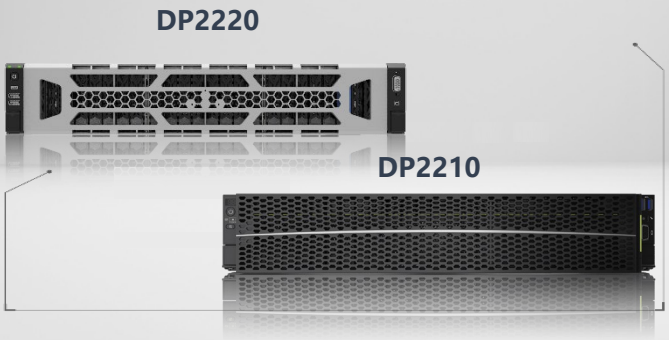
FusionCube HCI Appliance

Data Sheet



Efficient, Reliable, and Simple

Introduction

The next-generation FusionCube hyper-converged appliance (HCI appliance) is lightweight, flexible, and reliable, featuring intelligent O&M. It supports multi-architecture computing, unified design, and software-hardware synergy, delivering a 20% performance boost. Deployment couldn't be simpler. The device can be online within 2 hours, and services up and running within 1 hour. Powerful DR capabilities ensure 24/7 core service availability, and the active-active setup ensures an RPO of zero and a near-zero RTO. On-demand scalability and EC redundancy bring capacity utilization to 80%, further improving resource efficiency.

Simplified O&M

One-click deployment: The HCI solution comes with pre-installed full software stack, including virtualization, scale-out storage, and management software. With MetaVision providing one-click initialization, the appliance can be brought online and services launched within hours, not days.

Network orchestration: Network elements (NEs) and VMs are managed with simple drag and drop, facilitating quick connection and fast service configuration, and simplifying service network setup. The network orchestration topology displays VM network partitions and provides network detection and connectivity checks for quick fault diagnosis, improving O&M efficiency.

DME IQ cloud-based intelligent O&M: The DME IQ mobile app and web UI each offer a way to manage all your HCI appliances in one place, enabling remote monitoring (hardware, VMs, storage, alarms, performance), remote O&M (upgrades and troubleshooting), and intelligent prediction (capacity and hardware service life).

Ultimate reliability

RTO ≈ 0, RPO = 0: The active-active mechanism guarantees zero service interruption, ensuring data resilience and service continuity.

VM ransomware protection (> 90% detection rate): Default ransomware protection policies are preset for application VMs to automatically trigger protection and enable quick service recovery.

Comprehensive data protection: 9 built-in data protection solutions ensure unsurpassed reliability across all hyper-converged scenarios (virtualization snapshots, built-in protection, integrated backup, remote backup, cloud backup, device-level reliability, virtualization HA, active-standby DR, and active-active virtualization).

Lightweight and flexible design

Flexible scalability: Start with as few as two nodes and expand seamlessly without service interruption. New nodes are pre-installed, and MetaVision management software enables one-click scaling. Expansion covers converged, compute, and storage nodes, and x86 and Arm servers can be managed in the same resource pool.

Migration service: Supports agent-based migration across multiple virtualization platforms, and agentless migration specifically for VMware. The agent-based solution achieves service interruption as short as 5 minutes and a first-time migration success rate of up to 99%.

Application Scenarios

Digital transformation of enterprises

Currently, many enterprises use the conventional database architecture of UNIX servers + storage arrays on their live networks. After its conception ten years ago, this architecture was designed to facilitate offline operations of services. However, this architecture creates performance bottlenecks, meaning large-scale capacity expansion is insufficient and cannot significantly improve system performance. In addition to poor scalability, devices are outdated, O&M is complex, and labor and material costs are high. Nowadays, service operation digitalization is the development trend. This operation model features rapid data growth, large user scale, and elastic resource demands. Because the traditional database architecture cannot support enterprise transformation, Huawei released the FusionCube 1000 running on the distributed architecture and featuring Internet characteristics. The product integrates compute, storage, and network resources for simplified management and lower O&M costs. It offers high performance, reliability, and scalability, and is compatible with Oracle, DB2, MySQL, GaussDB, and DM databases among others. Over the past few years, the FusionCube 1000 has replaced thousands of UNIX servers across the world.

