Alibaba Cloud
Elastic Compute Service

Quick Start for Entry-Level Users

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Generic conventions

Table -1: Style conventions

Style	Description	Example
	This warning information indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 **Danger:** Resetting will result in the loss of user configuration data.
	This warning information indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 **Warning:** Restarting will cause business interruption. About 10 minutes are required to restore business.
	This indicates warning information, supplementary instructions, and other content that the user must understand.	 **Note:** Take the necessary precautions to save exported data containing sensitive information.
	This indicates supplemental instructions, best practices, tips, and other content that is good to know for the user.	 **Note:** You can use **Ctrl** + **A** to select all files.
>	Multi-level menu cascade.	**Settings** > **Network** > **Set network type**
Bold	It is used for buttons, menus, page names, and other UI elements.	Click **OK**.
`Courier font`	It is used for commands.	Run the `cd /d C:/windows` command to enter the Windows system folder.
Italics	It is used for parameters and variables.	`bae log list --instanceid` *Instance_ID*
[] or [a|b]	It indicates that it is a optional value, and only one item can be selected.	`ipconfig` *[-all|-t]*
{} or {a|b}	It indicates that it is a required value, and only one item can be selected.	`swich` *{stand | slave}*

Contents

1 Overview

This document describes how to quickly create, connect, and release instances using the console.

Elastic Compute Service (ECS) instances are referred to as *ECS instances* or *instances* in this document.

This document applies only to console operations. For API users, see *API overview*.

Procedure

1. Complete the *preparations*.
2. *Select the configuration*.
3. *Create an instance*.
4. *Connect to the instance*.
5. If data disks are created, you need to *format and mount data disks* for a Linux instance, or *format data disks* for a Windows instance.
6. *Release the instance*.

2 Preparations

Before you begin, you need to complete the preparations described in this article.

- *Sign up for Alibaba Cloud*.
- *Bind your credit card or PayPal account*.
- *Register by using your real name* if you want to create an ECS instance in a region inside mainland China.
- To create ECS instances in a VPC, you need to *create a VPC and switch* in the target region.
- A security group is a virtual firewall, and each instance must belong to at least one security group. The system provides one *default security group*. You can also *create a security group* in the target region and *add security group rules that meet your business needs*.

3 Step 1. Select the configuration

Alibaba Cloud offers more than 200 instance types in 10 categories to meet your needs in different application scenarios.

This article is applicable to entry-level users. The recommended configurations are only for reference when you start using an ECS instance.

Type	Instance Type	Cloud disk	Internet bandwidth	Scenarios
Entry level	1 vCPU + 1 GiB memory (ecs.xn4.small)	40 GiB Ultra Cloud Disks	1 Mbps	It is applicable to personal websites that are in their early stages and have a small number of visits
Advanced	1 vCPU + 2 GiB memory (ecs.n4.small)	40 GiB Ultra Cloud Disks	2 Mbps	It is applicable to websites with moderate traffic, simple development environments, and code base
General	2 vCPU + 4 GiB memory (ecs.n4.large)	40 GiB Ultra Cloud Disks	2 Mbps	It can meet the needs of 90% of entry-level users, and is applicable to enterprise operations, parallel computing and common data processing.
Ideal	4 vCPU + 16 GiB memory (ecs.sn2ne.xlarge)	40 GiB Ultra Cloud Disks	5 Mbps	It is applicable to large and medium-sized websites, distributed analytics and computing, and Web applications.

For more information, see *xn4 type family*, *n4 type family*, and *sn2ne type family*.

Alibaba Cloud provides a flexible and editable way to modify your configuration. For subscription users, if the configuration is found to be excessively high or low in practice, you can *upgrade or downgrade instance configurations*.

For more instance types, see *Instance type families*.

For more information about web hosting, see *Web Application Hosting*.

After confirming the configuration scheme, you can start to create an ECS instance.

4 Step 2. Create an instance

This article introduces how to quickly create an instance using the console by taking the entry-level instance type family for example. For more information, see *Create an instance*. To use the API for instance creation, see *RunInstances*.

