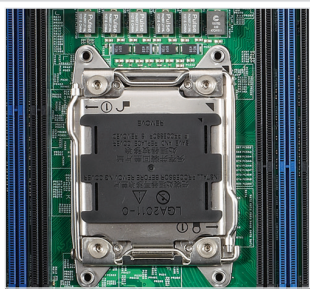


THE LENOVO® THINKSERVER® RD640
HIGHLY FLEXIBLE. WORLD-CLASS PERFORMANCE.



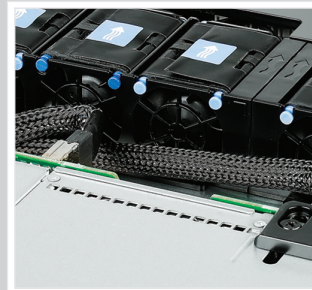
BALANCED DESIGN

27% greater performance with optimized memory and IO for demanding workloads



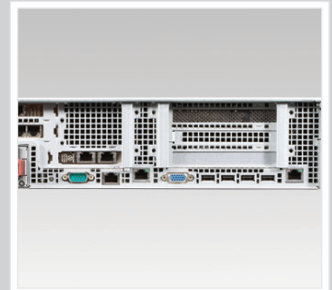
GREATER SCALABILITY*

25% greater storage, up to 32TB, to support your database, virtualization and email workloads



ENHANCED RELIABILITY

Features redundant fans and power. Offers new advanced RAID choices with 1GB write-back cache and FastPath technology

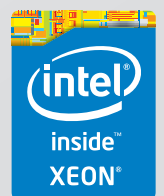


TRULY OPEN

Completely open. Based on open standards and protocols, RD640 fits easily in heterogeneous environments

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. 6 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® RD640

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™ px12-450r 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.

INNOVATIVE POWER MANAGEMENT

Enjoy impressive power savings with ThinkServer Smart Grid power management technology. Based on Intel® Power Node Manager® technology, Smart Grid scales power management to the datacenter level, simultaneously managing as many as 1,000 nodes. Use Smart Grid at any level of your datacenter hierarchy: rack, row, room, group, etc. It provides sophisticated, policy-based, dynamic power capping tools to help you best manage power to changing server workloads. It's innovation that matters, ThinkServer technology that pays you back.

SPECIFICATIONS

| CHIPSET | PROCESSOR | POWER AND COOLING |
|--|--|---|
| Intel® C602-J Chipset TPM 1.2 Encryption | Up to 2 x Intel® Xeon® E5-2600 v2 processors, up to 24 cores ² | 1+1 Redundant Power – 800W (80 PLUS Gold) ENERGY STAR Server 1.1 compliant 6 system fans, supports 5 + 1 HS redundant |
| PCIe EXPANSION | STORAGE CONTROLLER | MEMORY |
| PCIe GEN3 with 1 CPU <ul style="list-style-type: none"> 1 x PCIe GEN3: LP x8 mechanical, x8 electrical 1 x PCIe GEN3: FH/HL x16 mechanical, x16 electrical (RAID adapter occupies this slot) 1 x PCIe GEN3: FH/HL x8 mechanical, x8 electrical PCIe GEN3 with 2 CPU <ul style="list-style-type: none"> 1 x PCIe GEN3: LP x8 mechanical, x8 electrical (if second CPU is added) 1 x PCIe GEN3: FH/HL x16 mechanical, x16 electrical (RAID adapter occupies this slot) 1 x PCIe GEN3: FH/HL x16 mechanical, x8 electrical 3 x PCIe GEN3: FH/HL x8 mechanical, x8 electrical | Advanced hardware RAID is standard on every model. Choose from: <ul style="list-style-type: none"> ThinkServer RAID 500 II Adapter (6GB SAS/SATA HW RAID 0/1/10) 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 CacheCade technology, optional Super Capacitor Module, and Fast Path data protection. | 20 DIMM sockets – up to 320GB ¹ - LV-RDIMMs: DDR3-1600 MHz ECC, 4G, 8GB, or 16GB choices RAS: ECC, Lock step, Mirroring, Sparing CPU 1: 12 memory slots (4 channel) CPU 2: 8 memory slots (4 channel) |
| ENVIRONMENT | ETHERNET AND I/O | SOFTWARE |
| <ul style="list-style-type: none"> Air temperature: Operating: 10°C to 35°C Storage: -40°C to 70°C in original shipping package Altitude: 0 to 3048 m (0 to 10,000 ft) in an unpressurized environment Humidity: Operating: 8% to 80% (non-condensing) Storage without package: 8% to 80% (non-condensing) Storage with package: 8% to 90% (non-condensing) Electrical input Universal input: – Low range: Minimum: 100 VAC Maximum: 127 VAC Input frequency range: 50 to 60 Hz – High range: Minimum: 200 VAC Maximum: 240 VAC Input frequency range: 50 to 60 Hz | 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 I/O 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 | Windows Server 2012 (including Hyper-V) Windows Server 2008 (x64) (including Hyper-V) Windows Server 2008 R2 (including Hyper-V) Windows Small Business Server 2011 SLES 11 SP2 RedHat 5.9 / 6.4 VMware ESXi 5.1 U1 Citrix XenServer 6.0.2 / 6.1 |
| STORAGE | MANAGEMENT | DIMENSIONS (W x H x D) |
| 8 x 3.5" HDD – up to 32TB internal SATA storage or 24TB internal SAS storage 8 x 2.5" HS HDD – up to 7.2TB internal SAS storage 16 x 2.5" HS HDD – up to 14.4TB internal SAS storage • Supports SATA/SAS/SSD hard drives | 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 | 442 mm x 87.6 mm x 720.6 mm (17.4" x 3.45" x 28.9") Weight (max.) 26.5 kg (58.6 lbs) 2U Rack mountable |

