**DELL EMC**

# DELL EMC POWEREDGE OEM R640 CARRIER GRADE

As IT and Operational Technologies converge, communications service providers are evaluating their infrastructures as they face into the cutting edge of the digital transformation. Dell EMC is uniquely positioned to help both service providers and network equipment providers (NEPs) succeed. By working closely with customers to fully understand their needs, Dell EMC delivers partnership and collaboration to our customers, globally.

## Telecom server solution

NEBS compliance is an important requirement in your environment. As a recognized global leader in enterprise platforms, Dell OEM Solutions offers NEBS Level-3 and ETSI compliant PowerEdge™ Carrier Grade Servers running on Intel® Xeon® Processors at world class high standards of stability and global availability. Our rack mount systems are designed to deliver high performance, maximum scalability, and safe and reliable service.

Dell EMC's 14th Generations PowerEdge Carrier Grade Servers for OEM offer:

- Open standard systems.
    - Improved compatibility based on industry-leading Dell EMC products
    - Rapidly scalable and easily expandable
    - Image compatibility with standard, OEM Ready and OEM XL product equivalents reduces development, validation and support
- Industry standards Solutions.
    - Validated to NEBS Level 3 standards (GR-63 and GR-1089) and various ETSI standards
    - Enabled for operation in warmer environments than traditional data centers
    - Designed for extreme conditions such as high humidity, earthquakes and dust
- Global regulatory support and availability.

## Service and support

Bring your game-changing innovations to market fast with our services, including design, manufacture, fulfillment and global support. We'll help you refine a product or design new products with the right services, so you can focus on your IP. Choose from services that can help you:

- Conduct applications testing on our hardware.
- Integrate hardware, image, applications, peripheral and documents as your systems are built.
- Consolidate, stage, deliver and support your orders globally.
- Provide your customers with the support they need, anything, anywhere with more than 30,000 Dell employees in tech support, parts and field services in more than 100 countries.

## Additional Features

- Combine density, performance and scalability to optimize application performance.
- Manage your clients more efficiently with industry-leading support.
- Simplify the distribution and maintenance of customized BIOS settings with Identity Module.
- Plan your resources and manage your product lifecycles better with Dell EMC's latest XL program, offering enhanced predictability around your hardware configurations.
- Ensure server security from factory to you.
    - Rely on a secure component supply chain to ensure protection from factory to the data center.
    - Maintain data safety with cryptographically signed firmware packages and Secure Boot.
    - Prevent unauthorized or malicious change with Server Lockdown.
    - Wipe all data from non-volatile media including hard drives, SSDs and system memory quickly and securely with SystemErase.

