## FASTER, GREENER, HIGHLY CUSTOMIZABLE COMPUTING PERFORMANCE

LENOVO® THINK'SERVER TO 1220



## **TOP REASONS TO OWN**

- HIGHLY SCALABLE
- ENTERPRISE CLASS FEATURES
- VIRTUALIZATION READY
- GREEN ENERGY SAVINGS

The brand new ThinkServer RD220 Rack Server provides rock solid hardware with easy to use software tools and world-class services. Built with performance and scalability in mind, the new RD220 provides the fastest ThinkServer experience yet.

### HIGHLY SCALABLE

Every RD220 gives customers access to the latest industry technology and virtually limitless ways to expand.

- Latest industry technology using Intel® Xeon® 5500 series processors
- Up to 12 HS 2.5" SAS / SATA HDD bays or 8 HS 2.5" SAS / SATA with internal tape capable solutions
- Expandable up to 16 memory DIMMs and 4 Gen 2 PCI-E slots

#### **ENTERPRISE CLASS FEATURES**

Lenovo's new RD220 is the smart choice for businesses looking for maximum scalability and flexibility combined with Low Cost of Ownership.

#### THOUGHTFULLY DESIGNED

- Tool-less serviceability makes managing your server quick and painless
- Easy LED lets you monitor your server without opening it
- Integrated Management Module provides always-on management

#### **ENGINEERED FOR MAXIMUM UPTIME**

- Built in Predictive Failure Analysis warns you about potential problems before they occur
- Every RD220 comes with integrated RAID giving you peace of mind that your data is protected
- Redundant power and cooling ensures that your servers stay up and running even if a component should have a problem

#### **LOW COST OF OWNERSHIP**

- Lenovo's suite of Easy tools makes setting up and managing your server easier than ever
- Virtualization Ready and Green features allows you to save on your power bill without sacrificing performance

#### VIRTUALIZATION READY

Lenovo's new ThinkServer provides an ideal virtualization platform. Virtualization technologies reduce server footprint and total cost of ownership by consolidating legacy servers on one platform. The RD220 makes the transition to a virtual environment seamless by:

- Providing an onboard connector for embedded hypervisor standard with every RD220
- Supporting industry leading virtualization solutions from Microsoft®, Novell®, VMWare® and Red Hat®.
- Combining Intel® virtualization technologies (VT-x, VT-d) with up to 16 Advanced - ECC memory DIMMs and up to 4 TOE enabled gigabit ethernet ports

#### **GREEN ENERGY SAVINGS**

Lenovo's new ThinkServers are the greenest yet with full ENERGY STAR® for servers full 1.0 qualification. ENERGY STAR® qualified products are 30% more energy efficient than their counterparts which can result in up to \$500 in cost savings per year! Our new power supplies are over 92% efficient; meaning more of the energy you're paying for is translated into usable power.

Lenovo is an active participant in the world standards organizations. In addition to ENERGY STAR® certification all ThinkServers are RoHS certified. Lenovo is also a participant in the Climate Savers program.

To further help you reduce your power footprint, ThinkServers provide several low power options – including low-wattage processors, low-power memory options and small form factor hard drives.







# THOUGHTFULLY DESIGNED FOR EXPANDING BUSINESSES LETS YOUR SERVER SUPPORT YOUR GROWING COMPANY

LENOVO® THINKSERVER™ RD220



In today's busy corporate environment, IT departments are looking for ways to make installing and managing their server environments efficient and cost effective without sacrificing performance. Lenovo had these needs in mind when it created the new RD220. Based on the latest Intel® Xeon® processors with a suite of intuitive software and thoughtfully designed services, our new offering is targeted at customers who need:

- A highly expandable platform to run mission critical applications including database, email, virtualization and line of business
- High performance, high capacity storage (up to 6.0TB of data)
- Built-in data protection standard on every model ensuring that hard drive failure doesn't result in data loss
- Internal tape capable for simplified backup
- Integrated advanced management and remote administration capabilities provide health monitoring and control of your server from anywhere, anytime

#### **EASIER TO USE SERVER MANAGEMENT**

The ThinkServer RD220 comes standard with Integrated Management Module (IMM) along with a suite of software tools making it easy to install and manage your server. Our latest software tools feature several usability enhancements.