1 When installing LV RDIMM memory, a maximum of 16 DIMMs can be populated
 2 Fans are not redundant when using 130 W 4C/6C processors (E5-2637 V2/E5-2643 V2)



MICROSOFT® WINDOWS® SERVER® 2012 OS CHOICES

| Reseller Options Kits (ROKs) | Part No. |
|--|----------|
| Microsoft® Windows® 2012 Foundations ROK – Multilingual User Interface – English/French/German/Italian/Spanish | 82972FM |
| Microsoft® Windows® 2012 Essentials ROK – Multilingual User Interface – English/French/German/Italian/Spanish | 82972EM |
| Microsoft® Windows® 2012 Standard ROK – Multilingual User Interface – English/French/German/Italian/Spanish | 82972SM |
| Client Access Licenses (CALs) | Part No. |
| Microsoft® Windows® Server® 2012 Client Access License (1 Device) | 0C19601 |
| Microsoft® Windows® Server® 2012 Client Access License (1 User) | 0C19602 |
| Microsoft® Windows® Server® 2012 Client Access License (5 Device) | 0C19603 |
| Microsoft® Windows® Server® 2012 Client Access License (5 User) | 0C19604 |
| Microsoft® Windows® Server® 2012 Client Access License (10 Device) | 0C19605 |
| Microsoft® Windows® Server® 2012 Client Access License (10 User) | 0C19606 |
| Microsoft® Windows® Server® 2012 Client Access License (50 Device) | 0C19607 |
| Microsoft® Windows® Server® 2012 Client Access License (50 User) | 0C19608 |
| Windows® Server® 2012 Remote Desktop Services Client Access License (5 Device) | 0C19609 |
| Windows® Server® 2012 Remote Desktop Services Client Access License (5 User) | 0C19610 |
| Windows® Server® 2012 Remote Desktop Services Client Access License (1 Device) | 0C19611 |
| Windows® Server® 2012 Remote Desktop Services Client Access License (1 User) | 0C19612 |

