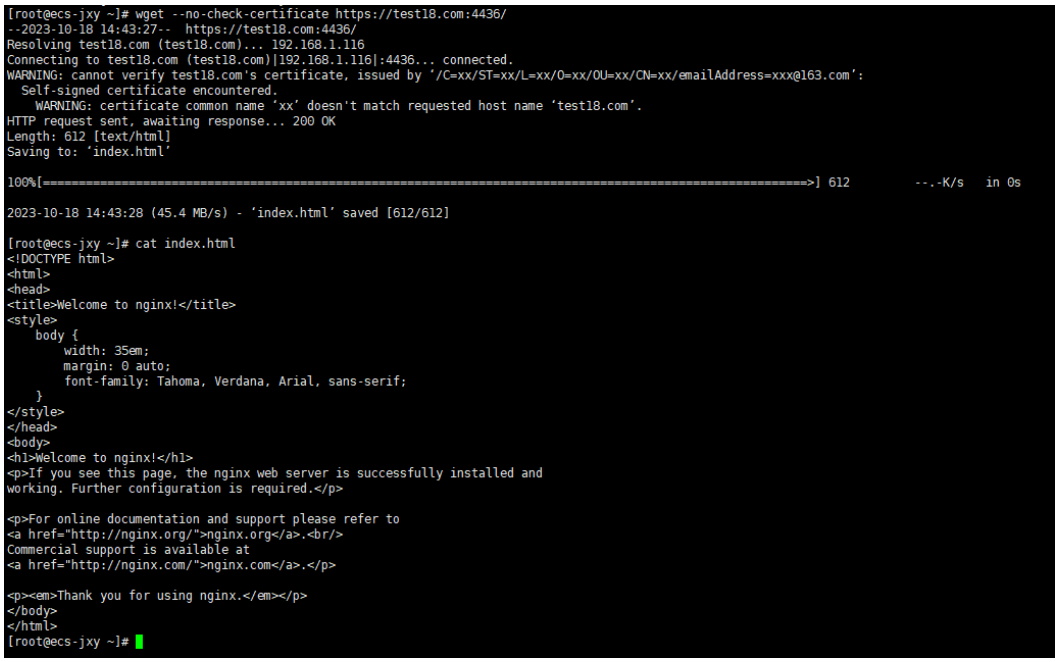
Step 3 Ping the private domain name (test18.com) from ECS to check whether the network is normal. For details about how to use Xshell, see **Figure 4-9**.

Figure 4-9 Pinging a private domain name

```
[root@ecs-jxy ~]# ping test18.com
PING test18.com (192.168.1.116) 56(84) bytes of data.
64 bytes from 192.168.1.116 (192.168.1.116): icmp_seq=1 ttl=64 time=0.089 ms
64 bytes from 192.168.1.116 (192.168.1.116): icmp_seq=2 ttl=64 time=0.108 ms
64 bytes from 192.168.1.116 (192.168.1.116): icmp_seq=3 ttl=64 time=0.097 ms
64 bytes from 192.168.1.116 (192.168.1.116): icmp_seq=4 ttl=64 time=0.078 ms
64 bytes from 192.168.1.116 (192.168.1.116): icmp_seq=5 ttl=64 time=0.083 ms
^C
--- test18.com ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 5002ms
rtt min/avg/max/mdev = 0.078/0.091/0.108/0.010 ms
[root@ecs-jxy ~]#
```

Step 4 Run the **wget** command on the ECS to access the intranet domain name (test18.com) to check whether the component is running properly. For details about how to use Xshell, see **Figure 4-10**.

