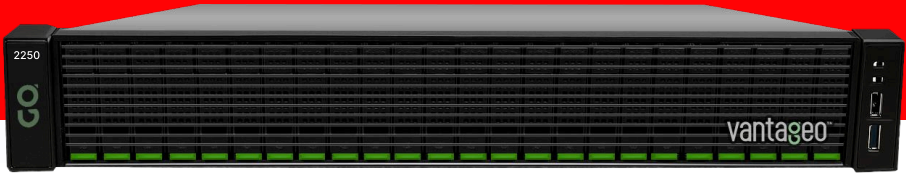


Vantageo 2250-RE

Flexible, Scalable, and Secure



Vantageo 2250-RE is a new-generation 2U 2-socket general rack server, which supports 2 Intel® Xeon® 4/5 generation scalable processor (Eagle Stream). Vantageo 2250-RE uses a high-density, modular, and streamline design. It features high capability, large capacity, high reliability, easy expansion, and easy management, which is widely applicable to interconnection, network, cloud computing, big data, and virtualization.

Overview

Vantageo 2250-RE is a highly versatile and powerful server designed for enterprise environments

Key Specifications

- Processor: Supports up to two 4/5th Generation Intel Xeon Scalable processors (Eagle Stream), with up to 64 cores per processor.
- Memory: Supports up to 32 DDR5 DIMM slots, capable of up to 8 TB of memory using 256 GB DDR5 memory modules. It also supports Persistent Memory (PMem) modules.
- Storage: Multiple storage options are available, including up to 24 Small Form Factor (SFF) or 12 Large Form Factor (LFF) drive bays, with support for SAS, SATA, and NVMe drives. The server can also support M.2 drives.
- Networking: OCP 3.0 slot for networking, providing options for 1GbE, 10GbE, 25GbE, and 100GbE network interfaces.
- Expansion Slots: Up to 20 PCIe 4.0 slots for expansion, allowing for various configurations of RAID controllers, GPUs, or additional networking cards.

- Power Supply: Redundant power supplies with options ranging from 550W/800W/1200W/1600W/2000W/2700W, depending on the configuration.
- Management: Integrated management port for server management, including remote management capabilities.
- Virtualization: Suitable for running multiple virtual machines (VMs) due to its high core count and memory capacity.

Vantageo 2250-RE

Supports standard interfaces such as IPMI, SNMP, and Redfish, so that the device can be integrated with third-party management systems.

Supports automatic deployment, firmware upgrade, and remote operations to improve deployment and O&M efficiency.

Processor:

- CPU Options: Supports up to two 4/5th Generation Intel Xeon Scalable processors (code-named Eagle Stream).
- Core Count: Up to 64 cores per processor.
- Cache: Up to 105 MB of L3 cache per processor.

Memory

- Memory Slots: 32 DIMM slots supporting DDR5 memory.
- Capacity: Supports up to 8 TB of total memory when using 256 GB DDR5 RDIMM modules.
- Memory Type: DDR5 at speeds of up to 5600 MT/s.

Storage:

- Provides a maximum of 45 2.5" slots or 20 3.5" slots + 4 2.5" slots
- Supports a maximum of 34 NVMe SSDs
- Supports a maximum of 40 E1.S and a maximum of 40 E3.S

Networking:

- OCP 3.0 slot providing a range of options, including 1GbE, 10GbE, 25GbE, and 100GbE adapters.
- Additional PCIe slots can be used for further network expansion.
- Security: Silicon Root of Trust, and runtime firmware validation to ensure data and system integrity.

Management

- Provides advanced server management features, including remote console access, virtual media, and power management.
- Integrated with Vantageo server manager for predictive analytics and automated management.
- Enhanced security with features like Secure Boot, Secure Erase etc...

