

IP-03R-NVR4B1U-BLADE

High-performance modular compute sled with exceptional scale

Wavesys Blade server IP-03R-NVR4B1U-BLADE is the latest addition to the Wavesys hardware infrastructure ecosystem, is a fully featured, high-performance, modular compute sled for exceptional scalability.



Innovate at scale enabling sophisticated and emerging workloads for a transformational experience

A fully configurable single-width compute sled powered by up to two-40 core 3rd Generation Intel® Xeon® Scalable processors. Each IP-03R-NVR4B1U-BLADE supports 32 DDR4 DIMM slots and up to six 2.5-inch SAS/SATA (HDD/SDD) or Express Flash NVMe PCIe SSDs drives. A maximum of eight MX750c servers can be installed in the PowerEdge MX7000 chassis.

- Flexible memory configurations from capacities of up to 4 TB
- Supports up to 16 slots for Second Generation Intel® Optane™ DC persistent memory DCPMM
- Choice of optional M.2 Boot Optimized Storage Solution (BOSS) or Internal Dual microSD Module (IDSDM), to streamline operating system and data storage
 - Option of Express Flash NVMe PCIe SSD for high performing direct attached storage requirements This makes the PowerEdge MX750 an ideal server for organizations:
- looking for leading-edge performance for virtualization, containers, software-defined storage and software-defined networking and database analytics
- seeking to commit to wavesys's vision that leads toward Composable Disaggregated Infrastructure (CDI)
- invested in PowerEdge MX who desire leading-edge compute, memory and I/O capabilities that include an end-to-end uniquely managed experience

Increase efficiency and accelerate operations with autonomous collaboration

The Wavesys Server OpenManage systems management portfolio tames the complexity of managing and securing IT infrastructure. OpenManage Enterprise – Modular is specifically designed to enable customers that enjoy the benefits of a multi-chassis management approach found uniquely in the MX solution.

end-to-end tools, IT can deliver a secure, integrated experience by reducing process and information silos in order to focus on growing the business. The Wavesys Server OpenManage portfolio is the key to your innovation engine, unlocking the tools and automation that help you scale, manage, and protect your technology environment.

- Built-in telemetry streaming, thermal management, and RESTful API with Redfish offer streamlined visibility and control for better server management
- Intelligent automation lets you enable cooperation between human actions and system capabilities for added productivity
- Integrated change management capabilities for update planning and seamless, zero-touch configuration and implementation
- Full-stack management integration with Microsoft, VMware, ServiceNow, Ansible and many other tools

Spec Sheet



Protect your data assets and infrastructure with proactive resilience

The Wavesys Server IP-03R-NVR4B1U-BLADE server is designed with a cyber-resilient architecture, integrating security deeply into every phase in the lifecycle, from design to retirement.

- Operate your workloads on a secure platform anchored by cryptographically trusted booting and silicon root of trust
- Maintain server firmware safety with digitally signed firmware packages
- Prevent unauthorized configuration or firmware change with system lockdown. Securely and quickly wipe all data from storage media, including hard drives, SSDs and system memory with System Erase

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The Wavesys Server IP-03R-NVR4B1U-BLADE offers compelling compute-density, improved performance and value for:

- General purpose IT, virtualization, containerization,
- Software-defined storage and networking
- Database analytics

