



Dell EMC PowerEdge R640 and R630 server comparison matrix

The PowerEdge R640 system has the following features compared with the R630 system.

Feature	PowerEdge R640	PowerEdge R630
Processor	Up to two 2nd Generation Intel® Xeon® Scalable processors with up to 28 cores per processor	Up to two Intel® Xeon® processor E5-2600 v4 product family with up to 22 cores per processor
Chipset	Intel® C620 series chipset	Intel® C610 series chipset
Accelerators	Up to one single-width FPGA	NA
	Up to three single-width GPU (NVIDIA T4)	NA
Memory		
DIMM Speed	Up to 2933MT/s	Up to 2400MT/s
Memory Type	<ul style="list-style-type: none"> RDIMM LRDIMM NVDIMM DCPMM (Intel® Optane™ DC persistent memory) 	<ul style="list-style-type: none"> RDIMM LRDIMM
Memory Module Slots	24 DDR4 DIMM slots (12 NVDIMM or 12 DCPMM only) NOTE: Supports registered ECC DDR4 DIMMs only.	24 DDR4 DIMM slots
Maximum RAM	RDIMM 1.53TB	RDIMM 786GB
	LRDIMM 3TB	LRDIMM 1.5TB
	NVDIMM 192GB	
	DCPMM 6.14TB (7.68TB with LRDIMM)	
Storage		
Front Bays	Up to 10 x 2.5" with up to 8 NVMe, SAS/SATA/SSD/NVMe, max 76.8TB	Up to 24 x 1.8" SATA/SSD, max 23TB
	Up to 10 x 2.5" NVMe drives, max 64TB	Up to 10 x 2.5" with up to 4 NVMe, SAS/SATA, max 18TB
	Up to 4 x 3.5" SAS/SATA, max 56TB	Up to 8 x 2.5" SAS/SATA, max 14TB
Rear Bays	Up to 2 x 2.5" SAS/SATA/SSD/NVMe, max 15.36TB	
Storage Controllers		
Internal Controllers	<ul style="list-style-type: none"> HBA330 H330 H730P H740P 	<ul style="list-style-type: none"> H330 H730 H730P

Feature	PowerEdge R640	PowerEdge R630
External Controllers	<ul style="list-style-type: none"> · H840P · 12Gbps SAS HBA 	<ul style="list-style-type: none"> · H830 · 12Gbps SAS HBA
Software RAID	S140	S130
Internal Boot	Boot Optimized Storage Subsystem (BOSS): HW RAID 2 x M.2 SSDs 120GB or 240GB	NA
	Internal USB	Internal USB
	Internal Dual SD Module and vFlash*  NOTE: *ESXi (only OS supported)	Internal Dual SD Module and vFlash*  NOTE: *ESXi (only OS supported)
Operating Systems	<ul style="list-style-type: none"> · Canonical® Ubuntu® Server LTS · Citrix® Hypervisor® · Microsoft® Windows Server® with Hyper-V · Oracle® Linux · Red Hat® Enterprise Linux · SUSE® Linux Enterprise Server · VMware® ESXi® 	<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®
Security	Cryptographically signed firmware	Cryptographically signed firmware
	Secure Boot	Secure Erase
	Secure Erase	
	Silicon Root of Trust	System Lockdown (requires iDRAC Enterprise)
	System Lockdown (requires iDRAC Enterprise)	
	TPM 1.2/2.0, TCM 2.0 (optional)	TPM 1.2/2.0, TCM 2.0 (optional)
Management		
Embedded/At-the-Server	iDRAC9	iDRAC8 with Lifecycle controller
	iDRAC RESTful API with Redfish	iDRAC RESTful API with Redfish
	iDRAC Direct	iDRAC Direct
	Quick Sync 2 BLE/wireless module	iDRAC Quick Sync
Consoles	OpenManage Enterprise	OpenManage Essentials
	OpenManage Enterprise Power Manager	OpenManage Enterprise Power Manager
Mobility	OpenManage Mobile	OpenManage Mobile
Tools	Dell EMC RACADM CLI	Dell EMC RACADM CLI
	Dell EMC Repository Manager	Dell EMC Repository Manager
	Dell EMC System Update	Dell EMC System Update
	Dell EMC Server Update Utility	Dell EMC Server Update Utility
	Dell EMC Update Catalogs	Dell EMC Update Catalogs
	iDRAC Service Module	iDRAC Service Module
	IPMI Tool	IPMI Tool
	OpenManage Server Administrator	OpenManage Server Administrator
OpenManage Integrations	BMC Truesight	Microsoft® System Center

Feature	PowerEdge R640	PowerEdge R630
	Microsoft® System Center	
	RedHat® Ansible® Modules	VMware® vCenter
	VMware® vCenter	
OpenManage Connections	IBM Tivoli® Netcool/OMNibus	IBM Tivoli® Netcool/OMNibus
	IBM Tivoli® Network Manager IP Edition	HP Operations Manager
	Micro Focus® Operations Manager I	Dell OpenManage Plug-in for Oracle® Database Manager
	Nagios® Core	
	Nagios® XI	
Power Supply	495W AC Platinum	495W AC Platinum
	750W AC Platinum/Titanium	750W AC Platinum/Titanium
	750W 240V HVDC Platinum	750W 240V HVDC Platinum
	1100W AC Platinum	1100W AC Platinum
	1100W 380V HVDC Platinum	1100W 380V HVDC Platinum
	1100W 48VDC Gold	
	1600W AC Platinum	
	Up to 8 fans with full redundancy	Up to 6 fans with full redundancy
Ports		
Network Options	4 x 1GbE	4 x 1GbE
	2 x 10GbE + 2 x 1GbE	2 x 10GbE + 2 x 1GbE
	4 x 10GbE	4 x 10GbE
	2 x 25GbE	
Front Ports	1 x Dedicated iDRAC micro-USB	1 x Dedicated iDRAC USB Type A
	1 x USB 2.0	1 x USB 2.0
	1 x VGA	1 x VGA
Rear Ports	4 x 1GbE	4 x 1GbE
	1 x Dedicated iDRAC network	1 x Dedicated iDRAC network
	1 x Serial	1 x Serial
	2 x USB 3.0	2 x USB 3.0
	1 x VGA	1 x VGA
Internal Ports	1 x USB 3.0	1 x USB 3.0
Slots		
PCIe	3 x Gen3 slots (x16)	3 x Gen3 slots (x16)
Video Card	1 x VGA	1 x VGA
Bezel	Optional LCD bezel or security bezel	Optional LCD bezel or security bezel
Form Factor	1U Rack Server	1U Rack Server
Dimensions and Weight		
Height	42.8mm (1.69")	42.8mm (1.69")
Width	482.0mm (18.98")	482.0mm (18.98")

Feature	PowerEdge R640	PowerEdge R630
Depth	808.5mm (31.8")	755.1mm (29.72")
Weight	21.9kg (48.3lbs.)	17.4kg (38.36lbs)

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