Power Supplies:

- Supports 1+1 hot/swappable redundant power supplies (Optional)550W/800W/1200W/1600W/2000W/2700W, high-efficiency platinum/titanium power supply

Security Features

- Silicon Root of Trust: Ensures firmware and BIOS integrity by anchoring the server to the hardware.
- Runtime Firmware Validation: Continually verifies firmware integrity during operation.
- Vantageo Secure Recovery: Automatically restores firmware to a known good state in case of corruption.
- Secure Boot: Protects against unauthorized firmware and software from running during the boot process.



Vantageo 2250-RE		
Features	Technical Specification	
Form Factor	2U rack server	
Adaptable cabinet	19 inches ≥1,000mm-deep cabinet	
Chipset	Intel C741	
Processor	Supports 1/2 Intel® Xeon® 4th/5th-generation scalable processors (Eagle Stream), with up to 64 cores per processor with heatsink	
Memory slot	Supports 32 DDR5 memory slots with a maximum rate of 4800/5600MT/s	
Memory Protection	Advanced ECC	
Memory DIMMS Supports	16GB DDR5-4800/5600 32GB DDR5-4800/5600 64GB DDR5-4800/5600	128GB DDR5-4800/5600 256GB DDR5-4800/5600
Hard disk controller	Supports RAID 0/1/5/6/10/50/60 and power-off protection	
Raid Controller	PCIe SAS Raid Card 12Gbps 2Gb caches, support Raid, 0, 1, 5, 6, 10, 50 ,60 with battery backup PCIe SAS Raid Card 12Gbps 4Gb caches, support Raid, 0, 1, 5, 6, 10, 50 ,60 with battery backup PCIe SAS Raid Card 12Gbps 8Gb caches, support Raid, 0, 1, 5, 6, 10, 50 ,60 with battery backup(Supports NVMe) Raid controller cooling with heat sink	
Raid Manager	RAID Manager (command-line interface) BIOS Configuration Utility	
Key RAID Data Protection Feature	Online Capacity Expansion Online RAID level Migration Fast initialization for quick array setup Check consistency for background data integrity S.M.A.R.T support Global and dedicated Hot Spare with Revertible Hot Spare support Automatic rebuild Health Monitoring tool, Error indication alerts Multi Raid array Support	
Hard disk	Provides multiple front storage bays, hot swapping, HDDs, and SSDs. 45x2.5 slots, supporting SAS/SATA/ 20x3.5 slots+ 4x2.5 slots supporting SAS/SATA/ Support a maximum of 34 NVMe SSDs Support a maximum Of 40 E1.S and a maximum of 40 E3.S	
Display	Integrated display controller,supporting the optional configuration of PCIe standard display cards	
System management	Web Management interface Monitoring of critical components like Fan, Power ,CPU , HDD, Raid Telemetry details Support sending alarm notification securely to OEM / Personal for troubleshooting Vantageo Server Suite Provides Comprehensive	
PCIe slot	Supporting up to 20 PCIe expansion slots: 2 OCP dedicated slots, 18 PCIe standard slots	
Onboard Ports	2 OCP NIC 3.0	
External device interface	Five USB interfaces (two rear USB3.0 interfaces, one front USB3.0 interface, one internal USB2.0 interface, one front USB2.0 interface) Two VGA interfaces (one for front end and one back for end) One serial port	
Power	Supports 1+1 hot/swappable redundant power supplies. (Optional)550W/800W/1200W/1600W/2000W/2700W,high-efficiency platinum/titanium power supply Supports 110V/220V AC, 240V/336V high-voltage DC, and-48V DC.	