Procedure

1. Log on to the *ECS console*.
2. In the left-side navigation pane, click **Instances**.
3. On the **Instances** page, click **Create Instance** to enter the **Custom** purchase page.
4. Follow these steps to finish **Basic Configurations**.
   a) Select **Billing Method**. In this example, select **Pay-As-You-Go**.
   b) Select a region, such as China East 1. Select a zone, or allow one be allocated randomly, as by default.

      Note:
      After an instance is created, you cannot change its region and zone.

   c) Select an instance type and specify the quantity of instances.

      The available *Instance type families* are determined by the region selected. In this example, select **All Generations** > **x86-Architecture** > **Entry-Level (Shared)** > **Compact Type xn4**.
   d) Select an image. In this example, the Public Image is selected.
   e) Select a storage space. In this example, only a system disk is used, and the 40 GiB Ultra Cloud Disk is selected, which is the default.
5. Click **Next: Networking** to finish the networking and security group configuration.
   a) Select **VPC** as the network type. In this example, select the default VPC and VSwitch.
   b) Set the network billing method.

      In this example, select **Assign public IP** and **Pay-By-Traffic**.
   c) Select a security group. You can use the default security group if you do not create one.
   d) Add an Elastic Network Interface (ENI). Skip this step if the selected instance type does not support ENI.
6. Click **Next: System Configurations**.

   Set configurations as needed. We recommend that you set **Log on Credentials** and an **Instance Name**. In this example, select **Password** and set the instance name to ecs-01.

7. Click **Next: Grouping**. You can set the options here as needed. In the case of multiple instances, we recommend that you add labels for ease of administration.
8. Click **Next: Preview**. Confirm the selected configuration. You can also click the edit icon to return and modify the configurations.
9. Read and confirm **Terms of Service**, then click **Create Instance**.

Result

Click **Console** to return to the ECS console. It generally takes one to five minutes to complete instance creation. Click the refresh button to check if the instance is created. If the newly created ECS instance is shown in a **Running** status, the instance is created successfully.

5 Step 3: Connect to an instance

After creating an ECS instance, you can connect to it by using different methods. This article introduces how to connect and manage your ECS instance using the **Management Terminal** in the ECS console. For more information, see *connect to instances*.

Procedure

1. Log on to the *ECS Console*.
2. In the left-side navigation pane, click **Instances**.
3. Select a region. In this example, China East 1 is selected.
4. In the instances list, find the ecs-01 instance that has been created. In the **Actions** column, click **Connect**.
5. In the pop-up **VNC Password** dialog box, copy the password, then click **Close**.

   Note:
   The VNC password appears only once. Remember the password so that you can use it to connect to the Management Terminal later.
6. In the pop-up **Enter VNC Password** dialog box, paste the password, and then click **OK**.
7. Log on to the ECS instance. Do the following according to the operating system:
   - For a Linux instance, enter the username **root** and the instance logon password that is set when you *create an instance*.
   - For a Windows instance, in the upper left corner of the **Management Terminal** interface, click **Send Remote Call** > **CTRL+ALT+DELETE** to enter the logon interface. Enter the password set when you *create an instance* to log on.

   If you forget your instance logon password, *reset the instance password*.

6 Step 4. Format a data disk

6.1 Format a data disk for Windows instances

If data disks are selected when you create a Windows instance, you need to partition and format them for use.

This article describes how to create a single-partition data disk using a new data disk and how to mount a file system. You can also configure multiple partitions based on business needs. This article applies only to data disks that are not larger than 2 TiB. For those that are larger than 2 TiB, see *Partition and format data disk larger than 2 TiB*.

Warning:

- Disk partitioning and formatting are high-risk operations. Please proceed with caution. This article describes how to deal with a blank data disk. If you have data on a data disk, **be sure to create a snapshot for the data disk to avoid any possible data loss**.
- ECS instances only support partitioning **data disks**, not **system** disks. If you use a third-party tool to forcibly partition the system disk, unknown risks may occur, for example, system crash and data loss.