**PowerEdge R640 Carrier Grade**

- NEBS Level 3 and ETSI validated

- Commercial off the shelf hardware with OEM-specific features

- Comprehensive, global availability, service and support

## PowerEdge OEM R640 Carrier Grade

| Feature | Technical Specification |
|---|---|
| **Processor**<br>Available for entire lifecycle<br><br>2x up to 150W Intel®<br>Xeon® SP processors: | Intel Xeon Gold 6148 / Intel Xeon Gold 6142 / Intel Xeon Gold 6140 / Intel Xeon Gold 6138 / Intel Xeon Gold 6136 / Intel Xeon Gold 6134 / Intel Xeon Gold 6132 / Intel Xeon Gold 6128 / Intel Xeon Gold 6126    Intel Xeon Gold 5122 / Intel Xeon Gold 5120T / Intel Xeon Gold 5118 / Intel Xeon Gold 5115 / Intel Xeon Silver 4116 / Intel Xeon Silver 4114 / Intel Xeon Silver 4112 / Intel Xeon Silver 4110 / Intel Xeon Bronze 3106    Intel Xeon Gold 6252 / Intel Xeon Gold 6248 / Intel Xeon Gold 6242 / Intel Xeon Gold 6240 / Intel Xeon Gold 6238 / Intel Xeon Gold 6234 / Intel Xeon Gold 6230/N / Intel Xeon Gold 6226 / Intel Xeon Gold 5218    Intel Xeon Gold 5215 / Intel Xeon Silver 4216 / Intel Xeon Silver 4215 / Intel Xeon Silver 4214/Y / Intel Xeon Silver 4210 / Intel Xeon Gold 6258R / Intel Xeon Gold 6230R / Intel Xeon Gold 6226R / Intel Xeon Gold 5220R / Intel Xeon Gold 5218R / Intel Xeon Silver 4214R |
| **Memory[1]** | 24 DDR4 DIMM slots supporting RDIMM, speeds up to 3200, 768GB max<br>8GB, 16GB, 32GB capacities supported |
| **Storage controllers** | Internal controllers: PERC H330, PERC H730p, PERC H740p, Software RAID S140<br>External PERC: H840 |
| **Drive bays** | **Front drive bays**: Up to 10 x 2.5" SAS HDD, or SAS or SATA SSD, max 38TB<br>Up to 4 x 3.5" SAS HDD, max 40TB<br>**Rear bays**: Up to 2 x 2.5" SSD, max 7.6TB |
| **Power supplies** | Titanium redundant hot swap 1100W DC or 1100W AC power supplies |
| **Sizing** | Form factor: Rack (1U)      Chassis depth: 705.05 mm |
| **Embedded management** | IPMI 2.0 compliant<br>iDRAC9 with Lifecycle Controller (Express, Enterprise) |
| **Bezel** | Filtered, Dell EMC branded |
| **Identity Module** | Carrier Grade thermal tables/fan algorithms, Carrier Grade SMBIOS strings |
| **OpenManage™ Software** | OpenManage Enterprise<br>OpenManage Essentials      OpenManage Mobile<br>OpenManage Power Center |
| **Integrations and connections** | Integrations: Microsoft® System Center, VMWare® vCenter™, BMC Software<br>Connections: Nagios & Nagios XI, Oracle Enterprise Manager      HP Operations Manager<br>IBM Tivoli® Netcool/OMNIbus<br>IBM Tivoli® Network Manager,<br>CA Network and Systems Management |
| **Security** | TPM 1.2/2.0 optional<br>Cryptographically signed firmware<br>Secure Boot      System Lockdown<br>Secure Erase |
| **Embedded NIC Options** | Network daughter card options: Intel(R) 4P X550 rNDC<br>Intel(R) Ethernet 10G 4P X710/I350 rNDC<br>Intel(R) Ethernet 10G 4P X710 SFP+ rNDC<br>Intel(R) Gigabit 4P X550/I350 rNDC<br>Intel i350 4x1GbE NDC      Mellanox ConnectX-4 Lx Dual Port 25GbE DA/SFP rNDC<br>Intel(R) Ethernet 10G 4P X710/I350 rNDC<br>Broadcom 5720 QP 1Gb, NDC<br>Broadcom 57416 2 Port 10Gb Base-T + 5720 2 Port 1Gb Base-T, NDC |
| **I/O Adapter Options** | Additional network card options:<br>Intel(R) Ethernet Converged Network Adapter XL710-Q2<br>Broadcom BCM57416 10G BT Dual Port PCIE adapter<br>Intel(R) 10GbE 4P X710-t Adapter<br>Broadcom BCM57414 25G SFP Dual Port PCIE adapter<br>Intel(R) Ethernet Converged Network Adapter X710 - Dual Port<br>Intel(R) Ethernet 10G 2P X550-t Adapter<br>Intel(R) Ethernet Converged Network Adapter X710 - Quad Port<br>Broadcom BCM57412 10G SFP Dual Port PCIE adapter<br>Broadcom 5719 QP 1G ADAPTER<br>Mellanox 40GbE NIC, Full Height<br>Mellanox 100GbE NIC, Full Height<br>Intel XXV710 DP 25G 2P SFP28, Full height      Mellanox 25GbE NIC, Full Height<br>Intel 10GbE 10G 2P X550-T adapter, Full Height<br>Intel XL710 4x40GbE, Low Profile<br>Intel(R) Gigabit 4P I350-t Adapter<br>Qlogic FastLinQ 41164 QP 10GbE SFP+<br>Qlogic 10GE 2p QL41112HxCU-DE Adapter<br>Mellanox ConnectX-5 DP 100GbE, 14G<br>Broadcom 5720 DP 1Gb<br>Intel i350 DP 1Gb<br>Mellanox ConnectX-3 Pro DP 10GbE SFP+<br>Qlogic FastLinQ 41164 10GB Base-T<br>Intel X520 Dual Port 10Gb SFP+ |
| **Ports** | Front ports: Video, 1 x USB 2.0, available USB 3.0, dedicated iDRAC Direct Micro-USB<br>Rear ports: Video, serial, 2 x USB 3.0, dedicated iDRAC network port<br>Video card: VGA<br>PCIe: Up to 3 x Gen3 slots all x16 |
| **Rack rail support** | ReadyRails™ Sliding Rails |

| **Environmental specs (NEBS Level-3 and ETSI)** | | |
|---|---|---|
| | Temperature | Continuous operating temperature of -5C to 40C; 96 hour operating excursions from -5C to 55C |
| | Humidity | Operating Humidity of 5% to 85% with excursions of 5% to 90%, but not to exceed 0.24 kg water/kg of dry air |
| | Altitude | Up to 4000m; Sea Level -60M to 1800M; -61m to 1829m at 40C; from 1829M to 3960m at 30C |
| | Dust | Dust filter rated 80% per ASHRAE Std 52.1 |
| | Seismic | Operational resiliency up to Richter 7.5 seismic event (Zone 4 seismic event) |
| | EMI | Immunity up to 8kV/15kV or air/contact |
| | Fire resistance | Built with fire retardant material to contain and extinguish fire if any occurs inside the box |

Learn more at DellEMC.com/OEM