

SHORT-DEPTH / HIGH-PERFORMANCE /  
BUILT FOR THE EDGE / MODULAR AND  
FLEXIBLE CHASSIS DESIGN



# Tracewell T-XR4000-3 (three slot chassis)

**BASED ON:** The new Dell Technologies PowerEdge XR4000 is the company's shortest depth server to date. Built to withstand challenging environments at the edge, the XR4000 offers high-performance computing in a unique "chassis and compute sled" architecture and a 14" form factor, making it the optimal mix of power and size.

**USE CASE:** Tracewell Systems XR4000 Extensions make it possible to do more with Dell Technologies. The Tracewell T-XR4000-3 is ideal for customers looking to extend the high-performance capabilities of the standard Dell XR4000 product by enabling the system to support an even greater number of use cases, including the ability to integrate Dell networking, PCIe and other mission critical technology.

## Benefits

### DELL TECHNOLOGIES

The new Dell PowerEdge XR4000 is purpose built to deliver high-performance computing in edge environments. The multi-node server comes in 1U or 2U form factors and a chassis and sled architecture perfect for retail, manufacturing, telecommunications and defense organizations.

### TRACEWELL PLATFORMS

All of the benefits of the Dell PowerEdge XR4000 in a flexible, modular, three-slot chassis design that makes it possible to add additional capabilities, such as Dell Networking Switches, storage, PCIe and other specialty components, to the platform by integrating and mounting them on top of the system.

### DELL+ TRACEWELL

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



**SYSTEM:**  
(IN ATA-COMPLIANT TRANSIT CASE)  
9.0"H x 14.0"W x 22.0"D

**SYSTEM:**  
(CHASSIS ONLY; NO TRANSIT CASE)  
5.2"H x 10.5"W x 14.9"D

### FORM FACTOR HIGHLIGHTS

Short-depth, high-performance platform built for edge environments.

Three-slot chassis features a flexible design with an additional 1U space that enables a wide-range of third party technology (for example, a Dell Network Switch) to be mounted on top for a powerful, integrated edge platform.

Innovative design delivers a three-slot chassis that makes it possible to add additional mission critical technology integrated into an Airline Transportation Association (ATA) compliant travel case.

# The Tracewell T-XR4000-3 (three slot chassis) Specifications Summary

The Tracewell T-XR4000-3 (three slot chassis) accepts standard Dell hardware configurations.

## STANDARD DELL POWEREDGE XR4000 PRODUCT CONFIGURATIONS

<b>PROCESSOR TYPE</b>	<p>Dell XR4510c (1U): 3rd Generation Intel Xeon D Scalable processor.</p> <p>Dell XR4520c (2U): 3rd Generation Intel Xeon D Scalable processor.</p> <p>Dell XR4000w (Nano Witness Server): One Intel Atom 3508 processor at 1.6 GHz max turbo frequency.</p>
<b>MEMORY ARCHITECTURE</b>	<p>Dell XR4510c / XR4520c: 4 DDR4 DIMM slots, supports up to 3200 MT/s RDIMM / LRDIMM, 512GB Max DDR4.</p> <p>Dell XR4000w: 16GB ECC DDR4 1866, single channel.</p>
<b>STORAGE</b>	<p>Dell XR4510c / XR4520c: Supports Boot Optimized Storage Subsystem (BOSS-N1); 2x M.2 SSDs as an internal boot, supports up to 4x M.2 SSDs (M.2 2280 and M.2 22110) installed on M.2 riser module.</p> <p>Dell XR4520c: Optional +8 M.2 storage drives (4x per x16 slot) 12x M/2 total (not including BOSS).</p>
<b>RAID CONTROLLER</b>	None supported.
<b>VIDEO</b>	Integrated Matrox G2000 graphics controller embedded in the iDRAC (BMC) chip with 16 MB of video frame buffer.
<b>PCIe SLOTS</b>	<p>Dell XR4510c: None supported.</p> <p>Dell XR4520c: Supports up to 2x 16 PCIe (Gen 4) full-height, full-length, GPU support; 1x 300W (DW) or 2x 150W (SW) per node.</p>
<b>NETWORK</b>	<p>Dell XR4510c / XR4520c: 4x 10GbE or 4x 25 GbE LOM, 1x 1GbE management port.</p> <p>Tracewell T-XR4510-S (Cisco ESS 9300): Optional 10 port 10Gb Ethernet switch node available.</p>
<b>SYSTEM MANAGEMENT</b>	Dell XR4510c / XR4520c: Supports one RJ45 with port status LEDs for iDRAC remote management (dedicated port only).
<b>ACCESSIBLE I/O</b>	<p>Dell XR4510c / Dell XR4520c per node: One nine-pin USB 3.0 port to connect USB devices.</p> <p>4x 10Gbe (max 50Gb). 4x 25Gbe (max 100Gb).</p> <p>2x USB 3.0</p> <p>1x Micro-AB USB 2.0-compliant port for iDRAC Direct.</p> <p>1x Micro-USB UAART port.</p> <p>One mini display port to connect a display device.</p> <p>One RJ-45 iDRAC remote management (dedicated port only).</p> <p>1x USB 3.0 (internal).</p> <p>Power On Buttons for each node.</p>