Prerequisites

For a separately *purchased data disk*, you must *attach the data disk to an instance* before partitioning and formatting.

A data disk purchased along with the instance can be partitioned and formatted without being attached.

Procedure

This example describes how to partition and format a 20 GiB data disk on the 64-bit Windows Server 2012 R2.

1. *Connect to an instance*.
2. On Windows Server desktop, right click the **Start** icon, then select **Disk management**.

   The unformatted data disk (Disk 2) appears as **Offline**.
3. Right click the blank area around Disk 2, and select **Online** in the context menu.

   After going online, the status of Disk 2 is displayed as **Not Initialized**.

4. Right click the blank area around Disk 2, and then select **Initialize Disk** in the context menu.
5. In the **Initialize Disk** dialog box, select **Disk 2** and a partitioning method:

   - MBR is still the most common partitioning method. However, this method only supports data disks that no greater than 2 TB and can divide a disk into up to four primary partitions. If you want to divide a disk into more than four partitions, you need to take a primary partition as an extended partition and create logical partitions within it.
   - GPT is a new partitioning method, and cannot be recognized by earlier versions of Windows . The size of GPT-partitioned data disk is determined by the operating system and the file system. In the Windows operating system, GPT supports up to 128 primary partitions.

   In this example, select the MBR partitioning method, and click **OK**.
6. In the **Disk Management** window, right click the **Unallocated** area for Disk 2 and select **New Simple Volume**.
7. In the **New Simple Volume Wizard**, follow these steps:

   a. Click **Next**.

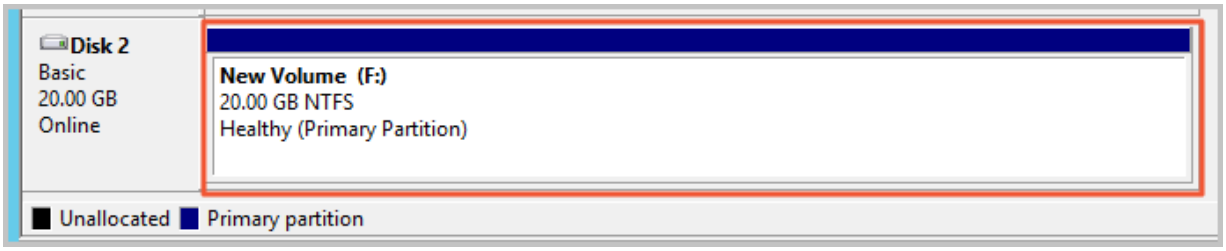
   b. Specify Volume Size: Specify the size of the simple volume to create. If you need only one primary partition, use the default value, and then click **Next**.

   c. Assign Drive Letter or Path: Select a drive letter (in this example, F). Click **Next**.

   d. Format Partition: select format settings (including the file system, allocation unit size, and volume label), and confirm whether to enable **Quick Formatting** and **File and Folder Compression**. Use the default values, then click **Next**.

   e. Create a new simple volume. When the wizard shows the information below, a new simple volume is created. Click **Finish** to close the **New Simple Volume Wizard**.

After the partition formatting is completed, the status of Disk 2 in **Disk Management** is as shown in the following figure.



In **This PC**, you can view a new drive named **New Volume (F:)**. The data disk is now ready to use.

6.2 Format a data disk for Linux instance

If data disks are selected when you create an instance, you must format them and mount a file system before use. This document describes how to create a single-partition data disk using a new data disk and mount a file system. You can also configure multiple partitions based on service requirements.

This article applies only to partitioning a data disk that is not greater than 2 TiB using the `fdisk` command. If the data disk is greater than 2 TiB, refer to *Partition and format data disk larger than 2 TiB*. We recommend that you use the built-in system tool for partitioning.