#### **INTEGRATED MANAGEMENT MODULE (IMM)**

- Gives you complete around-the-clock management and remote access from an easy web interface
- Perform server management and health check functions remotely independent of the status of the server
- IMM Premium (available on select models)
  - Remote media, which enables mounting of DVD drive, USB flash drive, or disk image to a server
  - Operating system failure screen capture and display through the Web interface
  - Full remote control (video, mouse, keyboard) of your server from any location

#### **EASY STARTUP**

- Complete hardware provisioning in a wizard format takes the guesswork out of server installation
- Built in RAID configuration ensures your data is protected from the start
- An enhanced list of unattended operating system installs ensures your deployments are quick and easy
- Replication configuration allows rapid deployment and configuration of multiple servers

#### **EASY MANAGE**

- Complete multi-server management accessible from a single console making it easy to check the health of your servers from anywhere
- Built in right-click menu option takes you right to IMM
- Setup custom alerts so you're always watching exactly what's important to you

#### FIRST-CLASS SERVICE AND SUPPORT

Lenovo provides complete after-sale support with a complementary 90 day trial of ThinkPlus™ Priority Support. Delivered through our reliable and extensive network of business partners, this offer provides customers with peace of mind during the most critical time of server ownership.

- ThinkPlus Productivity provides onsite hardware installation, online training and tools to improve server performance
- ThinkPlus Priority Support offers expert IT support in a consolidated support package
- ThinkPlus Warranty provides base warranty support





## LENOVO® THINKSERVER™ RD220 SPECIFICATIONS AND SERVICES



#### Warranty

• 1 / 1 and 3 / 3 Onsite

#### **Form Factor**

• 2U 2P Rack Optimized

#### **Core Chipset**

• Intel® 5520 chipset

#### **Processor**

• Intel® Xeon® 5500 Series Processors

#### **Model Name**

• RD220

#### Memory

- 1GB, 2GB or 4GB Advanced ECC Memory DDR3
   R-DIMMs
- 16 Memory Slots up to 128 Max Memory

#### Storage

- RAID 0, 1, 1E or RAID 0, 1, 1E, 5, 6, 10, 50, 60
- 8 x 2.5" HS SAS / SATA with internal tape capable option (or)
- 12 x 2.5" HS SAS / SATA
- Multi-Burner DVD Drive

#### Connectivity

 Integrated Dual Gigabit Ethernet with TCP / IP Offload Engine (TOE) (Optional 2 additional integrated ports)

#### Management

- Built in IMM Standard
- EasyManage
- Optional IMM Premium
- Onboard virtualization connector

#### **PCI Slots**

- 4 PCI-Express (4x8) Gen 2 slots
- 2 x 8 full-length, full-height
- 1 x 8 half-length, full-height
- 1 x 8 low-profile

#### **Ports**

- 2 video ports (1 front, 1 rear)
- 5 USB ports (2 front, 2 rear, 1 internal)

#### Diagnostics

Easy LED Panel

#### Cooling

• Hot swap redundant fans

#### **Power Supply**

• 675W hot swap redundant capable

#### **Software**

- Windows® Server® 2008 (Standard and Enterprise)
- Windows Small Business Server 2008 (Premium and Standard)
- Windows Essential Business Server 2008 (Premium and Standard)
- Windows Small Business Server 2003 (Premium and Standard)
- Novell® SUSE® Linux® Enterprise Server (SLES) 10 32 / 64 bit (Novell® is Lenovo's Preferred Linux Provider for ThinkServer)

#### **Virtualization Solutions**

- Windows Server 2008 with Hyper-V Standard and Enterprise
- Novell SUSE Linux® Enterprise Server (SLES) 10 with Xen Hypervisor
- VMWare® ESX and ESXi 3.5, 4.0
- Red Hat® Enterprise Linux 5.x

