



# Dell Precision R5400

The Dell Precision™ R5400 is a high-performance dual-socket 2U rack workstation that provides an industry-standard alternative to blade workstations providing fully scalable high-performance graphics options.

## A rack workstation that is big on performance and flexibility

Looking for a high-end workstation that delivers world-class performance and exceptional processing and graphics power, but is engineered for a high-density rack environment? Look no further. Developed in close collaboration with hardware and software partners, the Dell Precision R5400 rack workstation delivers no-compromise, high-performance workstation technologies in a flexible 2U chassis — an ideal solution for centralizing critical customer data and workstation assets in secure locations (data centers, OEM customer enclosures, etc.). This is particularly attractive for high-performance clusters/render farms, crowded heat and acoustically sensitive environments like financial trading or factory floors. Optimized for performance, reliability and scalability in environments where space is at a premium, the Dell Precision R5400 lets you power through complex tasks with configuration options simply not available on blade workstations today.

## Visual realism with high-performance open GL graphics

Dell Precision workstations offer an intelligent selection of high-performance graphics cards that can satisfy a range of customer needs, from outstanding OpenGL® 3D performance to dependable 2D performance. With its two PCIe x16 slots, the Dell Precision R5400 is well equipped to house high-performance graphics cards to help meet the toughest of visualization challenges. Select from a wide range of industry-standard cards while retaining the option to change or upgrade at a later date.

## Optimal scalability in a compact 2U chassis

The Dell Precision R5400 provides a highly scalable, cost-effective architecture that can easily be housed in a rack without the expense and potential redundant rack space associated with an enclosure for blades. Workstations address many different user needs and run a wide variety of applications, using graphics and other industry standard cards. The flexibility of this rack workstation is enhanced by a choice of PCI, PCIx or PCIe slot combinations — in addition to the graphics slots — making it easy to optimize for a particular solution.

## Peace of mind through ISV application certification

Dell partners with leading ISVs to certify system and application compatibility, ensuring optimized performance in demanding

workstation environments. And, to assure access to the latest productivity enhancing technology solutions, Dell invests in the workstation ISV community by providing the hardware platforms needed to further multithreaded and 64-bit application development. By maintaining strong relationships with ISV application developers, Dell engineers can provide ongoing optimization and support, should you need it.

## Advanced remote access to the performance of the Dell Precision R5400

The full performance of the Dell Precision R5400 can be accessed by using the optional Dell FX100 Remote Access Device. Part of Dell's Flexible Computing initiative, this solution (host card and remote user portal) benefits from having dedicated hardware running Teradici® PC-over-IP® (PCoIP) technology that leaves the workstation's CPU and network resources available to run the chosen applications. A more flexible and low-cost alternative to traditional wired KVM remote solutions, the Dell FX100 can deliver an outstanding remote user experience (network infrastructure dependent). For virtual remote desktop environments (no host card needed) the Dell FX100<sup>1</sup> is a certified PCoIP Hardware Zero Client with VMware View™ 4 enabling simple plug-and-play access to VMware View 4 Virtual Desktops. Please refer to the Dell FX100 Remote Access Device product brochure for more information on this world-class solution.

## A new solution for some old challenges

The Dell Precision R5400, with the optional remote access solution, offers advanced relevant technologies designed to overcome some tough traditional challenges and succeed where other solutions have struggled to deliver:

- Centralizing critical data and applications in a secure location
- Eliminating the need for workstation users to be in inhospitable areas
- Enabling high-performance clustering using GPGPUs (General Purpose GPUs)
- Enabling flexible resource allocation (24-hour usage models)<sup>2</sup>
- Enabling faster moves and changes as project teams are reassigned — retaining benefits of a standards-based workstation
- Addressing the distance limitations of traditional wired KVM solutions with optional Dell FX100 remote access device