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Vantageo 2250-RE	
Features	Technical Specification
Security	TPM 2.0(Trusted Platform Module), Authenticated BIOS, secure Boot, Silicon Root of Trust, Disk Encryption, Hardware Root of Trust Sign firmware updates and bios core / Scan for malicious firmware Malicious core free design
BIOS	UEFI compliant BIOS Flash EPROM update by software BIOS settings save and restore Local BIOS update from USB device Secure boot support
Remote Management	Remote management supports hardware components, Power on/off and boot process. Supports Management log , Audit Logs and dedicated Management roles bases on users Ports can be integrate with industry wide KVM solution. Monitoring fan, power supply, memory, CPU, RAID, NIC for failures. Remote management supports telemetry streaming and Idle Server Detection. Supports Role Based Security through LDAP or Local and able to provide pre-failure alarms for CPU, Memory and HDD by SMTP.
Operating buttons	On/off switch ID button Reset button
Status LEDs	Power ON Customer self service Light path diagnostic led Hard disks access
Environment conditions	Operating temperature: +5 C to +40 C (depending on the configuration, refer to the technical document for details) Storage temperature: -40°C - 65°C Operating humidity: 8% 90% RH, no condensation Transportation and storage humidity: 5% 95% RH, no condensation Altitude: ≤3,000m, When the altitude is 900m higher, the operating temperatureis reduced by 1 C for every 300m higher. If the altitude is more than 3,000m, you cannot configure mechanical hard disks
System size	432mm x 87.6mm x 780mm (W x H x D)
Fan	Four groups of high-efficiency fans, N+1 redundancy, and intelligent heat dissipation system
Weight	40 kg in full configuration (excluding guide rails)
Supported Components	
CPU	CPU-Intel-Xeon Silver-4410T-10core-2.7GHz-150W-HeatSink CPU-Intel-Xeon Silver-4410Y-12core-2.0GHz-150W-HeatSink CPU-Intel-Xeon Silver-4416+ -20core-2.0GHz-165W-HeatSink CPU-Intel-Xeon Gold-5415+ -8core-2.9GHz-150W-HeatSink CPU-Intel-Xeon Gold-5418N-24core-1.8GHz-165W-HeatSink CPU-Intel-Xeon Gold-5420+ -28core-2.0GHz-205W-HeatSink CPU-Intel-Xeon Gold-5416S-16core-2.0GHz-150W-HeatSink CPU-Intel-Xeon Gold-5418Y-24core-2.0GHz-185W-HeatSink CPU-Intel-Xeon Gold-6438M-32core-2.2GHz-205W-HeatSink CPU-Intel-Xeon Gold-6438Y+ -32core-2.0GHz-205W-HeatSink CPU-Intel-Xeon Gold-6426Y-16core-2.5GHz-185W-HeatSink CPU-Intel-Xeon Gold-6430-32core-2.1GHz-270W-HeatSink