VMWARE CHOICES

| | Part No. |
|---|----------|
| VMware vCenter Server 5 Foundation for vSphere up to 3 hosts (per instance) with 1-year subscription support | 0C19575 |
| VMware vCenter Server 5 Foundation for vSphere up to 3 hosts (per instance) with 3-year subscription support | 0C19576 |
| VMware vCenter Server 5 Standard for vSphere 5 (per instance) with 1-year subscription support | 0C19577 |
| VMware vCenter Server 5 Standard for vSphere 5 (per instance) with 3-year subscription support | 0C19578 |
| VMware vCenter Server Heartbeat 6 for 1 vCenter Server with 1-year subscription support | 0C19579 |
| VMware vCenter Server Heartbeat 6 for 1 vCenter Server with 3-year subscription support | 0C19580 |
| VMware vSphere 5 Enterprise Acceleration Kit for 6 processors with 1-year subscription support | 0C19581 |
| VMware vSphere 5 Enterprise Acceleration Kit for 6 processors with 3-year subscription support | 0C19582 |
| VMware vSphere 5 Enterprise for 1 processor with 1-year subscription support | 0C19583 |
| VMware vSphere 5 Enterprise for 1 processor with 3-year subscription support | 0C19584 |
| VMware vSphere 5 Enterprise Plus Acceleration Kit for 6 processors with 1-year subscription support | 0C19585 |
| VMware vSphere 5 Enterprise Plus Acceleration Kit for 6 processors with 3-year subscription support | 0C19586 |
| VMware vSphere 5 Enterprise Plus for 1 processor with 1-year subscription support | 0C19587 |
| VMware vSphere 5 Enterprise Plus for 1 processor with 3-year subscription support | 0C19588 |
| VMware vSphere 5 Essentials Kit for 3 hosts (Max 2 processors per host) with 1-year subscription support | 0C19589 |
| VMware vSphere 5 Essentials Kit for 3 hosts (Max 2 processors per host) with 3-year subscription support | 0C19590 |
| VMware vSphere 5 Essentials Plus Kit for 3 hosts (Max 2 processors per host) with 1-year subscription support | 0C19591 |
| VMware vSphere 5 Essentials Plus Kit for 3 hosts (Max 2 processors per host) with 3-year subscription support | 0C19592 |
| VMware vSphere 5 Standard Acceleration Kit for 6 processors with 1-year subscription support | 0C19593 |
| VMware vSphere 5 Standard Acceleration Kit for 6 processors with 3-year subscription support | 0C19594 |
| VMware vSphere 5 Standard for 1 processor with 1-year subscription support | 0C19595 |
| VMware vSphere 5 Standard for 1 processor with 3-year subscription support | 0C19596 |
| VMware vSphere 5 Standard with Operations Management Acceleration Kit for 6 processors with 1-year subscription support | 0C19597 |
| VMware vSphere 5 Standard with Operations Management Acceleration Kit for 6 processors with 3-year subscription support | 0C19598 |
| VMware vSphere 5 Standard with Operations Management and 1-year subscription support | 0C19599 |
| VMware vSphere 5 Standard with Operations Management and 3-year subscription support | 0C19600 |



ACCESSORIES FOR THINKSERVER® RD640

PROCESSORS

0C19546 – Intel® Xeon® E5-2697 v2 processor Option for ThinkServer RD640
 0C19547 – Intel® Xeon® E5-2695 v2 processor Option for ThinkServer RD640
 0C19548 – Intel® Xeon® E5-2690 v2 processor Option for ThinkServer RD640
 0C19549 – Intel® Xeon® E5-2680 v2 processor Option for ThinkServer RD640
 0C19550 – Intel® Xeon® E5-2670 v2 processor Option for ThinkServer RD640
 0C19551 – Intel® Xeon® E5-2660 v2 processor Option for ThinkServer RD640
 0C19552 – Intel® Xeon® E5-2650L v2 processor Option for ThinkServer RD640
 0C19553 – Intel® Xeon® E5-2667 v2 processor Option for ThinkServer RD640
 0C19554 – Intel® Xeon® E5-2650 v2 processor Option for ThinkServer RD640
 0C19555 – Intel® Xeon® E5-2640 v2 processor Option for ThinkServer RD640
 0C19556 – Intel® Xeon® E5-2630 v2 processor Option for ThinkServer RD640
 0C19557 – Intel® Xeon® E5-2620 v2 processor Option for ThinkServer RD640
 0C19558 – Intel® Xeon® E5-2630L v2 processor Option for ThinkServer RD640
 0C19559 – Intel® Xeon® E5-2609 v2 processor Option for ThinkServer RD640
 0C19560 – Intel® Xeon® E5-2603 v2 processor Option for ThinkServer RD640

