Dedicated Host

FAQs

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1 DeH FAQs

1.1 What Is DeH?

A Dedicated Host (DeH) is a physical server fully dedicated for your use to ensure isolation, security, and performance for your ECSs. You can bring your own license (BYOL) to DeH to reduce the costs on software licenses and facilitate the independent management of ECSs.

1.2 When a DeH Is Needed?

When your services demand high compliance, security, or performance, you can purchase a DeH and deploy the service on it. For more information, see **Application Scenarios**.

1.3 Can I Use DeHs to Build Websites?

You can use ECSs or the ECSs created on DeHs to build websites.

1.4 Can I Buy DeHs by Myself?

Yes. You can buy DeHs on the management console. For more information, see **Buying DeHs**.

1.5 What Hypervisor Is Used by DeHs?

DeHs use KVM. Only KVM ECSs can be deployed on the DeHs.

1.6 Does Each DeH Have a Unique ID?

Yes. Each DeH has a unique ID.

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1.7 What Are the Differences Between DeHs and BMSs?

Bare metal servers and dedicated hosts are physically-isolated servers dedicated to individual tenants. Their differences are as follows:

- DeH: A dedicated host is fully exclusive for your ECSs, but cannot be directly used for running workloads. You can deploy ECSs for running workloads on a dedicated host.
- BMS: A BMS is used as a physical server and can be directly used for running your services.

Figure 1-1 Differences between DeHs and BMSs

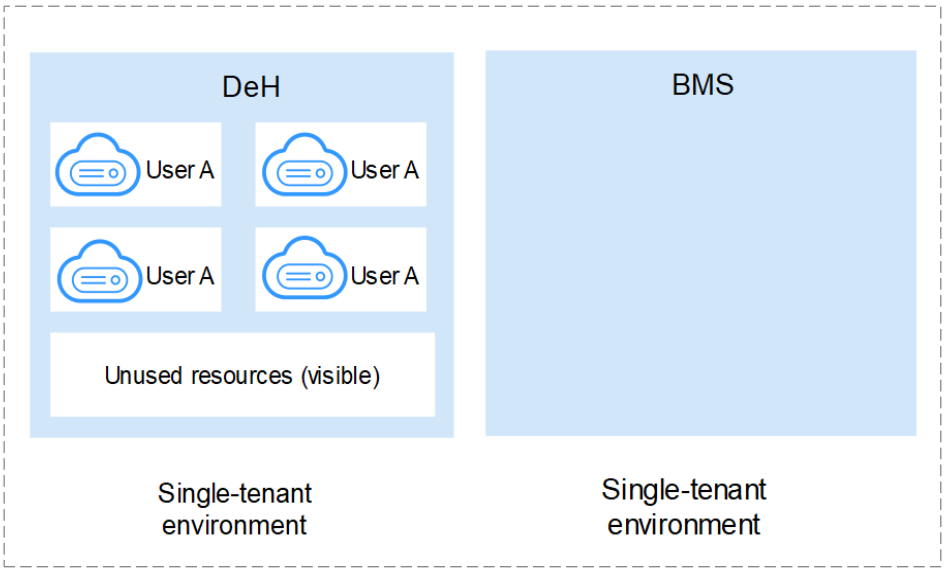

Table 1-1 Differences between DeHs and BMSs

Item	DeH	BMS
Virtualization provided	Yes	No
Usage	Used to accommodate ECSs	Used as a whole server
Supported specifications	Specifications of physical servers running DeHs and supported ECS specifications	Only BMS specifications
Supported images	ECS images	Only BMS images

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1.8 What Are the Differences Between DeH and DeC?

- Scenarios

  DeC provides a complete resource isolation solution by using dedicated services, such as Dedicated Distributed Storage Service (DSS) Dedicated Enterprise Storage Service (DESS), and Bare Metal Server (BMS).

  DeH provides only isolated compute hosts, which are more flexible and suitable for customers who demand computing resource isolation and flexibility.

