



# **vxAG Installation Guide for Huawei Cloud**

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## Revision History

Date	Description
October 10, 2016	Initial official version.

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# 1 Introduction

Array vxAG is a virtual version of the Array AG Series secure access gateway, which offers fast, secure, and scalable remote access to Web and non-Web applications. The vxAG appliance establishes security with AAA and user policies, provides access methods for Web, mail, file and native application servers, and assures scalability with the virtual site and HA technology.

Array now provides support for deploying the vxAG as ECS (virtual machine) on the Huawei Cloud computing platform. Array vxAG image is available in the Huawei Marketplace. With this support, Huawei Cloud customers can leverage Array vxAG SSL VPN and other valuable features to better meet their business needs.

## 1.1 How Array vxAG Works on Huawei Cloud

Huawei Cloud provides various services like Virtual Private Cloud (VPC), Elastic Cloud Server (ECS), Elastic Volume Service (EVS) and so on.

Huawei Cloud VPC provisions a logically isolated, configurable, and manageable virtual network where you can create multiple subnets to define the services like VPN, ECS and so on. Huawei Cloud VPC simplifies the network management process, and also provides access rules to enhance the security for the services deployed within the virtual network.

Huawei Cloud ECS is a computing server that consists of CPUs, memory, images, and disks and that allows on-demand allocation and elastic scaling. An ECS integrates VPC, virtual firewalls, and multi-data-copy capabilities to build up an efficient, reliable, and secure computing environment.

An EIP is a static, public IP address, which enables the communication between the VPC and the Internet. During the deployment of vxAG ECS, you should bind the vxAG ECS to an EIP.

In deployment, Array vxAG and application servers are launched as ECS within the Huawei Cloud VPC, as shown in the following figure.

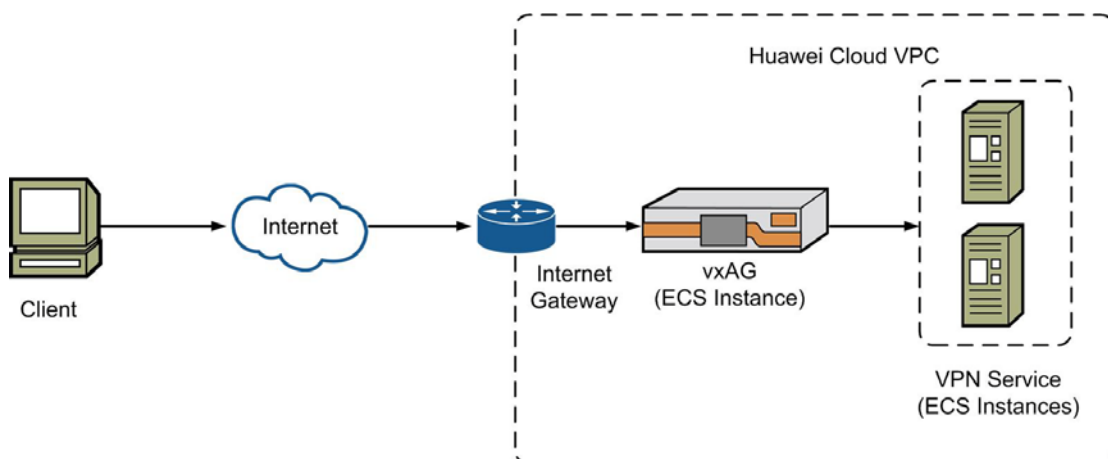


Figure 1–1 Huawei Cloud Service with vxAG Deployed

## 1.2 Supported ECS Types

Huawei Cloud supports multiple ECS types, which are different in disk sizes, processing speed and other capacities. Array vxAG for Huawei Cloud currently supports the following ECS types:

Table 1–1 ECS Types Supported by vxAG

ECS Type	Type Specification	Purpose
General-purpose	c1.xlarge~c1.8xlarge c2.large~c2.8xlarge s1.large~s1.8xlarge	Provides general computing, storage, and network configurations for the majority of application scenarios, such as web servers, enterprise R&D and testing, and small-scale databases.
Memory-optimized	m1.large~m1.4xlarge	Provides a high memory-to-vCPU ratio, used when applications require large memory and process large volumes of data, such as relational databases and NoSQL.