ETHERNET

1Gbps Ethernet

0C19506 – ThinkServer 1Gbps Ethernet I350-T2 Server Adapter by Intel®
 0C19507 – ThinkServer 1Gbps Ethernet I350-T4 Server Adapter by Intel®

10Gbps Ethernet

0C19487 – Lenovo® 10Gbps Ethernet X520-SR2 Server Adapter by Intel®
 0C19486 – Lenovo® 10Gbps Ethernet X520-DA2 Server Adapter by Intel®
 0C19497 – Lenovo® 10Gbps Ethernet X540-T2 Server Adapter by Intel®
 0C19488 – Lenovo® 10Gbps Ethernet Fiber Module by Intel®

RAID AND HBA

0A89464 – ThinkServer RAID 500 Adapter II
 0A89407 – ThinkServer RAID 500 Upgrade Key for Advanced RAID
 0A89463 – ThinkServer RAID 700 Adapter II
 67Y2647 – ThinkServer RAID 700 Battery
 0C19489 – ThinkServer RAID 710 Adapter
 0C19490 – ThinkServer RAID Super Capacitor Module
 0C19491 – ThinkServer RAID FastPath Software Key
 0C19492 – ThinkServer RAID CacheCade Pro 2.0 Software Key
 0C19476 – ThinkServer LPe1250 Single Port 8GB Fiber Channel HBA by Emulex
 0C19478 – ThinkServer LPe12002 Dual Port 8GB Fiber Channel HBA by Emulex

Management

67Y2624 – ThinkServer Management Module Premium

MEMORY AND HARD DRIVES

0C19533 – ThinkServer 4GB DDR3L-1600 MHz (1R x 8) RDIMM
 0C19534 – ThinkServer 8GB DDR3L-1600 MHz (2R x 8) RDIMM
 0C19535 – ThinkServer 16GB DDR3L-1600 MHz (2R x 4) RDIMM

3.5" 7.2k Enterprise Hot Swap SATA 6Gbps

0A89473 – ThinkServer 500GB 7.2K 3.5" Enterprise SATA 6Gbps Hot Swap Hard Drive
 0A89474 – ThinkServer 1TB 7.2K 3.5" Enterprise SATA 6Gbps Hot Swap Hard Drive
 0A89475 – ThinkServer 2TB 7.2K 3.5" Enterprise SATA 6Gbps Hot Swap Hard Drive
 0A89477 – ThinkServer 3TB 7.2K 3.5" Enterprise SATA 6Gbps Hot Swap Hard Drive
 0C19520 – ThinkServer 3.5" 4TB 7.2K Enterprise SATA 6Gbps Hot Swap Hard Drive

3.5" 7.2k Enterprise Hot Swap SAS 6Gbps

0C19530 – ThinkServer 3.5" 1TB 7.2K SAS 6Gbps Hot Swap Hard Drive
 0C19531 – ThinkServer 3.5" 2TB 7.2K SAS 6Gbps Hot Swap Hard Drive
 0C19532 – ThinkServer 3.5" 3TB 7.2K SAS 6Gbps Hot Swap Hard Drive

2.5" 7.2k Enterprise Hot Swap SATA 6Gbps

0C19495 – ThinkServer 500GB 7.2K 2.5" Enterprise SATA 6Gbps Hot Swap Hard Drive
 0C19496 – ThinkServer 1TB 7.2K 2.5" Enterprise SATA 6Gbps Hot Swap Hard Drive

2.5" 10k Enterprise Hot Swap SAS 6Gbps

67Y2619 – ThinkServer 2.5" 300GB 10K SAS 6Gbps Hot Swap Hard Drive
 67Y2621 – ThinkServer 2.5" 600GB 10K SAS 6Gbps Hot Swap Hard Drive
 0A89409 – ThinkServer 2.5" 900GB 10K SAS 6Gbps Hot Swap Hard Drive

2.5" 15k Enterprise Hot Swap SAS 6Gbps

0C19494 – ThinkServer 2.5" 300GB 15K SAS 6Gbps Hot Swap Hard Drive

2.5" Enterprise MLC SATA

0A89418 – ThinkServer 2.5" 200GB MLC SATA Solid State Drive
 0A89419 – ThinkServer 2.5" 400GB MLC SATA Solid State Drive
 0A89420 – ThinkServer 2.5" 100GB MLC SATA Solid State Drive