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Vantageo 2250-RE

Features	Technical Specification
	CPU-Intel-Xeon Gold-6438N-32core-2.0GHz-205W-HeatSink
	CPU-Intel-Xeon Gold-6428N-32core-1.8GHz-185W-HeatSink
	CPU-Intel-Xeon Gold-6448Y-32core-2.1GHz-225W-HeatSink
	CPU-Intel-Xeon Gold-6434-8core-3.7GHz-195W-HeatSink
	CPU-Intel-Xeon Gold-6442Y-24core-2.6GHz-225W-HeatSink
	CPU-Intel-Xeon Gold-6444Y-16core-3.6GHz-270W-HeatSink
	CPU-Intel-Xeon Platinum-8468V-48core-2.4GHz-330W-HeatSink
	CPU-Intel-Xeon Platinum-8458P-44core-2.7GHz-350W-HeatSink
	CPU-Intel-Xeon Platinum-8460Y+ -40core-2.0GHz-300W-HeatSink
	CPU-Intel-Xeon Platinum-8462Y+ -32core-2.8GHz-300W-HeatSink
	CPU-Intel-Xeon Platinum-8452Y-36core-2.0GHz-300W-HeatSink
	CPU-Intel-Xeon Platinum-8470N-52core-1.7GHz-300W-HeatSink
	CPU-Intel-Xeon Platinum-8470-52core-2.0GHz-350W-HeatSink
	CPU-Intel-Xeon Platinum-8480+ -56core-2.0GHz-350W-HeatSink
	CPU-Intel-Xeon Platinum-8468-48core-2.1GHz-350W-HeatSink
	CPU-Intel-Xeon Gold-5515+ -8core-3.2GHz-165W-HeatSink
	CPU-Intel-Xeon Gold-5520+ -28core-2.2GHz-205W-HeatSink
	CPU-Intel-Xeon Gold-6416H-18Core-2.2GHz-165W-HeatSink
	CPU-Intel-Xeon Gold-6418H-24Core-2.1GHz-185W-HeatSink
	CPU-Intel-Xeon Gold-6433N-32core-2.0GHz-205W-HeatSink
	CPU-Intel-Xeon Gold-6434H-8Core-3.7GHz-195W-HeatSink
	CPU-Intel-Xeon Gold-6443N-32core-2.0GHz-195W-HeatSink
	CPU-Intel-Xeon Gold-6448H-32core-2.4GHz-250W-HeatSink
	CPU-Intel-Xeon Gold-6526Y-16core-2.8GHz-195W-HeatSink
	CPU-Intel-Xeon Gold-6530-32core-2.1GHz-270W-HeatSink
	CPU-Intel-Xeon Gold-6530-32core-2.1GHz-270W-HeatSink
	CPU-Intel-Xeon Gold-6534-8core-3.9GHz-195W-HeatSink
	CPU-Intel-Xeon Gold-6538N-32core-2.1GHz-205W-HeatSink
	CPU-Intel-Xeon Gold-6538Y+ -32core-2.2GHz-225W-HeatSink
	CPU-Intel-Xeon Gold-6542Y-24core-2.9GHz-250W-HeatSink
	CPU-Intel-Xeon Gold-6544Y-16core-3.6GHz-270W-HeatSink
	CPU-Intel-Xeon Gold-6548N-32core-2.8GHz-250W-HeatSink
	CPU-Intel-Xeon Gold-6548Y+ -32core-2.5GHz-250W-HeatSink
	CPU-Intel-Xeon Gold-6554S-36core-2.2GHz-270W-HeatSink
	CPU-Intel-Xeon Platinum-8444H-16Core-2.9GHz-270W-HeatSink
	CPU-Intel-Xeon Platinum-8450H-28Core-2.0GHz-250W-HeatSink
	CPU-Intel-Xeon Platinum-8454H-32Core-2.1GHz-270W-HeatSink
	CPU-Intel-Xeon Platinum-8460H-40Core-2.2GHz-330W-HeatSink
	CPU-Intel-Xeon Platinum-8468H-48Core-2.1GHz-330W-HeatSink
	CPU-Intel-Xeon Platinum-8490H-60Core-1.9GHz-350W-HeatSink
	CPU-Intel-Xeon Platinum-8558-48core-2.1GHz-330W-HeatSink
	CPU-Intel-Xeon Platinum-8558P-48core-2.7GHz-350W-HeatSink
	CPU-Intel-Xeon Platinum-8562Y+ -32core-2.8GHz-300W-HeatSink
	CPU-Intel-Xeon Platinum-8568Y+ -48core-2.3GHz-350W-HeatSink
	CPU-Intel-Xeon Platinum-8570-56core-2.1GHz-350W-HeatSink