- Functions

  You need to apply for an independent DeC account before requesting DeC resources. DeC resources and public ECSs work in different VPCs. You cannot migrate public ECSs to a DeC or ECSs in a DeC to a public resource pool.

  ECSs created on a DeH and ECSs in the public resource pool share the same VPC. So, you can migrate a stopped ECS between a DeH and a resource pool.

1.9 What Are the Differences Between DeHs and ECSs?

DeHs are dedicated physical servers where the virtualization environment is deployed and are fully dedicated for your use. Your DeHs are physically isolated from those of other users. After creating a DeH, you can create ECSs on the DeH as well as plan physical server resources.

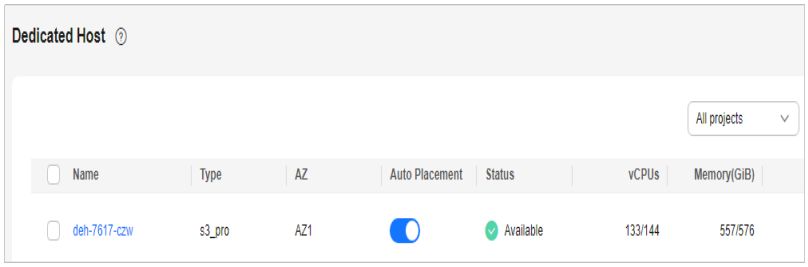
Common ECSs allow multiple users to share physical server resources.

1.10 How Can I Query the Number of Available Resources on a DeH?

You can view the total and available resources (vCPUs and memory) of each DeH on the DeH console.

Use DeH **deh-7617-czw** in the following figure as an example. The total number of vCPUs is 144, and the number of available vCPUs is 130. The total memory is 576 GiB, and the available memory is 552 GiB.

Figure 1-2 Querying available resources of a DeH



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1.11 Why Is It Not Possible to Successfully Create an ECS on a DeH Even When There Are More Available Resources on the DeH Than What the ECS Requires?

A DeH usually has multiple non-uniform memory access (NUMA) nodes. The available resources of a DeH displayed on the console represent the total resources available across all NUMA nodes.

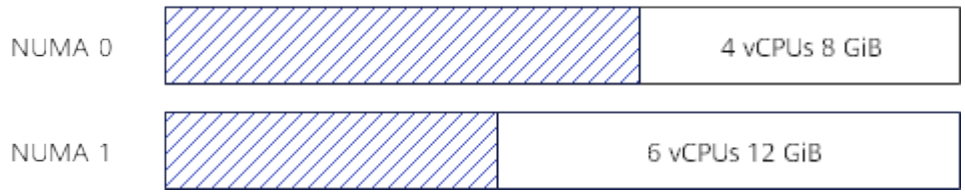
In order to ensure optimal performance, ECSs of certain specifications cannot be deployed across NUMA nodes. If the resources of a single NUMA node are inadequate, the ECS creation will fail.

During ECS creation on a DeH:

- The ECS will be successfully created if the remaining resources of a NUMA node meet or exceed the ECS specification requirement.
- If the remaining resources of each NUMA node do not meet the ECS specification requirement, the creation of the ECS will fail.

For instance, if a DeH has 10 vCPUs and 20 GiB of available resources distributed across two NUMA nodes, attempting to create an ECS with 8 vCPUs and 16 GiB will fail. However, creating an ECS with 4 vCPUs and 8 GiB will be successful.

Figure 1-3 Available DeH resources (example)



1.12 Does DeH Support Capacity Expansion?

No. The hardware configuration of a DeH is planned based on the specifications and quantity of ECSs to be provisioned. If the current DeH capacity cannot meet your service requirements, you can buy more DeHs based on your service requirements.

1.13 What Is BYOL?

If you have a licensed OS or software (licensed based on the number of physical sockets or the number of physical cores), you can bring your own license and migrate your services to the cloud platform.

