

- Converged and simplified
- Fast and stable
- Reliable and open



The rise of new Internet services has caused service data to increase astronomically. OEM is a new-generation 2U 2-socket rack server designed for Internet, Internet Data Center (IDC), cloud computing, enterprise, and telecom applications. The OEM is ideal for IT core services, cloud computing, virtualization, high-performance computing, distributed storage, big data processing, enterprise or telecom service applications, and other complex workloads. The reliable OEM features low power consumption, high scalability, easy deployment, and simplified management. It also features built-in distributed storage engines and management software to enable on-demand resource allocation and linear expansion.

Features

High performance, fast service response

Better I/O-level performance: CPU multi-core optimization, intelligent cache prefetch, and intelligent I/O scheduling algorithms ensure low latency, meaning fast response to mission-critical services; high-bandwidth and low-latency networks over InfiniBand/RoCE offer high-speed data transmission; advanced technologies such as QoS optimization, resource pooling, elastic scaling, and linear capacity expansion provide precise performance control and on-demand supply to handle service workloads during peak hours; and the best-in-class distributed storage can be fully mounted with NV Me SSDs to deliver ultra-fast read and write, and offers stable performance (comparable to traditional high-end storage) to process heavy workloads — achieving the lowest cost per IOPS. The product is the perfect combination of performance, response, and scalability.

The server supports one or two third-generation Scalable processors, supports up to 32 memory modules. The CPUs (processors) interconnect with each other through three UPI links at a speed of up to 11.2 GT/s. The PCIe riser card connects to the processors through PCIe buses to provide ease of expandability and connection. CPU1 and CPU2 each support one OCP 3.0 network adapter. The screw-in RAID controller card on the mainboard connects to CPU 1 through PCIe buses, and connects to the drive backplane through SAS signal cables. A variety of drive backplanes are provided to support different local storage configurations. The LBG-R Platform Controller Hub (PCH) is integrated on the mainboard to support five USB 3.0 ports. The Hi1711 management chip integrated on the mainboard supports a video graphic array (VGA) port, a management network port, and a serial port.

A flexible capacity expansion and one-stop one-portal management of database resources, distributed storage, servers, and networks to slash O&M costs by half. What's more, service rollout is accelerated thanks to the fastest delivery of integrated hardware within one week, simplified installation within one day, and unified management interface.

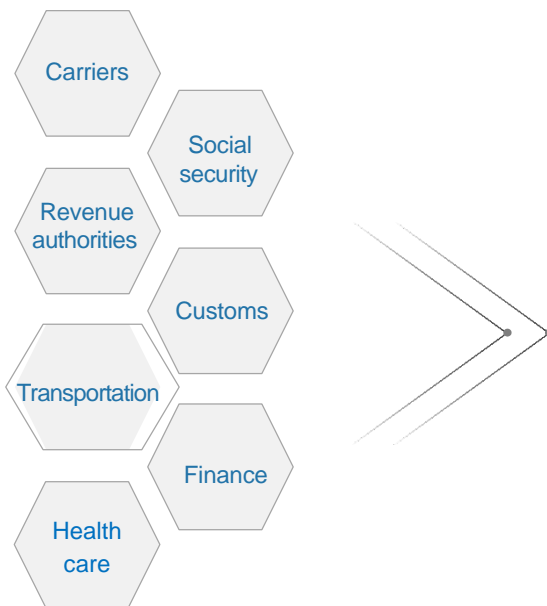
Application Scenarios

Digital transformation of enterprises

Currently, many enterprises use the conventional architecture of 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 architecture cannot support enterprise transformation, OEM released 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 others. Over the past seven years.

For customers who have moved to x86 systems, such large quantities of systems cause inefficient management and maintenance. The OEM product simplifies management while improving overall system performance and reliability. making it an ideal choice for customers looking to go digital.

Typical industries



Specifications

Cloud Vault 1000 Hardware Specifications

Cabinet Height	2 U
Processor	High-performance CPUs
Number of Disk Slots per Node	12/25
Number of DIMMSlots per Node	32
DIMM Specifications	16GB,32 GB 64 GB
Main Storage DiskType	SATA HDD/SAS HDD/SAS SSD
Max. Raw Capacity per Node	120 TB
Network Type	25GE, 10GE, GE TCP/IP, 16G FC,100G IB
Power Supply	900 W/2000 W AC PSU (input: 100–240 V AC or 240 V DC), Supports hot swap
Fan	Four hot-swappable counter rotating fan modules, supporting N+1 redundancy
System Capacity Expansion	Server capacity expansion and primary storage media capacity expansion

Management Software Features

Cloud Vault Meta Vision	VM management: creation, templates, and migration of VMs
	Storage management: disk and storage pool management
	Monitoring alarms: status, alarm, and performance monitoring, and system sub-health check
	Performance monitoring: IOPS, I/O bandwidth, I/O latency, CPU usage, memoryusage, and NICrate
	Log auditing: operation, system, and security logs
	System O&M: one-click capacity expansion, log collection, and health check
	System log collection: unified collection of logs generated from system servers, system OSs,scale-out storage, and management systems; up to two days of log collection intervals and amaximum of five-node concurrent collection
	System upgrade: online upgrade of the CloudVault MetaVision management system
	Management data backup: periodic management data backup of the scale-out storage andmanagement systems, ensuring timely recovery in the event of system failures
	Health check: covering servers, system OS, scale-out storage, and management system toidentify system risks and exceptions; periodic system inspection
	Storage management: disks and storage pools
	O&M monitoring: status, alarms, and performance
	Performance monitoring: IOPS, I/O bandwidth, I/O latency, CPU usage, memory usage, and NIC rate
	Log auditing: security, operation, and system logs
	System capacity expansion: one-click capacity expansion of storage and compute nodes
	System log collection: logs of system servers, system OSs, distributed storage, management systems, and Oracle databases
	System upgrade: non-disruptive upgrade of the Vision management system
	Management data backup: periodically backs up management data of distributed storage and management systems, ensuring rapid recovery in the event of a system failure.
	System health check: checks health of servers, system OSs, distributed storage, Oracle databases, and management systems, as well as identifies system risks and exceptions.