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Vantageo 2250-RE

Features	Technical Specification
	CPU-Intel-Xeon Platinum-8580-60core-2.0GHz-350W-HeatSink CPU-Intel-Xeon Platinum-8592+ -64core-1.9GHz-350W-HeatSink CPU-Intel-Xeon Platinum-8592V-64core-2.0GHz-330W-HeatSink CPU-Intel-Xeon Silver-4509Y-8core-2.6GHz-125W-HeatSink CPU-Intel-Xeon Silver-4510-12core-2.4GHz-150W-HeatSink CPU-Intel-Xeon Silver-4510T-12core-2.0GHz-115W-HeatSink CPU-Intel-Xeon Silver-4514Y-16core-2.0GHz-150W-HeatSink CPU-Intel-Xeon Silver-4516Y+ -24core-2.2GHz-185W-HeatSink
SAS HDD	HDD-600GB-SAS-2.5"-10K-12Gb/s-2.5-inch hard disk box HDD-1.2TB-SAS-2.5"-10K-12Gb/s-TOSHIBA-2.5-inch hard disk box HDD-1.8TB-SAS-2.5"-10K-12Gb/s-2.5-inch hard disk box HDD-2.4TB-SAS-2.5"-10K-12Gb/s-2.5-inch hard disk box HDD-1.2TB-SAS-2.5"-10K-12Gb/s-TOSHIBA-3.5-inch hard disk box HDD-12TB-SAS-3.5"-7.2K-12Gb/s-3.5-inch hard disk box HDD-1.8TB-SAS-2.5"-10K-12Gb/s-3.5-inch hard disk box HDD-2.4TB-SAS-2.5"-10K-12Gb/s-3.5-inch hard disk box HDD-4TB-SAS-3.5"-7.2K-12Gb/s-WD-3.5-inch hard disk box HDD-600GB-SAS-2.5"-10K-12Gb/s-SEAGATE-2.5-inch hard disk box HDD-600GB-SAS-2.5"-10K-12Gb/s-SEAGATE-3.5-inch hard disk box HDD-600GB-SAS-2.5"-10K-12Gb/s-3.5-inch hard disk box
SATA HDD	HDD-12TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box HDD-14TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box HDD-16TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box HDD-16TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box HDD-20TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box HDD-2TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box HDD-4TB-SAS-3.5"-7.2K-12Gb/s-WD-3.5-inch hard disk box HDD-4TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box HDD-8TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box HDD-8TB-SATA-3.5"-7.2K-6Gb/s-3.5-inch hard disk box
SSD SATA	SSD-480GB-SATA-2.5"-6Gb/s-Intensive read type-Samsung PM893-2.5-inch hard disk box SSD-960GB-SATA-2.5"-6Gb/s-Intensive read type-Samsung PM893-2.5-inch hard disk box SSD-1.92TB-SATA-2.5"-6Gb/s-Intensive read type-Samsung PM893-2.5-inch hard disk box SSD-1.92TB-SATA-2.5"-6Gb/s-Intensive read type-Samsung PM893-3.5-inch hard disk box SSD-240GB-SATA-2.5"-6Gb/s-Intensive read type-Intel S4510-2.5-inch hard disk box SSD-240GB-SATA-2.5"-6Gb/s-Intensive read type-Intel S4510-3.5-inch hard disk box SSD-3.84TB-SATA-2.5"-6Gb/s-Read-write hybrid-Samsung PM897-2.5-inch hard disk box SSD-3.84TB-SATA-2.5"-6Gb/s-Read-write hybrid-Samsung PM897-3.5-inch hard disk box SSD-3.84TB-SATA-2.5"-6Gb/s-Intensive read type-Intel S4520-2.5-inch hard disk box SSD-3.84TB-SATA-2.5"-6Gb/s-Intensive read type-Intel S4520-3.5-inch hard disk box SSD-480GB-SATA-2.5"-6Gb/s-Read-write hybrid-Samsung PM897-2.5-inch hard disk box SSD-480GB-SATA-2.5"-6Gb/s-Read-write hybrid-Samsung PM897-3.5-inch hard disk box SSD-480GB-SATA-2.5"-6Gb/s-Intensive read type-Samsung PM893-3.5-inch hard disk box SSD-480GB-SATA-M.2-2280-6Gb/s-Intensive read type-Intel S4520 SSD-480GB-SATA-M.2-2280-6Gb/s-Intensive read type-Micron SSD-7.68TB-SATA-2.5"-6Gb/s-Intensive read type-Intel S4520-2.5-inch hard disk box SSD-7.68TB-SATA-2.5"-6Gb/s-Intensive read type-Intel S4520-3.5-inch hard disk box SSD-960GB-SATA-2.5"-6Gb/s-Read-write hybrid-Intel S4620-2.5-inch hard disk box SSD-960GB-SATA-2.5"-6Gb/s-Read-write hybrid-Intel S4620-3.5-inch hard disk box SSD-960GB-SATA-2.5"-6Gb/s-Intensive read type-Samsung PM893-3.5-inch hard disk box SSD-960GB-SATA-M.2-2280-6Gb/s-Intensive read type-Micron