# The Tracewell T-XR4000-3 (three slot chassis) Specifications Summary

The Tracewell T-XR4000-3 (three slot chassis) accepts standard Dell hardware configurations.

## POWER SUPPLY

Up to two power supplies supported. Available in 1800W, 1100W Mixed Mode AC or 1100W DC  
High-line operation up to 1800W or 1400W (1800W and 1400W).  
Low-line operation up to 1050W (1400W).  
DC operation up to 1100W (1100W DC).  
Input voltage: 100-240 VAC, -48-(-60) VDC, Maximum current: 6.6 to 12 A (AC), 27 A (DC).

## COOLING

Dell XR4510c: 3 standard cable fans per node.  
Dell XR4520c: 6 standard cable fans per node.

## ENVIRONMENTAL

Normal operating temp: -5°C to 55°C with startup of 0°C (23°F to 131°F) with some restrictions.  
Storage temp: -40°C to 85°C (-40°F to 185°F).

# Tracewell Systems Product Configurations

## CHASSIS CONSTRUCTION

Bonded aluminum low-mass chassis for rigidity with minimum weight.

## CHASSIS SLED SLOTS

Tracewell T-XR4000-3 three slot chassis supports up to:  
3x Dell XR4510c (1U) nodes  
1x Dell XR4520c (2U) node  
1x Dell XR4510c (1U) node and 1x Dell XR4520c (2U) node  
1x Dell XR4000W Nano Witness Server  
1x Tracewell T-XR4510-S (1U Cisco ESS 9300) switch node

## DIMENSIONS

5.2"H x 10.5"W x 14.9"D

Chassis installed in an Airline Transportation Association (ATA) compliant transit case:  
9.0"H x 14.0"W x 22.0"D. Features an additional 1U space for components, for example  
a Dell Networking Switch.

## INSTALLATION AND OPTIONS

Optional: Rugged ATA compliant transit case or tactical "ship to" case.  
Unit may be operated within a rugged transit case or stand-alone / benchtop.

Above specifications are derived from the standard Dell XR4000 product.

# Tracewell Systems Product Configurations

The Tracewell Systems T-XR4000-3 (three slot chassis) is based on Dell Technologies PowerEdge XR4000r Chassis.



## T-XR4000-3 (THREE SLOT CHASSIS)

Accepts any standard Dell XR4000r system configuration that includes one blank filler (for example, a three slot Dell System). Supports a wide-range of unique mounting options — from traditional top of the rack to specialty operating environments.



## THE TRACEWELL T-XR4000-3 BUILT FOR THE EDGE

(Shown with an integrated Dell S4112T Network Switch installed in a T-XR4000 ATA System) Features a Tracewell engineered chassis and standard Dell XR4000 sleds. Available in an ATA compliant rugged transit case (system can be operated in the transit case with covers removed).

# Tracewell Systems T-XR4000-3 Sled Options



DELL XR4510 (1U)



DELL XR4520 (2U)



DELL XR4000W



T-XR45 10-S  
/ CISCO SWITCH (ESS) 9300  
1U Switch Sled Supports (10)  
10Gb SFP+ Ports

## ABOUT TRACEWELL SYSTEMS

For five decades 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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