## 1.3 Usage Limitations and Guidelines

Currently, vxAG for Huawei Cloud has the following limitations:

- In the Huawei Cloud service architecture, the vxAG ECS is provided only one interface. The vxAG ECS can have two IP addresses: one EIP (public IP address) and one private IP address. On the vxAG ECS, all the VIPs must use the EIP to communicate with the internet.
- vxAG for Huawei Cloud supports the following features:
  - SSL VPN
  - Site2Site VPN
  - MotionPro VPN
  - Application Security
- vxAG for Huawei Cloud supports only the BYOL (Bring Your Own License) license mode. Please refer to the section 2.5 Loading the vxAG License for how to load the vxAG license.

## 2 Deployment

This section describes the deployment process of the vxAG ECS on Huawei Cloud.

### 2.1 Creating Huawei Cloud VPC and Security Group

Before the deployment of vxAG ECS on Huawei Cloud, please finish the configuration of VPC and subnet first.

➤ **Creating a VPC**

Before deploying the vxAG ECS, you need to use Huawei Cloud VPC to create a private isolated network on Huawei Cloud. The deployment of the vxAG on Huawei Cloud is similar to that in a physical network infrastructure. For more information about creating and configuring the VPC, please refer to [http://support.hwclouds.com/en-us/usermanual-vpc/en-us\\_topic\\_0013935842.html](http://support.hwclouds.com/en-us/usermanual-vpc/en-us_topic_0013935842.html)

➤ **(Optional) Creating Subnets for the VPC**

Once a VPC is created, a subnet is automatically created by default. If required, you can create multiple subnets in the VPC. For more information about creating subnets, please refer to [http://support.hwclouds.com/en-us/usermanual-vpc/en-us\\_topic\\_0030971615.html](http://support.hwclouds.com/en-us/usermanual-vpc/en-us_topic_0030971615.html)

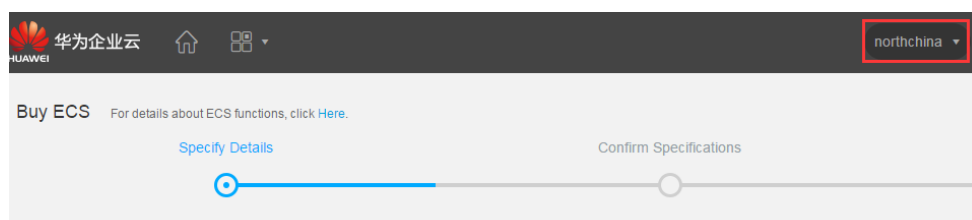
➤ **Creating a Security Group**

A security group is a collection of access control rules for ECSs that have the same security protection requirements and are mutually trusted in a VPC. You can create a security group and add ECSs in the VPC to the security group to improve ECS access security. After a security group is created, it has a default rule. The default security group rule allows all outgoing data packets. ECSs in a security group can access each other without the need to add rules. For more information about creating a security group, please refer to [http://support.hwclouds.com/en-us/usermanual-vpc/en-us\\_topic\\_0030971657.html](http://support.hwclouds.com/en-us/usermanual-vpc/en-us_topic_0030971657.html)

### 2.2 Deploying the vxAG ECS on Huawei Cloud

To deploy a vxAG ECS on Huawei Cloud, please perform the following steps:

1. Log into Huawei Cloud (<http://www.hwclouds.com/en-us/>) with a valid account. In the home page, select **Management Console > Elastic Cloud Server > Buy ECS** to enter the ECS purchase page.
2. Select the region (CN Northeast or CN East) wherein the VPC is created.