Feature	Technical Specifications	
Processor	Up to two 3rd Generation Intel Xeon Scalable processors, with up to 40 cores per processor Intel C620 series chipset with optional Intel QuickAssist Technology	
Memory	32 DDR4 DIMM slots, supports RDIMM max 2 TB or LRDIMM max 4 TB, speeds up to 3200 MT/s	
Persistent Memory	Supports up to 16 Intel Persistent Memory 200 series (BPS) slots with a maximum total capacity of 7.68 TB per sled	
Availability	Supports registered ECC DDR4 DIMMs only	
Controllers	<ul style="list-style-type: none"> • Internal controllers: PERC H755 MX, PERC H745P MX, HBA350i MX, S150 • Boot Optimized Storage Subsystem (BOSS-S1): HWRaid 2 x M.2 SSDs 240 GB or 480 GB or Internal Dual SD Module (IDSDM) or USB • External PERC (RAID): PERC H745P MX • External HBAs (non-RAID): HBA330 MMZ 	
Drive Bays	Front bays: <ul style="list-style-type: none"> • Up to 4 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) 7.68 TB per drive • Up to 6 x 2.5-inch SAS/SATA/NVMe (HDD/SSD) 7.68 TB per drive 	
Power Supplies	MX7000 chassis: Up to six 3000 W AC Platinum PSU and grid redundancy support	
Fans	MX7000 chassis: 5 rear and 4 front-accessible hot-swap fans with full redundancy	
Dimensions	Height: 42.15 mm (1.65 inches) Width: 250.2 mm (9.85 inches) Depth: 594.99 mm (23.42 inches)	
Form Factor	Up to 8 independent hot-swappable, 1U single-width compute sled in a MX7000 chassis	
Embedded Management	MX7000 chassis: OpenManage Enterprise Modular Edition (OME-Modular); <ul style="list-style-type: none"> • Up to 2 redundant MX9002m management modules • Unified control: single management point for server, storage, and networking • Intelligent automation: Operational template methodology and comprehensive RESTful API • Quick Sync 2 Bluetooth Low Energy (BLE)/wireless module On compute sled: <ul style="list-style-type: none"> • iDRAC9 • iDRAC Direct • iDRAC Service Module 	
OpenManage Software	<ul style="list-style-type: none"> • OpenManage Enterprise • OpenManage Power Manager plugin • OpenManage SupportAssist plugin • OpenManage Update Manager plugin • OpenManage Enterprise Modular Edition 	
Integrations and Connections	OpenManage Integrations <ul style="list-style-type: none"> • BMC Truesight • Microsoft System Center • Red Hat Ansible Modules • VMware vCenter and vRealize Operations Manager 	OpenManage Connections <ul style="list-style-type: none"> • IBM Tivoli Netcool/OMNibus • IBM Tivoli Network Manager IP Edition • Micro Focus Operations Manager i • Nagios Core • Nagios XI
Integrated Security	<ul style="list-style-type: none"> • TPM 1.2/2.0 FIPS, CC-TCG certified • Digitally Signed Firmware • Chassis Intrusion Alert • Secure Boot • Secure Erase • Silicon Root of Trust • System Lockdown (requires iDRAC Enterprise or Datacenter) 	

Spec Sheet



Networking_Options (NDC)	MX7000 chassis Fabric options: up to 2 pairs redundant general purpose switch or passthrough modular bays (Fabrics A and B); redundant pair of storage specific switch bays (Fabric C) Up to 25 Gb CNA/NIC per port for Mezz A/B, 32 Gb Fibre Channel, 12 Gbps SAS for Mezz C	
Ports	Front ports <ul style="list-style-type: none"> • 1 x iDRAC Direct port (Micro-AB USB) • 1 x USB 3.0 	Internal port <ul style="list-style-type: none"> • 1 x USB 3.0
PCIe	<ul style="list-style-type: none"> • One x16 PCIe Gen4 slot for Mezz A – connected to processor 1 • One x16 PCIe Gen4 slot for Mezz B – connected to processor 2 • One x16 PCIe Gen4 slot for Mini Mezz card – connected to processor 2 • One x16 PCIe Gen4 slot for PERC – connected to processor 1 • Two x8 PCIe Gen4 connectors for NVMe drive – connected to processor 1 • One x8 PCIe Gen4 connectors for NVMe drive – connected to processor 2 • Two x4 PCIe Gen3 slot for BOSS M.2 HW RAID card – connected to Platform Controller Hub (PCH) 	
Operating Systems and Hypervisors	<ul style="list-style-type: none"> • Canonical Ubuntu Server LTS • Citrix Hypervisor • Microsoft Windows Server with Hyper-V • Red Hat Enterprise Linux • SUSE Linux Enterprise Server • VMware ESXi/vSAN 	

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