The ThinkServer® RD640 server combines expansive networking, storage and RAID choices to run line-of-business applications or heavy web traffic workloads. It features Xeon® E5-2600 v2 processors, up to 24 cores and 320GB memory for data analytics and virtualization. RD640 delivers impressive compute power per watt, with an energy-efficient 2U design featuring 80 PLUS Gold redundant power supplies, low volt memory choices and innovative Lenovo® Smart Grid power management technology. Its flexible configuration choices provide great value to scale as your business needs grow, and offer a wide array of drive types and capacities. 5 PCI slots provide room to expand as you need it and an array of powerful new HBA, CNA and 10Gbps Ethernet choices help you to address growing network bandwidth requirements. Whether you need value-focused SATA storage or lightning-fast SAS/SSD and advanced RAID for performance, ThinkServer RD640 is an outstanding choice.

*Compared to previous generation ThinkServer RD630
THINKSERVER® TECHNOLOGY

TRULY OPEN MANAGEMENT

ThinkServer RD640 provides easy setup, intelligent diagnostics, useful management tools and truly open and industry standard management interfaces for worry-free integration into hybrid deployments. Use your preferred SAN, storage and console and rely on the compute-intensive performance of the RD640 to run demanding apps. Or, consider Lenovo’s enterprise solutions for truly end-to-end performance and scalability. Pair the ThinkServer RD640 with the LenovoEMC™ px12-450+ storage and VMware Operations Management for a comprehensive solution for production environments, enterprise virtualization, backup and data protection. Leading performance, legendary Think quality, open standards and outstanding value – that’s what makes a ThinkServer Think.

SPECIFICATIONS

CHIPSET
Intel® C602-J Chipset
TPM 1.2 Encryption

PCIe EXPANSION
PCIe GEN 3 with 1 CPU
• 1 x PCIe GEN 3: LP x8 mechanical, x8 electrical
• 1 x PCIe GEN 3: FH/HL x16 mechanical, x16 electrical
• 1 x PCIe GEN 3: FH/HL x8 mechanical, x8 electrical

PCIe GEN 3 with 2 CPU
• 1 x PCIe GEN 3: LP x8 mechanical, x8 electrical (if second CPU is added)
• 1 x PCIe GEN 3: FH/HL x16 mechanical, x16 electrical (if second CPU is added)
• 1 x PCIe GEN 3: FH/HL x8 mechanical, x8 electrical (if second CPU is added)

STORAGE CONTROLLER
Advanced hardware RAID is standard on every model. Choose from:
• ThinkServer RAID 500 II Adapter (6GB SAS/SATA HW RAID 0/1/10/5/50/6/60) with optional RAID 5 Upgrade Key
• ThinkServer RAID 700 II Adapter (6GB SAS/SATA HW RAID 0/1/10/5/50/6/60) with 512MB cache and optional battery backup
• ThinkServer RAID 710 Adapter (6GB SAS/SATA 0/1/10/5/50/6/60) with 1GB cache and optional CacheCode technology, optional Super Capacitor Module, and Fast Path data protection.

ETHERNET AND I/O
Ethernet
2 x 1GB integrated + dedicated MGMT port
Optional Intel® Ethernet Server Adapter I350-T4
Optional Intel® Ethernet Server Adapter I350-T2
Optional Intel® 10G SFP+ X520-SR2 Ethernet adapter
Optional Intel® 10G copper X520-DA2 Ethernet adapter
Optional Intel® 10G dual-port x540-T2 Ethernet adapter

1/0 Ports
Front connectors: 2 x USB 2.0, 1 x VGA, DIT module
Rear connectors: 1 x VGA, 4 x USB 2.0, 1 x serial
Internal connectors: 2 x USB, 1 x TCM/TPM

SOFTWARE
Windows Server 2012 (including Hyper-V)
Windows Server 2008 R2 (including Hyper-V)
Windows Small Business Server 2011
SLED 11 SP2
RedHat 5.9 / 6.4
VMware ESXi 5.1 U1
Citrix XenServer 6.0.2 / 6.1

MANAGEMENT
Optional Remote Management / KVM
IPMI 2.0 / SOL / Node Manager / DCMI
Configurable TPM (Supports TCG 1.2)
uEFI BIOS
Intelligent Diagnostics Module with optional Premium Module

POWER AND COOLING
1+1 Redundant Power – 800W (80 PLUS Gold)
ENERGY STAR Server 1.1 compliant
6 system fans, supports 5 + 1 HS redundant

MEMORY
20 DIMM sockets – up to 320GB
• LV-RIOMMs: DRR3-1600 MHz ECC, 4GB, 8GB or 16GB choices
PAS: ECC, Lock step, Mirroring, Sparring
CPU 1: 12 memory slots (4 channel)
CPU 2: 8 memory slots (4 channel)

DIMENSIONS (W x H x D)
442 mm x 875 mm x 720.6 mm
(174” x 34.5” x 28.9”)
Weight (max.): 26.5 kg (58.6 lbs)
2U Rack mountable