Cloud Data Center (CloudDC)

FAQs

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1 General Scenarios

1.1 What Is CloudDC?

Cloud Data Center (CloudDC) of Huawei Cloud enables rapid transformation of traditional data centers (DCs) into cloud environments. It allows you to deploy servers in Huawei Cloud equipment rooms, taking advantage of advanced Huawei Cloud capabilities like infrastructure management, cloud-based networks, bare metal-server management, and deterministic O&M.

1.2 What Are the Typical Scenarios of CloudDC?

CloudDC uses native Huawei Cloud capabilities in the following scenarios:

- DC cloud adoption: You can manage your assets in data centers for low-latency access to Huawei public cloud services and cloud-based management of data center infrastructure. In addition, public cloud resources are available for your workloads when there are cloud bursting during service peaks in the CloudDC zone.
- Full-stack AI: You can deploy your AI devices in data centers, where Huawei Cloud's technologies and services are available to smoothly integrate your AI devices with cloud resources, accelerating the deployment of these devices in real business scenarios to enhance efficiency and create value.
- Going global: You can deploy your assets in global data centers to rapidly establish IT infrastructure capabilities worldwide.

1.3 What Are the Advantages of CloudDC Compared with Self-built Private Clouds?

Item	CloudDC	Private Cloud Platform
Billing mode	Yearly/Monthly	Hardware: software buyout and yearly payment

Item	CloudDC	Private Cloud Platform
Single-site SLA	99.9%	No commitment
Data center deployment location	Huawei Cloud equipment rooms	Customers' equipment rooms
Equipment room requirements	Tier 3	On-premises deployment
Cloud services	Connected to Huawei Cloud through VPCs for seamless use of Huawei Cloud services. In addition, various professional services are provided, including server assisted O&M, security services, and emergency drills.	55+ Various PaaS, security, database, EI, and big data services are provided.
Location of the operations console	Huawei Cloud console	Local console
O&M methods	Onsite assisted O&M/ Remote O&M	Customer self-O&M/Remote O&M
Hardware property	Customers (self-owned assets)	Customers or cloud vendors
Scenarios	Hardware devices deployed in data centers: • Self-owned assets, with requirements for capital retention and dedicated security • Different lifecycles and configurations of servers; heterogeneous servers containing new and reused servers • Requirements for simplified data center network management and convenient server O&M	Scenarios where customers without any O&M team want to use public cloud services and use local deployment (data sovereignty)

Item	CloudDC	Private Cloud Platform
Asset type	Medium and light assets. Customers rent the racks and network device assets of a data center.	Heavy assets, with a complex architecture, precise delivery process, and the latest and most comprehensive service types. There are high requirements for personnel and technologies, and the maintenance costs (such as deployment, upgrade, and scale-out) are high.

1.4 What Are the Key Competitiveness of CloudDC?

- **The optimal AI data center infrastructure**: With Tier 3+ standards and power usage effectiveness (PUE) of 1.1, 30 kW liquid-cooled cabinets are supported and 10,000-card AI cluster deployment experience is provided.
- **Deterministic O&M**: provides professional tools, active inspection, unified resource management, deterministic emergency management, and HA architecture design.
- **Plug-and-play networks**: used to connect servers to Huawei Cloud through VPCs quickly to provide a high-bandwidth network dedicated for AI.
- **One-click server management**: Multiple mainstream server models are supported.
- **On-demand combination**: 200+ cloud services in the public service zone are seamlessly used together with CloudDC.

1.5 What Benefits Can CloudDC Provide?

- **Flexible, efficient, and cost-effective:**
  - On-demand resource scheduling: Unified resource scheduling of the CloudDC zone and public cloud and on-demand scheduling of fixed and elastic resources can reduce TCO by 30%.
  - Investment protection: Bare metal server management is provided for your existing third-party servers.
  - No private line required: The CloudDC zone is interconnected with the public cloud network, and no additional private lines are required.
- **Easy to use:**
  - No networking required: 200 Gbit/s cloud-based network services are provided, and servers are plug-and-play.
  - Seamless connection with cloud services: Cloud services can be used on demand and services can be quickly rolled out.
- **Secure and reliable:**

- High-quality data centers: comply with Tier 3+ construction standards to ensure no power failure and no high temperature.
- Deterministic O&M: provides 24/7 attendance, professional tools for fault locating, and quick recovery.
- Visualized O&M: provides visualized O&M monitoring and process-based change control.

1.6 Does CloudDC Support Scale-out?

CloudDC supports scale-out by rack, online order placement, and offline delivery.

2 DC Cloud Adoption

2.1 What Is the DC Cloud Adoption Scenario?

DC cloud adoption enables the cloud-based upgrade of servers in the CloudDC zone.

In the DC cloud adoption scenario, the CloudDC zone can interconnect with Huawei Cloud VPCs to quickly use Huawei Cloud services.

Your servers can be managed, so that you can quickly configure the networks, power on and off the servers, and install OSs on the servers.

2.2 What Are the Server Requirements for the DC Cloud Adoption Scenario?

- The warranty period of servers must be longer than or equal to one year.
- Servers must be provided by mainstream vendors.

3 Full-Stack AI

3.1 What Are the Requirements for Building an AI Cluster in the Full-Stack AI Scenario?

In the CloudDC AI cluster deployment scenario, high-performance NPU/GPU servers are supported. High-reliability, high-power liquid-cooled equipment rooms and high-performance AI networks are used to quickly build high-performance AI data centers while retaining customer assets.

4 Going Global

4.1 What Is the Scenario of Going Global?

By deploying your assets to Huawei Cloud equipment rooms, you can quickly get a highly reliable data center operating environment, eliminating the need for long-term investments in traditional data center site selection, infrastructure construction, facility reconstruction, O&M, and operations.

The intelligent air-cooled and liquid-cooled intelligent racks are provided for you to obtain high-quality, stable, and scarce data centers.

Huawei Cloud takes care of the infrastructure O&M of data centers so you can focus on your core services without worrying about the O&M details.