Warning:

- Disk partitioning and formatting are high-risk operations, so please proceed carefully. This article describes how to deal with a blank data disk. If you have data on a data disk, make sure that you have *created a snapshot of the data disk* to avoid any possible data loss.
- ECS instances only support partitioning the **data disks**, but not the **system disk**. If you use a third-party tool to forcibly partition the system disk, some unknown risks, such as system crash and data loss, may occur.

Prerequisites

For a *data disk* purchased separately from an instance, you must *attach it to an instance* in the ECS console before partitioning and formatting.

For data disks purchased with an instance, you do not have to mount them.

You need to know the device name of the data disk that will be mounted to the instance. You can find the device name of the data disk by going to **ECS Console** > **Block Storage** > **Disks** > **(Disk ID specific) More** > **Modify Atrributes**. By default, the device names are assigned by the system, starting from */dev/xvdb* and arranged in the order */dev/xvdb*–*/dev/xvdz*.

Procedure

In this example, a single-partition data disk is created with a new 20 GiB data disk (device name /dev/vdb) and an ext3 file system is mounted. An I/O-optimized instance with the CentOS 6.8 operating system is used.

1. *Connect to an instance*.

2. Run the `fdisk -l` command to view the data disk. If you do not find */dev/vdb* after running the command, it indicates that your instance does not have a data disk. Therefore, formatting is not required and you can skip the rest of this article.
   - If your data disk shows *dev/xvd?*, you are using a non-I/O optimized instance.
   - *?* is any letter from a−z.
3. Create a single-partition data disk and execute the following commands in sequence:
   a. Run `fdisk /dev/vdb` to partition the data disk.
   b. Enter `n` and press the Enter key to create a new partition.
   c. Enter `p` and press the Enter key to select the primary partition. In this example, you are creating a single-partition data disk, so it is sufficient to create one primary partition.

      Note:
      If you want to create more than four partitions, you should create at least one extended partition by selecting `e`.

   d. Type the partition number and press the Enter key. In this example, `1` is entered.
   e. Enter the first available sector number. Press the Enter key to use the default value of 1.
   f. Type a number for the last sector. Because only one partition is created in this example, press the Enter key to use the default value.
   g. Type `wq` and press the Enter key.

```
[root@iXXXXXXX ~]# fdisk /dev/vdb
Device contains neither a valid DOS partition table, nor Sun, SGI
or OSF disklabel
Building a new DOS disklabel with disk identifier 0x5f46a8a2.
Changes will remain in memory only, until you decide to write them
.
After that, of course, the previous content won't be recoverable.
Warning: invalid flag 0x0000 of partition table 4 will be
corrected by w(rite)
WARNING: DOS-compatible mode is deprecated. It's strongly
recommended to
switch off the mode (command 'c') and change display units to
sectors (command 'u').
Command (m for help): n
Command action
e extended
p primary partition (1-4)
p
Partition number (1-4): 1
First cylinder (1-41610, default 1): 1
Last cylinder, +cylinders or +size{K,M,G} (1-41610, default 41610
):
Using default value 41610
Command (m for help): wq
The partition table has been altered!
```

```
Calling ioctl() to re-read partition table.
Syncing disks.
```

4. Run the `fdisk -l` command to view the new partition. If the following information appears, the new partition /dev/vdb1 is created.

```
[root@iXXXXXXX ~]# fdisk -l
Disk /dev/vda: 42.9 GB, 42949672960 bytes
255 heads, 63 sectors/track, 5221 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk identifier: 0x00053156
Device Boot Start End Blocks Id System
/dev/vda1 * 1 5222 41942016 83 Linux
Disk /dev/vdb: 21.5 GB, 21474836480 bytes
16 heads, 63 sectors/track, 41610 cylinders
Units = cylinders of 1008 * 512 = 516096 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk identifier: 0x5f46a8a2
Device Boot Start End Blocks Id System
/dev/vdb1 1 41610 20971408+ 83 Linux
```