1.14 How Do I Bring My Own Licenses to a DeH?

To use your own licenses on a DeH, do as follows:

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1. Check whether the license terms and conditions allow you to use the software license on DeHs. Contact the software license provider to confirm whether your existing license can be used on the DeHs. If yes, go to the next step.
2. Submit a review form to your software license provider. You can obtain the values of DeH parameters, such as vCPUs, memory size, sockets, and physical cores, from the DeH console.

1.15 Can I Attach an EVS Disk to a DeH?

No. But you can attach EVS disks to the ECSs on a DeH.

1.16 Is There a Limit on the Number of DeHs That I Can Purchase?

You can purchase one or more DeHs.

The maximum number of DeHs that can be purchased is limited. You can **view the quota** to learn about the maximum number of DeHs that you can purchase. To increase the quota, you can **apply for a higher quota**.

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2 ECS FAQs

2.1 What Are the Differences Between ECSs on DeHs and Those on Shared Hosts?

ECSs on DeHs provide better computing performance and stability than those on shared hosts because resources are exclusively used by the ECSs on DeHs.

2.2 What Are the Restrictions on Creating ECSs on a DeH?

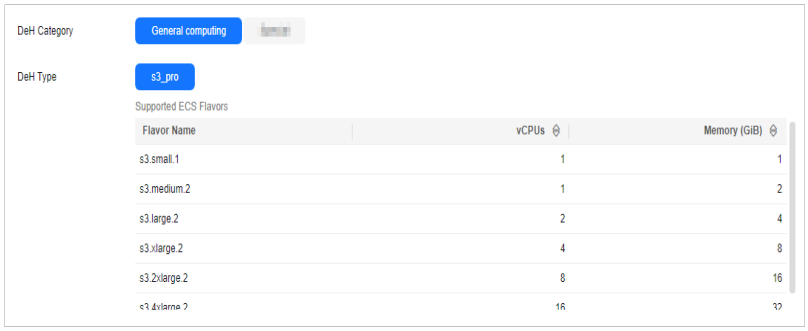
The ECS flavors are determined by the DeH type. For more information, see **Categories and Types**.

2.3 Can I Create ECSs of Different Flavors on a DeH?

Yes. You can create ECSs of different type and flavors on a DeH.

For example, you can create S3 ECSs on an s3_pro DeH. S3 includes a series of flavors, such as s3.medium.4 and s3.large.4.

Figure 2-1 ECS flavors allowed on DeH



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2.4 Can I Modify the Specifications of ECSs on DeHs?

Yes. You can modify the specifications of the ECSs on DeHs by performing the operations described in **Modifying Specifications of ECSs on DeHs**.

2.5 What Should I Do If I Fail to Create an ECS on a DeH?

The following may cause the failure in creating an ECS on a DeH:

- The ECS flavor you selected is not supported by your DeH.

  To avoid this, select an ECS flavor that is supported by your DeH. For the ECS flavors supported by each DeH type, see **Overview**.
- Your DeH resources are insufficient.

  You can check whether the remaining vCPU resources and memory size of your DeH are sufficient for creating an ECS with the specifications you selected. If the resources are insufficient, you need to apply for more DeH resources or delete some ECSs from your DeH.

2.6 Can I Migrate ECSs in Resource Pools to DeHs?

Yes. You can migrate your ECSs between DeHs and public resource pools or between DeHs.

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3 Billing FAQs

3.1 Do I Need to Pay for ECSs Deployed on My DeHs?

No fees are needed for ECSs on your DeHs. However, if your ECSs have EVS disks attached or EIPs bound, you need to pay for the EVS disks and EIPs you used.

3.2 Can I Purchase DeHs on a Pay-per-Use Basis?

No. Only yearly/monthly DeHs are available.

3.3 What Should I Do When My DeHs Expire? What Should I Do If My Account Is in Arrears?

If you want to continue using your yearly/monthly DeHs, you need to renew them. If a DeH is not renewed after it expires, the DeH is automatically disabled and ECSs on the DeH are automatically stopped.

Follow the instructions described in **Topping Up an Account** to top up your account.

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