**Figure 2–1 Select the Region**

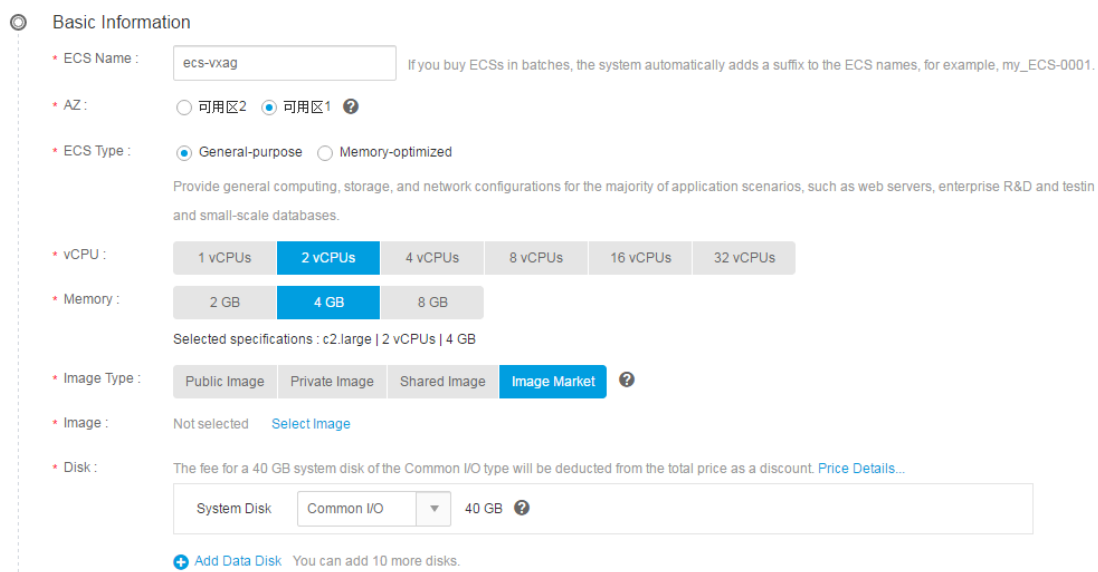
3. Select the fee calculating type. If you choose **Metered**, the fee will be charged on the actual usage.



**Figure 2–2 Select the Fee Calculating Type**

4. Configure the **Basic Information**.

In the **Available Zone (AZ)** option, please select the zone (Zone1 or Zone2) wherein your VPC is created. And select the other parameters as required.



**Figure 2–3 Configure the Basic Information of the vxAG ECS**

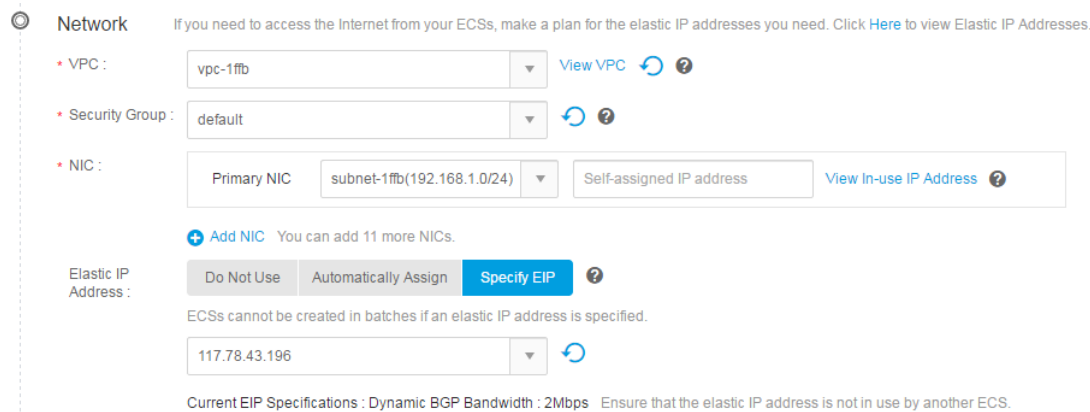
In the **Image Type** option, please select **Image market**, and then click **Select Image** in the **Image** options. In the pop-up window, choose the Array vxAG image (Array SSL VPN) in **Network And Security** category and click **OK**.