5. Run the command `mkfs.ext3 /dev/vdb1` to create a file system on the new partition.

   - In this example, an ext3 file system will be created. You can also choose to create other file systems according to your needs. For example, if you need to share files between Linux, Windows, and Mac, you can use `mkfs.vfat` to create a VFAT file system.
   - The time required to create a file system depends on the data disk size.

```
[root@iXXXXXXX ~]# mkfs.ext3 /dev/vdb1
mke2fs 1.41.12 (17-May-2010)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=0 blocks, Stripe width=0 blocks
1310720 inodes, 5242852 blocks
262142 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=4294967296
160 block groups
32768 blocks per group, 32768 fragments per group
8192 inodes per group
Superblock backups stored on blocks:
32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632,
2654208,
4096000
Writing inode tables: done
Creating journal (32768 blocks): done
Writing superblocks and filesystem accounting information: done
This filesystem will be automatically checked every 37 mounts or
```

```
180 days, whichever comes first. Use tune2fs -c or -i to override.
```

6. (Recommended) Run the command `cp /etc/fstab  /etc/fstab.bak` to back up the data disk.
7. Run the command `echo /dev/vdb1 /mnt ext3  defaults 0 0 >> /etc/fstab` to write new partition information to */etc/fstab*.

   Note:
   Ubuntu 12.04 does not support barrier, so the correct command for this system is `echo '/dev/vdb1 /mnt ext3 barrier=0 0 0' >> /etc/fstab`.

   If you need to mount the data disk to a folder separately, for example, to store web pages separately, replace `/mnt` with the desired mount point path.
8. View the new partition information in */etc/fstab*: Run the command `cat /etc/fstab`.

```
[root@iXXXXXXX ~]# cat /etc/fstab
#
# /etc/fstab
# Created by anaconda on Thu Feb 23 07:28:22 2017
#
# Accessible filesystems, by reference, are maintained under '/dev/
disk'
# See man pages fstab(5), findfs(8), mount(8) and/or blkid(8) for
more info
#
UUID=3d083579-f5d9-4df5-9347-8d27925805d4 / ext4 defaults 1 1
tmpfs /dev/shm tmpfs defaults 0 0
devpts /dev/pts devpts gid=5,mode=620 0 0
sysfs /sys sysfs defaults 0 0
proc /proc proc defaults 0 0
/dev/vdb1 /mnt ext3 defaults 0 0
```

9. Mount the file system: Run the command `mount /dev/vdb1 /mnt`.
10. To view disk space and usage: run the command `df -h`. If the new file system information appears in the returned results, the mount operation is successful and you can use the new file system.

    After mounting, you can use the new file system directly and do not need to restart the instance .

```
[root@iXXXXXXX ~]# mount /dev/vdb1 /mnt
[root@iXXXXXXX ~]# df -h
Filesystem Size Used Avail Use% Mounted on
/dev/vda1 40G 6.6G 31G 18% /
tmpfs 499M 0 499M 0% /dev/shm
/dev/vdb1 20G 173M 19G 1% /mnt
```

7 Step 5: Release an instance

If you no longer need an instance, release it so it does not continue to incur costs.

For VPC-Connected instances, if you do not enable the No fees for stopped instances (VPC-Connected) feature, costs are incurred after instances are stopped. For instances in classic networks, costs are always incurred after instances are stopped. If you no longer need an instance, you can release it. For more information, see *Stop an instance* and *Release an instance*.

This article describes how to release a Pay-As-You-Go instance on the console. Subscription instances are released automatically after the billing cycle ends.

Note:

If there is data on the instance, we recommend that you *create a snapshot* to back up the data before releasing it.

Procedure

1. Log on to the *ECS Console*.
2. In the left-side navigation pane, click **Instances**.
3. Select a region. In this example, select China East 1.
4. In the list of instances, locate the instance ecs-01 to release. In the **Actions** column, click **More** > **Instance Status** > **Release**.
5. Select **Release Now**, then click **Next**.
6. Confirm that you want to release the instance, then click **OK**.

The released instance is then no longer displayed on the Instances page.