Compute and Storage Rack

A New Generation of Speed, Storage and Processing Power

We connect and protect

nVent SCHROFF

SCHROFF Compute and Storage Rack

A NEW GENERATION OF SPEED, STORAGE AND PROCESSING POWER

nVent delivers the first nVent SCHROFF Compute and Storage Rack for telecommunication applications. Based on the principles of the highly efficient open compute platform (OCP), the rack has been developed to address the demands of telecommunication applications. The rack supports a robust system management architecture. It is designed to meet the enhanced specifications for the Telecommunication Standard Institute (ETSI) and Network Equipment Building System (NEBS) in:

- Shock and vibration
- Temperature range
- Cooling performance
- UL certification

The modular design approach of the SCHROFF Compute and Storage Rack allows for adoption of the OCP standard, including customization in smaller quantities. The rack runs high-end servers more efficient in costs and data processing.

TECHNICAL DETAILS

RACK

- 42 U height, 800 mm width, 1000 mm depth
- (optional 42 U x 600 mm width x 1200 mm depth)
- Height increment 1 U (1,75", 44,45 mm)
- Vertical 12 V DC bus bars for power distribution
- Up to 136 Xeon processors or up to 2700 TB of storage, or any combination of both
- Combined PSU / PDU unit
- 2 redundant AC power inlets (3-phase)
- 2 x N+1 redundant AC to 12 V DC PSUs
- Smart Rack Manager
- ToR (Top of Rack) Switches
- 2 redundant 1U fiber optic data plane switches each with 32x 40 Gb or 96x 10 Gb + 8x 40 Gb ports
- 2 redundant 1U fiber optic management switches each with 48x 1 Gb + 2x 10Gb ports
- Shelves
- Up to 17x 2U, full width shelves for Storage Sleds or 34x 2U, half width shelves for Compute Sleds or any combination of both

BENEFITS

- Mechanical modifications in height, width, depth, color number and position of shelves et al.
- Accessories like electronic door lock, rear door cooler and integration in rack management
- Integration of PSUs, PDUs, switches, shelves, fiber optic cabling
- Environmental protection and EMI shielding
- Shock, vibration & seismic up to Zone 4
- Cold or hot aisle containment cooling strategies

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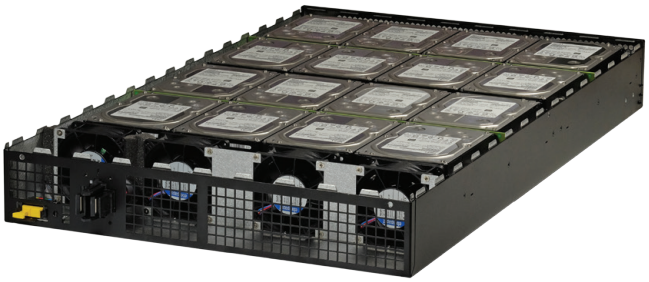
HIGHEST FLEXIBILITY WITH AN APPLICATION INDEPENDENT ARCHITECTURE



COMPUTE SLED

- 2U, half width
- 2x Dual socket Xeon motherboards
- 2x 10 Gb optical NICs per motherboard for data plane
- 2x 1 Gb optical NICs, per motherboard for BMC and management
- Up to 256 GB (16x 16 GB) RAM per motherboard
- 2x boot and application SSDs (2 TB)

STORAGE SLED

- 2U, full width
- Dual socket Xeon motherboard
- 2x 10 Gb optical NICs per motherboard for data plane
- 2x 1 Gb optical NICs, per motherboard for BMC and management
- Up to 256 GB (16x 16 GB) RAM
- 2x boot and application SSDs, one or more application dedicated SSDs
- 16x 3.5” 8 TB HDDs, optional 20 x 3.5” HDDs

BENEFITS

- Mechanical adaptations to fit different main boards or custom electronics
- Board development for power distribution boards (12V sled input voltage to mainboard), copper to fiber converter boards, i.e. BMC (Baseboard management controller) for server mainboards
- Integration and test of compute and storage sleds
- Combine storage & computing to create a rack tuned for each application

Our Services

WHAT TO EXPECT FROM NVENT

GLOBAL PROJECT & MANUFACTURING SUPPORT

- Manufacturing facilities in Europe, China, India and USA
- Project management support on site
- Full lifecycle support from project conception to site installation

THERMAL SIMULATION AND TEST

- Thermal design expertise resulting from years in the rack and embedded systems industries
- Cold Aisle / Hot Aisle containment expertise
- Experts in air cooling and air/liquid heat exchangers and in-row coolers
- Full thermal test facilities in house to prove design performance
- Thermal simulation capabilities drive project success prior to prototype and test

INDUSTRY CERTIFICATIONS

- UL certification
- NEBS compliance
- Shock, vibration and EMC in accordance to IEC 61587 compliant
- Earthquake in accordance to GR-63-CORE

Shock and vibration test

Climate chamber

Wind tunnel testing

For more information please visit: **nVent.com/SCHROFF**

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