A-La-Carte ThinkPlus™ Services		
Online Data Backup	Online Training	
Provides a secure, online location to backup your valuable business data. 25GB, 50GB and 100GB options	Learn the basics on components, diagnostics, trouble- shooting and managing your server	
Onsite Hardware Installation	Available in English, French, Spanish, German, Italian, Japanese and Korean	
Provides onsite installation of hardware by trained technicians		

ThinkPlus™ Bundled Service Offerings		
<b>ThinkPlus™ Warranty</b> Base Warranty Support	ThinkPlus™ Priority Support     ThinkPlus™ Producti       Consolidated Support Package     No Hassle Up-and-Running	
Warranty Extension	24x7 Hardware and Software Phone Support	Onsite Hardware Installation
Optional 4-Hour Onsite Service Response (9x5)	Priority Routing	Online Training
	Advanced Level Technicians	Priority Support
	Software Installation and Usage Support (Phone-Based)	
	Next-Business Day (9x5) Onsite Service	
	Optional 4-Hour (24x7) Onsite Service Response	
	Optional Hardware Drive Retention	







## **LENOVO® THINKSERVER™ RD220 ACCESSORIES AND OPTIONS**

DDR3 RDIMM Memory		
Faster Performance     Low Power Consumption     Advanced ECC     Memory Mirroring	67Y0014	ThinkServer 1GB PC3 - 10600 DDR3 1333 MHz RDIMM
	67Y0015	ThinkServer 2GB PC3 - 10600 DDR3 1333 MHz RDIMM*
	67Y0016	ThinkServer 4GB PC3 - 10600 DDR3 1333 MHz RDIMM*
		* Supports Advanced ECC
Intel® Xeon® 5500 Series Processors		
Simultaneous	67Y0004	Intel® Xeon® E5502 Processor (1.86 MHz) Option Kit
Multi-Threading	67Y0005	Intel® Xeon® E5506 Processor (2.13 MHz) Option Kit
Integrated Memory     Controller     Intel <sup>®</sup> QuickPath	67Y0006	Intel® Xeon® E5520 Processor (2.26 MHz) Option Kit
	67Y0007	Intel® Xeon® E5504 Processor (2.00 MHz) Option Kit
	67Y0096	Intel® Xeon® E5540 Processor (2.53 MHz) Option Kit

ThinkServer IBM Options - RD220			
ThinkServer IBM:     Tape Back-up	67Y0135	ThinkServer IBM DDS Generation 6 USB Tape (Requires 67Y0168)	
	67Y0136	ThinkServer IBM LTO Generation 4 SAS Half High Tape Drive (External)	
	67Y0137	ThinkServer IBM LTO Generation 3 SAS Half High Tape Drive (External)	
	67Y1377	ThinkServer IBM DDS Generation 6 5-Pack Media	
	67Y0138	ThinkServer IBM RDX160 Internal Bundle Tape Drive (Requires 67Y0168)	
	67Y0139	ThinkServer IBM RDX320 Internal Bundle Tape Drive (Requires 67Y0168)	
	67Y0140	ThinkServer IBM RDX500 Internal Bundle Tape Drive (Requires 67Y0168)	
	67Y1378	ThinkServer IBM LTO Generation 4 5-Pack Media	
	67Y1379	ThinkServer IBM LTO Generation 3 5-Pack Media	
	67Y0168	ThinkServer IBM RDX & DDS Tape Enablement Kit	
ThinkServer IBM:	67Y0172	ThinkServer IBM 8GB FC Single-port HBA by QLogic	
Connectivity	67Y0173	ThinkServer IBM 8GB FC Dual-port HBA by QLogic	
	67Y0174	ThinkServer IBM 8GB FC Single-port HBA by Emulex	
	67Y0175	ThinkServer IBM 8GB FC Dual-port HBA by Emulex	
	67Y0176	ThinkServer IBM 8GB FC Single-port HBA by Brocade	
	67Y0177	ThinkServer IBM 8GB FC Dual-port HBA by Brocade	
	67Y0178	ThinkServer IBM NetXtreme II 1000 Dual Port Ethernet Adapter	
ThinkServer IBM:	67Y0183	ThinkServer IBM SAS 3GB HBA Controller v2	
RAID	67Y0185	ThinkServer IBM ServeRAID M5014	
	67Y0186	ThinkServer IBM ServeRAID M5000 Series Battery Kit	
	67Y1368	ThinkServer IBM ServeRAID M1015	
ThinkServer IBM:	67Y0181	ThinkServer IBM Virtual Media Key	
System Components	67Y1370	ThinkServer IBM 675W Redundant Power Supply	
	67Y1372	ThinkServer IBM UltraSlim Enhanced SATA DVD - ROM	
	67Y1373	ThinkServer IBM UltraSlim Enhanced SATA Multi-Burner	
	67Y0180	ThinkServer IBM Dual Port 1GB Ethernet Daughter Card	