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Vantageo 2250-RE	
Features	Technical Specification
NVME SSD	SSD-1.92TB-NVMe PCIe-2.5"-PCIE 4.0*4-Intensive read type-Samsung PM9A3-2.5-inch hard disk box SSD-7.68TB-NVMe PCIe-2.5"-PCIE 4.0*4-Intensive read type-Samsung PM9A3-2.5-inch hard disk box SSD-960GB-NVMe PCIe-2.5"-PCIE 4.0*4-Intensive read type-Samsung PM9A3-2.5-inch hard disk box SSD-1.6TB-NVMe PCIe-2.5"-PCIE 4.0*4-Read-write hybrid-Intel P5620-2.5-inch hard disk box SSD-1.6TB-NVMe PCIe-2.5"-PCIE 4.0*4-Read-write hybrid-Intel P5620-3.5-inch hard disk box SSD-1.92TB-NVMe PCIe-2.5"-PCIE 4.0*4-Intensive read type-Samsung PM9A3-3.5-inch hard disk box SSD-960GB-NVMe PCIe-2.5"-PCIE 4.0*4-Intensive read type-Samsung PM9A3-3.5-inch hard disk box
Fibre Channel Card	PCle FC HBA-LPE31002-2x16G SFP+ -PCle3.0x8-with optical module PCle FC HBA-LPe32002-2x32G SFP+ -PCle3.0x8-with optical module
NIC card	PCIE NIC-I350-Intel-2x1G-RJ45-PCle3.0x8 PCIE NIC-I350-Intel-4x1G-RJ45-PCle3.0x8 PCIE NIC-MCX512A-ACAT-Mellanox CX5-2x25G SFP28-PCle3.0x8-no optical module PCIE NIC-X710-Intel-2x10G-RJ45-PCle3.0x8 PCle NIC-NS312-Mellanox CX4-2x25G SFP28-PCle3.0x8-no optical module PCIE NIC-MCX512A-ACUT-Mellanox CX5-2x25G SFP28-PCle3.0x8-no optical module PCIE NIC-MCX623106AN-CDAT-Mellanox CX6-2x100G QSFP56-PCle4.0x16-no optical module PCIE NIC-XXV710-Intel-2x25G SFP28-PCle3.0x8-no optical module
Certified or supported operating system & virtualization Software	Compatible with mainstream server operating systems: Microsoft Windows Sever - 2022 Datacenter Microsoft Windows Sever - 2019 Datacenter Microsoft Windows Sever - 2022 Standard Microsoft Windows Sever - 2019 Standard Microsoft-Hyper V Red Hat Enterprise Linux 9.0 - 9.x Red Hat Enterprise Linux 8.6 - 8.x Red Hat Enterprise Linux 8.4 LTS, 8.5 and Late Red Hat Open stack 17.0 - 17.X Red Hat Openshift Virtualization Red Hat Openshift Kubernetes Open Source Linux KVM SUSE Linux Enterprise Server 15 SP3 and Later SUSE Linux Enterprise Server 15.5 Virtualization (KVM and XEM) Ubuntu Server 21.10 & 22.04 LTS and Later VMWare vSphere 8.0 VMWare vSphere 7.0

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