**Figure 2–4 Choose the vxAG Image**

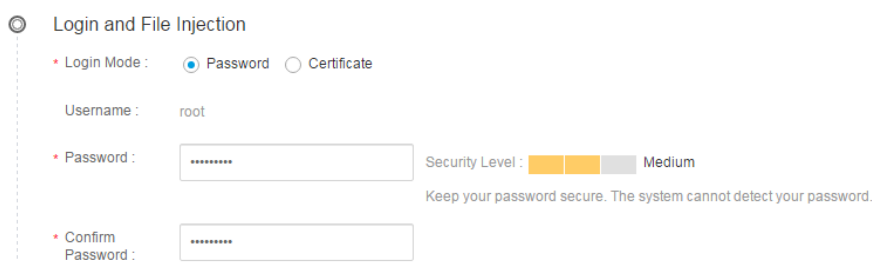
5. Configure the **Network**.

In the **Elastic IP Address** option, you should assign an EIP to the vxAG ECS to enable the communication with the Internet. And select the other parameters as required.



**Figure 2–5 Configure Network Information of the vxAG ECS**

6. Configure the **Login and File Injection**.



**Figure 2–6 Configure Password for the vxAG ECS**



**Note:** Huawei Cloud does not support specifying the login username, and the login password configured here is used only for the creation of the ECS. For more details about the login information, please refer to 2.4 Accessing the vxAG ECS.

7. Click **Buy Now**, and then click **Submit Application** to confirm the purchase.

Resource Details:

Product Name	Configuration	Unit Price	Quantity	Subtotal
1. ECS	Region : northchina AZ : 可用区1 Specifications : c2.large   2 vCPUs   4 GB Image : Array SSL VPN System Disk : Common I/O , 40 GB Elastic IP Address : 117.78.43.196	¥ 1.49/Hour	1	¥1.49/Hour

Price : [Click Here to see billing details.](#)


**¥1.49/Hour**

I have read and agreed to the [Huawei Elastic Cloud Server Agreement](#) and [System Image Disclaimer](#)

[Back](#) [Submit Application](#)

**Figure 2–7 Purchase the vxAG ECS**

8. Check the status of the newly created vxAG ECS in the **Elastic Cloud Server** page.

Name	Status	Specifications	Image	Private IP Ad...	Elastic IP Ad...	AZ	Operation
ecs-vxag	 Running	CPU : 2 vC... Memory : 4 ...	Array_SSL...	192.168.1.22	117.78.43.1...	可用区1	<a href="#">Remote Login</a> <a href="#">More</a> ▾

**Figure 2–8 Status of the Newly Created vxAG ECS**

## 2.3 Binding an EIP to the vxAG ECS

If you do not have enough EIP resources during the deployment of vxAG ECS, you can deploy the vxAG without assigning an EIP at first, and then apply for a new EIP and bind it to the vxAG. The procedure is as follows:

1. Log in to the **Management Console**.
2. On the console homepage, under **Network**, click **Virtual Private Cloud**.
3. On the **EIP** page, click **Apply for EIP**.
4. On the **Apply for EIP** page, set parameters as prompted.
5. Click **Buy Now**.
6. Confirm the order, and read and agree to the service agreement. Then, click **Submit Order**. If you specify the bandwidth size when assigning an EIP, you also need to pay for the bandwidth.
7. On the **EIP** page, locate the row that contains the target elastic IP address, and click **Bind**.
8. On the **Bind IP Address** page, select the required ECS and NIC.
9. Click **OK**.

## 2.4 Accessing the vxAG ECS

### 2.4.1 Accessing the vxAG ECS via SSH

You can connect to the vxAG ECS via SSH after the status of the newly created vxAG ECS becomes “Running”.

To access the vxAG ECS via SSH, use its Elastic IP address and SSH port 22 as the SSH access point. The username is “array”, and the password is “admin”.