2.5" SAS and SATA HDD			
Slim Form Factor 2.5"	SAS		
• 6.0 GB/s SAS Interface	67Y0115	ThinkServer 73GB 6.0 GB/s 15K 2.5" SAS SFF HS	
<ul> <li>Low Power Consumption</li> </ul>	67Y0116	ThinkServer 146GB 6.0 GB/s 10K 2.5" SAS SFF HS	
Performance	67Y0117	ThinkServer 146GB 6.0 GB/s 15K 2.5" SAS SFF HS	
(7.2K / 10K / 15K)	67Y0118	ThinkServer 300GB 6.0 GB/s 10K 2.5" SAS SFF HS	
Hot swap Carriages	SATA		
	67Y0120	ThinkServer 160GB 7.2K 2.5" SFF HS SATA	
	67Y0002	ThinkServer 300GB 3.0 GB/s 10K 2.5" SATA SFF HS	
	67Y0121	ThinkServer 500GB 7.2K 2.5" SFF HS SATA	
ThinkServer Accessories			
<ul> <li>Keyboards</li> </ul>	Keyboards / Mice		
<ul><li>Mouse</li></ul>	31P9490	ThinkPad Travel UltraNav® USB Keyboard – US English	
<ul> <li>Monitors</li> </ul>	73P5220	Lenovo Preferred Pro Keyboard USB – US English	
	06P4069	Lenovo Optical Mouse	
	Monitors		
	9165AC6	Lenovo TV L151 Monitor: 15" Analog TFT	
	9227AD1	Lenovo TV L171 Monitor: 17" Analog TFT	
	4431HB2	Lenovo TV L193p LCD Monitor: 19" Analog / Digital	

ThinkServer Ready Options – 3 <sup>rd</sup> Party Options		
ThinkServer Ready:     Uninterruptible     Power Supplies	21301RX*	IBM® UPS 3000 LV - US
	21302RX*	IBM® UPS 3000 HV - International
	21302JX*	IBM® UPS 3000 HV - Japan Version
ThinkServer Ready:     Rack Extension Cords	39Y7932*	4.3m, 10A / 120V, c13 to IEC 320 - C14
	39Y7931*	2.8m 10A / 100 - 250V, C13 to IEC 320 - C14
	39Y7937*	1.5m, 10A / 120V, c13 to IEC 320 - C14
ThinkServer Ready:     Switches and Console     Managers	31R3132*	IBM® 3M Console Switch Cables
	17353LX*	IBM® 1x8 Console Switch
	17351GX*	IBM® 2x8 Local Console Manager
ThinkServer Ready:     Advanced RAID	43W4296*	IBM® ServeRAID-MR10i SAS / SATA Controller
	44E8826*	IBM® ServeRAID-MR10i Battery (Li-Ion Battery)
	44E8695*	IBM® ServeRAID-MR10is VAULT SAS / SATA Controller
	44E8825*	IBM® ServeRAID-MR10M SAS / SATA Controller w/ remote battery kit

\*IBM part number



## www.lenovo.com/thinkserver

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