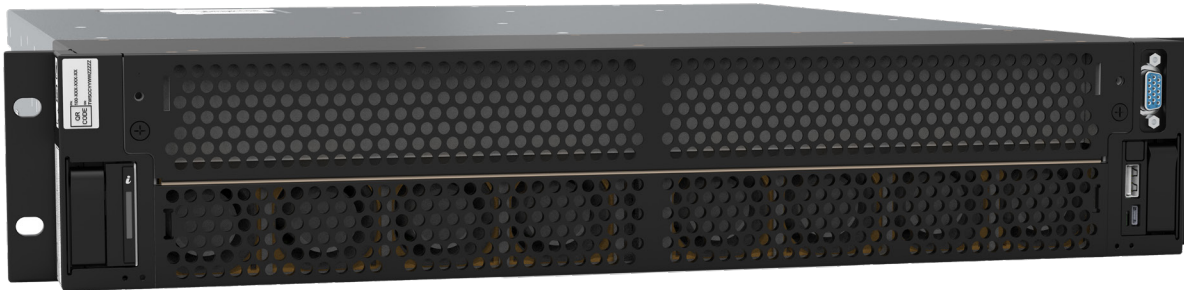


DUAL SOCKET / HIGH PERFORMANCE /  
COMPUTE AND STORAGE DENSE  
/ SCALABLE



# Tracewell T-R640

**BASED ON:** The Dell EMC PowerEdge R640 rack server. Proven, scalable rack server technology optimized for performance while providing dense, software designed storage, automated system management and a cyber resilient architecture.

**USE CASE:** Ideal for customers that require enterprise-class compute capabilities but need a short-depth server capable of being adapted to operate in non-traditional environments.

## Benefits

### DELL TECHNOLOGIES

Enterprise-class rack server technology that combines high-performance, scalable computing and dense, software defined storage with the benefits of automated system management and a cyber resilient infrastructure.

### TRACEWELL PLATFORMS

Features a standard Dell EMC R640 in a short-depth form factor that is lighter and more rigid than off-the-shelf systems. Can be customized to meet specific mission and program requirements or integrated with critical third-party technologies.

### DELL TECHNOLOGIES + TRACEWELL

Electrically identical to standard Dell EMC products. "Plug and play" components between Dell EMC products and Tracewell platforms. Order through Dell EMC (Dell EMC part number) and eligible for Dell EMC warranty, service, support and secure supply chain.



**SYSTEM:**  
3.5"H x 19.0"W x 20.0"D

### FORM FACTOR HIGHLIGHTS:

The hallmark of the T-R640 is its compact size – the short-depth system is 20.0" from front to back, compared to 29.60" for the standard Dell EMC PowerEdge R640.

### MAXIMUM CONFIGURATION:

Processor: 56 cores (Intel). Memory: 3TB. Storage (SSD): 10, 2.5" drives. PCIe slots: 2.

# The Tracewell T-R640

## Specifications Summary

The Tracewell T-R640 accepts standard Dell hardware configurations.

### STANDARD DELL EMC PRODUCT CONFIGURATIONS

<b>PROCESSOR TYPE</b>	Intel Xeon 2nd Generation Scalable Processor Family, up to 28 cores per processor (one or two processors).
<b>MEMORY ARCHITECTURE</b>	H2666MT/s, 2933 MT/s, DDR4, RDIMM, LRDIMM, DCPMM and NVDIMM.  Number of sockets: 24. Up to 24 RDIMM or LRDIMM, up to 128GB per DIMM. Up to 12 NVDIMM, 192GB max. Maximum RAM: 3072GB.
<b>I/O SLOTS</b>	Up to 3 x PCIe Gen 3 slots, plus a dedicated PERC and rNDC slot.
<b>RAID CONTROLLER</b>	Hardware RAID, Levels 0,1,5,6,10,50,60 or Pass-Thru. Internal controllers: PERC S140 (SW RAID SATA), H330, H730, H740P, Software RAID (SWRAID) S140.  Internal HBA (non-RAID): PERC HBA330. External HWRAID (RAID) 840: 12 Gb/s SA HBA (non-RAID).
<b>STORAGE</b>	Up to (10) 2.5" hot-swap drives, SAS, SAS/SATA, SSD/HDD, NVMe (up to 8x) rear accessible, or up to four 3.5", hot swappable with up to 2 x 2.5" rear hot swappable.  Optional internal BOSS controller with up to two 6Gbps M.2 SATA SSDs, RAID 1 option. Optional Internal Dual SD Module (IDSMD) and vFlash reader, up to 64GB per SD.
<b>NETWORK</b>	Embedded NIC: 4 ports on rear panel, 1/10Gb, RJ45/SFP+. Up to three PCIe add-on NIC cards.
<b>GPU / FPGA / HBA CARDS</b>	Intel® Programmable Acceleration Card with Intel Arria® 10 GX FPGA.NVIDIA T4 GPU card, up to two PCIe add-on HBA cards.
<b>CHASSIS MANAGEMENT CONTROLLER</b>	iDRAC9 with Lifecycle Controller (Express or Enterprise).  Optional: OpenManage Essentials, vFLASH media up to 16GB, iDRAC Quick Synch.
<b>VIDEO</b>	Integrated Matrox G200eW3 graphic, 16MB video frame buffer.
<b>SYSTEM I/O</b>	Front panel: iDRAC / Direct port (Micro-AB USB), USB 2.0 (Type A), VGA video (15-pin). On/Standby switch. Rear panel: iDRAC9 dedicated network port (RJ45), two USB 3.0 (Type A), VGA video (15-pin), Serial (9-pin, DME, 16550-compliant).
<b>POWER SUPPLY</b>	Up to (2) power supplies supported. Up to 1600W output (per PS), N+1 capable. Input voltage: 100-240 VAC (50/60 Hz), (48-60) VDC.
<b>COOLING</b>	Up to eight standard or high-performance cooling fans, hot-swap capable.

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**ENVIRONMENTAL**

Standard Operating Temp: 10°C to 35°C (50°F to 95°F).

Expanded Operating Temp: -5°C to 45°C (23°F to 113°F) with some restrictions.

Storage Temp: -40°C to 65°C (-40°F to 149°F).

Carrier Grade and Fresh Air-Cooling options available.

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**TRACEWELL SYSTEMS PRODUCT CONFIGURATIONS**

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**CHASSIS**

Short-depth, rear drive chassis only 20.0" deep x 2U high. Up to (10) 2.5" hot-swap drives, rear access

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For more information, see the Tracewell T-R640 Data Sheet.

**ABOUT TRACEWELL SYSTEMS**

For more than 40 years Tracewell has enabled the nation's largest military and commercial organizations to deliver powerful and reliable computing solutions in environments where size, weight, power and other constraints present challenges that cannot be met by standard computing systems. Tracewell Systems have been recognized by the top names in the defense and technology sectors for their commitment to Trusted Innovation – a process where the company solves previously impossible, sensitive, mission-critical platform challenges through customer solution design, engineering and manufacturing, all under one roof.

More information: [www.tracewell.com](http://www.tracewell.com).

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