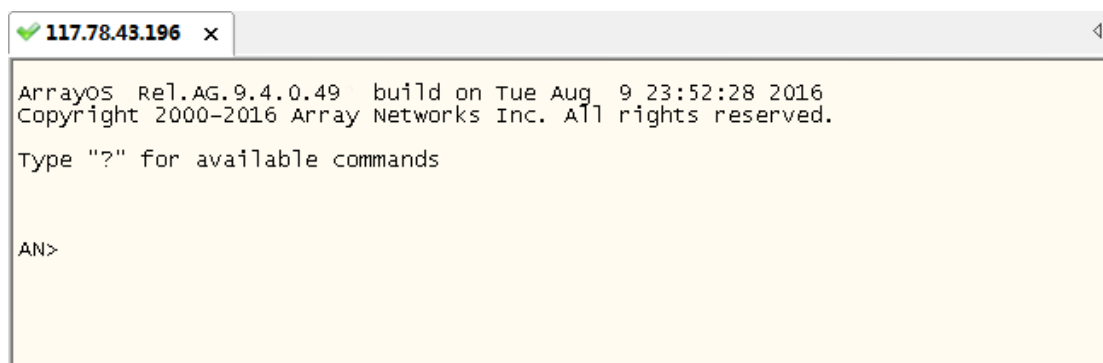


Figure 2–9 Access the vxAG ECS via SSH

### 2.4.2 Accessing the vxAG ECS via WebUI

To access the vxAG via WebUI, you first need to access the vxAG ECS via SSH to make the following configurations:

- Change the password of the default account (array) using the “**admin password** *array new\_password*” command.
- Enable the WebUI using the “**webui on**” command.
- (Optional) Configure the WebUI port using the “**webui port**” command.

After the preceding configurations are completed, you can access the WebUI of the vxAG ECS at [https://<EIP>:<WebUI\\_port>](https://<EIP>:<WebUI_port>) using a Web browser. On the login page, enter “array” as the username and the previously configured “new\_password” as the password to pass the authentication.

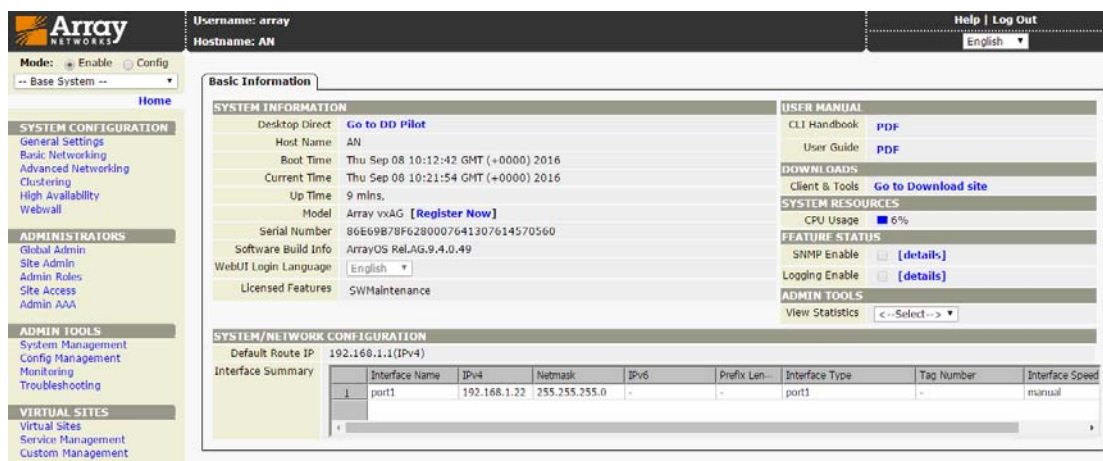


Figure 2–10 Access the vxAG ECS via WebUI

## 2.5 Loading the vxAG License

In order to load the license you need to purchase a vxAG license directly from Array Networks. Then perform the following steps to load the vxAG license:

1. Access the vxAG ECS via SSH.
2. View the software version, model and serial number of the vxAG by executing the “**show version**” command.
3. Contact Array Networks Customer Support by email with the vxAG information and your license options (such as maximum sessions, maximum virtual portals, time duration/trial) to obtain a valid license key.
4. Execute the “**system license**” command in the Config mode, paste the license key and press “Enter”. Then the license will be successfully loaded.

Alternatively, you can load the license via WebUI. To load the license, select **Admin Tools > System Management > License**.