2.5" to 3.5" Enterprise MLC SATA

0C19571 – ThinkServer 2.5" 100GB MLC SATA Solid State Drive to 3.5" Kit
 0C19572 – ThinkServer 2.5" 200GB MLC SATA Solid State Drive to 3.5" Kit
 0C19573 – ThinkServer 2.5" 400GB MLC SATA Solid State Drive to 3.5" Kit

RACK AND POWER

4X20E54690 – ThinkServer 800 W Gold Hot Swap Redundant Power Supply for Racks
 0A89476 – ThinkServer Cable Management Arm

SERVICES OFFERINGS

Lenovo® Services lets you get the most out of your ThinkServer® – no matter how you use it. Whether you have a thousand client seats or just one, Lenovo delivers the quality, reliability and peace of mind to keep you up and running, no matter where you are, no matter when you need it.

Lenovo ThinkServer Services are offered in a variety of service levels to meet the needs of your business as well as your budget. You can extend your base warranty for up to five years and choose the service level you value most: onsite next day, same day or around the clock within four hour service windows up to 365 days a year. We also offer an optional Keep Your Drive service so that your data never needs to leave your premises, as well as a Priority Support call center upgrade offering.

RD Series ThinkServer with 3-year base warranty
 4-year Onsite Next Business Day Response ----- 5WS0F15415
 5-year Onsite Next Business Day Response ----- 5WS0F15419
 3-year Onsite 9x5 4 Hour Response (RD Series) ----- 5WS0F15355
 3-year Onsite 24x7 4 Hour Response (RD Series) ----- 5WS0F15458

Lenovo ThinkServer Priority Support

Want to jump to the head of the queue? Talk to a specialized agent and get advanced call center support? Then our Priority Support offering is perfect for you. Choose an offering which matches the term of the ThinkServer base warranty or select from the convenient service bundle offerings designed to make it easy to purchase the combination of Lenovo services that are just right for your organization.

Lenovo ThinkServer Keep Your Drive

Data security is more important than ever and Lenovo offers our popular Keep Your Drive Service so that your data never needs to leave your hands. In the unlikely event of a hard drive failure requiring a hard drive replacement, you can keep your original drive, ensuring that your data stays in your control. Add this service to your base warranty or choose a services bundle which meets your business needs.

Lenovo ThinkServer Keep Your Drive

3-year Keep Your Drive (RD Series)----- 5PS0F15436

Bundled ThinkServer Services Offerings

Lenovo offers convenient services bundles to allow you to choose the combination of services that's right for you with a single part number and price. Here are a few of our most popular offerings:

RD Series ThinkServer with 3-year base warranty

3-year Onsite 9x5 4 Hour Response + Priority (RD Series)-----
 -----5WS0F15468
 3-year Onsite 24x7 4 Hour Response + Priority (RD Series)-----
 -----5WS0F15399
 3-year Onsite 24x7 4 Hour Response + Priority + Keep Your
 Drive (RD Series)----- 5PS0F15352
 4-year Onsite 9x5 4 Hour Response + Priority + Keep Your
 Drive (RD Series)----- 5PS0F15400

NOTE: All service levels offered vary by country. Please consult your Lenovo Business Partner or Lenovo Sales Representative for more information on the services offered in your location.

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Availability: Offers, prices, specifications and availability may change without notice. Lenovo is not responsible for photographic or typographic errors. **Warranty:** For a copy of applicable warranties, write to: Warranty Information, 500 Park Offices Drive, RTP, NC, 27709, Attn: Dept. ZPYA/B600. Lenovo makes no representation or warranty regarding third-party products or services. **Trademarks:** Lenovo, the Lenovo logo, Rescue and Recovery, ThinkPad, ThinkCentre, ThinkServer, ThinkStation, ThinkVantage and ThinkVision are trademarks or registered trademarks of Lenovo. Microsoft, Windows and Vista are registered trademarks of Microsoft Corporation. Intel, the Intel logo, Intel Core, Core Inside, Xeon and Xeon Inside are registered trademarks of Intel Corporation in the U.S. and other countries. Other company, product and service names may be trademarks or service marks of others.

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