For customers who have moved to x86 systems, such large quantities of systems cause inefficient management and maintenance. The Huawei product simplifies management while improving overall system performance and reliability. FusionCube 1000 eliminates the need to purchase separate components from different vendors, making it an ideal choice for customers looking to go digital.

Typical industries

Key Specifications

Product Model	DP2220	DP2210
Chassis Height	Chassis with 3.5-inch disks: 797.5 mm x 447.0 mm x 87.0 mm (excluding mounting ears) Chassis with 2.5-inch disks: 797.5 mm x 447.0 mm x 87.0 mm (excluding mounting ears)	Chassis with 3.5-inch disks: 86.1 mm x 447 mm x 790 mm Chassis with 2.5-inch disks: 86.1 mm x 447 mm x 790 mm
Processor	Supports two processors. • Supported processor models: C5418Y, C6430, C6442Y, C6444Y, C8462Y+, C5520+, and C6542Y • Supports eight memory channels for integrated memory controllers. • Uses four UPI 3.0 buses for interconnection, providing up to 20 GT/s transmission rate per channel.	Supports two processors. • Supported processor models: C4314, C5318Y, C6330, C6346, and C6348 • Supports eight memory channels for integrated memory controllers. • Uses three UPI buses for interconnection, providing up to 11.2 GT/s transmission rate per channel.
Memory	• 32 x DDR5 DIMMs (32 GB/64 GB) • Max. memory transmission rate: 5,600 MT/s (5,600 MT/s for 1DPC and 4,400 MT/s for 2DPC) • Note: DDR5 DIMMs of different types and specifications cannot be used together.	• 32 x DDR4 DIMMs (32 GB/64 GB) • Max. memory transmission rate: 3,200 MT/s • Note: DDR4 DIMMs of different types and specifications cannot be used together.
Storage	Supports multiple disk configurations. • Max. 12 front SAS/SATA disks and 4 rear SAS/SATA/NVMe disks • 12 or 24 NVMe disks • 8 SAS disks	Supports multiple disk configurations. • Max. 12 front SAS/SATA disks, and 4 rear SAS/SATA/NVMe disks • 8 SAS disks • 24 SAS disks
Network	Supports multiple network expansion capabilities. • Onboard NICs: two GE electrical ports integrated on the mainboard • FlexIO cards: one OCP 3.0 NIC with two 10GE optical ports	Supports multiple network expansion capabilities.
I/O Expansion	Supports up to eight PCIe 4.0 expansion slots and two PCIe 5.0 expansion slots. • Two double-width GPUs (450 W) • Max. eight PCIe cards and one OCP 3.0 NIC Note: The number of cards and disks varies according to different configurations.	Supports up to eight PCIe 4.0 expansion slots and two PCIe expansion slots. • Two double-width GPUs (450 W) • Max. eight PCIe cards Note: The number of cards and disks varies according to different configurations.
Port	Supports multiple port types. • Ports on the front panel: two USB 2.0 ports and one VGA port • Ports on the rear panel: one USB 2.0 port, one USB 3.0 port, one VGA port, one RJ45 serial port, one RJ45 system management port, and two GE electrical ports • Built-in port: one built-in USB 2.0 port	Supports multiple port types. • Ports on the front panel: two USB 3.0 ports and one VGA port • Ports on the rear panel: two USB 3.0 ports, one VGA port, one RJ45 serial port, and one RJ45 management network port • Built-in ports: one built-in USB 3.0 port and two SATA ports
Power Module	1+1 redundancy, configured with 1,300 W/2,000 W	1+1 redundancy, configured with 900 W/2,000 W
Fan Module	Four 8056 fan modules, allowing for single-fan failures	Four 8038+ fan modules, allowing for single-fan failures

For More Information

To learn more about Huawei storage, please contact your local Huawei office or visit the Huawei Enterprise website: https://e.huawei.com.

Huawei Enterprise App

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