Figure 4-10 Accessing a private domain name



----End

4.3 How Do I Migrate a Domain Name to Huawei Cloud?

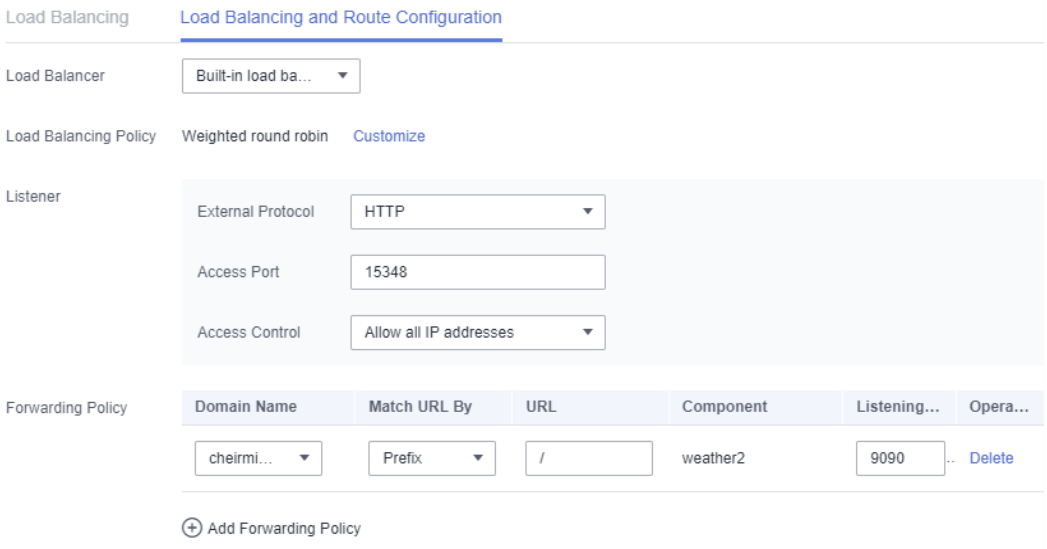
For details, see **How Do I Migrate My Domain from Another DNS Service Provider to Huawei Cloud DNS?**

4.4 How Does a Domain Name Configured on a Third-Party Cloud Support Huawei Cloud Services?

Procedure

1. Log in to the third-party cloud website where the domain name is located and add two records to the resolution settings. The following uses domain name **cheirmin.top** as an example.
   - The host record is www, and the record value is the elastic IP address displayed on the CAE overview page.
   - The host record is empty, and the record value is the elastic IP address displayed on the CAE overview page.
2. Add related domain names in system settings. For details, see "Domain Names" in **System Settings**.
3. Log in to the CAE console, choose **Component Configurations** > **Access Mode** > **Load Balancing and Route Configuration**, and configure the domain name, as shown in **Figure 4-11**.

Figure 4-11 Forwarding policy



4.5 How Do I Use Other Methods to Resolve Domain Names?

For details, see **DNS: Add Record Sets of Different Types**.

5 Service Resources FAQs

5.1 Freezing, Releasing, and Deleting CAE Resources

Why Were My CAE Resources Released?

If your subscriptions have expired but not renewed, or if your account is in arrears, the grace period starts. If you do not renew your subscriptions or pay the arrears after the grace period expires, the resources enter a retention period, during which the resources are not available. If you do not renew your subscriptions or pay the arrears after the retention period expires, your data will be deleted and your resources will be released.

Why Were My CAE Resources Frozen?

Resources can be frozen due to arrears, violations, or public security issues.

What Do I Do If My Resources Are Frozen?

- Resources frozen due to arrears can be renewed, released, or deleted. Renew them or top up your account to unfreeze and restore them.
- Resources frozen due to violations can be renewed, released, or deleted.
- Resources frozen due to public security issues can be renewed but cannot be released or deleted.

What Impact Does Resource Freezing, Unfreezing or Release Have on My Resources?

- When resources are frozen, you can neither create new resources nor operate existing ones, such as modifying component configurations and upgrading components.
- After resource are unfrozen, you can operate them. However, you need to check whether services are running properly.
- After resources are released, data stored in the resources will be deleted and cannot be retrieved.

Can Released Resources Be Restored?

No. The instances have been deleted and cannot be restored.