Feature	Dell Precision R5400 Rack Workstation Technical Specifications
Processors	Dual-Core (6MB L2 cache) & Quad-Core (2X 6MB L2 cache) Intel® Xeon® Processors.
Operating System	<ul style="list-style-type: none"> <li>• Genuine Windows® 7 Professional 32-bit</li> <li>• Genuine Windows 7 Professional 64-bit</li> <li>• Genuine Windows 7 Professional 32-bit with downgrade rights service to Windows® XP Professional</li> <li>• Genuine Windows 7 Professional 64-bit with downgrade rights service to Windows XP Professional x64 Edition</li> <li>• Genuine Windows 7 Ultimate 32-bit</li> <li>• Genuine Windows 7 Ultimate 64-bit</li> <li>• Genuine Windows 7 Ultimate 32-bit with downgrade rights service to Windows XP Professional</li> <li>• Genuine Windows 7 Ultimate 64-bit with downgrade rights service to Windows XP Professional x64 Edition</li> <li>• Genuine Windows Vista® Business 32-bit</li> <li>• Red Hat® Enterprise Linux WS v.5.3 EM64T (Also certified to run Red Hat Enterprise Linux Version 4 64-bit)</li> </ul>
Chipset	Intel 5400 chipset, which supports multi-core Intel Xeon Processors, advanced ECC memory and scalable industry-standard graphics and storage options
Memory	Up to 32GB <sup>3</sup> quad-channel <sup>4</sup> architecture fully buffered DIMM 667MHz ECC memory; in 4 DIMM slots
Flash BIOS Graphics & GPU Computing	<ul style="list-style-type: none"> <li>• BIOS 8MB flash memory for system BIOS; SMBIOS 2.5 support</li> <li>• Support for 2 PCI Express x16 graphics cards up to 150 watts (in 2 x16 Gen1 PCI-e slots) including: NVIDIA® Quadro® FX 5800; NVIDIA Quadro FX 4800; NVIDIA Quadro FX3800; NVIDIA Quadro FX 1800; NVIDIA Quadro FX580; NVIDIA Quadro NVS 295; ATI FirePro™ V8700; ATI FirePro V5800; ATI FirePro V5700; ATI FirePro V4800; ATI FirePro V3750</li> <li>• Supports NVIDIA Tesla™ C1060 Computing Processor (1) and the NVIDIA Tesla S1070 1U GPU Computing System</li> <li>• All graphics cards support dual monitor configurations</li> </ul>
Hard Drives	The Dell Precision R5400 can be ordered with up to 2 SATA hard drives, with a potential capacity of 1.5TB <sup>4</sup> . And with RAID 0 or 1 options, you can configure your storage to meet your needs for storing extremely large files or helping improve performance with data-stripping. SATA 3.0GB/s 7200 RPM with 16MB DataBurst Cache™ up to 1.0TB <sup>4</sup> ; SATA 3.0GB/s 7200RPM with 8MB DataBurst Cache up to 250GB <sup>4</sup> ; SATA 3.0GB/s 10K RPM with 16MB DataBurst Cache up to 300GB <sup>4</sup>
Hard Drive Controller	The Dell Precision R5400 uses an Integrated SATA 3.0GB/s controller that supports host-based (software) RAID 0, 1
Network Controller	Dual Broadcom® NetXtreme 10/100/1000 Gigabit Ethernet controllers
Audio Controller	Integrated high-definition audio (Rev 1.0 Specification) with Sigmatel STAC9200 High-Definition Audio CODEC and Intel ESB2's integrated AC97/high-definition digital controller.
Standard I/O Ports	Six USB 2.0: two on front panel, three on back panel, and one internal; two serial; two PS/2; two RJ-45; stereo line-in and line-out on back panel
Bays	Two internal 3.5" hard disk drive bays; one external 5.25" slim-line optical bay
Slots	All full height and full length accommodated in two risers: Riser 1: two standard PCIe x16 Gen 1 full length graphics slots each with 150W (300W total) Riser 2: either: (1) PCIX 64-bit @ 100MHz; (1) PCIe x16, wired as x8 (default) Or: (1) PCIX 64-bit @ 100MHz; (1) PCI 32-bit; 5V
<b>Chassis (2U Rack)</b>	
Dimensions	27" (68.5cm) D x 17.5" (44.4cm) W x 3.4" (8.6cm) H without bezel attached
<b>Peripherals</b>	
Monitors	Performance flat-panel displays, Dell UltraSharp™ widescreen and standard flat-panel displays from 17" viewable to 30" viewable
Keyboard	Dell Enhanced Quietkey™ USB; Enhanced Multimedia USB; Smart Card keyboard USB
Mouse	Dell USB two-button mouse and Dell USB optical two-button scroll mouse
Optional Speakers	Internal chassis speaker; Dell two- and three-piece stereo system; Dell sound bar for all flat-panel displays
<b>Storage Devices</b>	
Optional Removable Storage	CD-RW/DVD Combo, DVD-ROM, DVD+/-RW, USB external floppy drive
Optional Connectivity	IEEE 1394a card; Broadcom® NetXtreme 10/100/1000 Gigabit Ethernet controller PCI Express® card
<b>Security</b>	
Software	Trusted Platform Module 1.2 (TPM 1.2); chassis intrusion switch; Setup/BIOS password; I/O interface security
Hardware	Front bezel key lock, top chassis cover lock
<b>Environmental &amp; Regulatory</b>	
	You can find additional safety best practices information on the Regulatory Compliance homepage on <a href="http://www.dell.com">www.dell.com</a> at the following location: <a href="http://www.dell.com/regulatory_compliance">www.dell.com/regulatory_compliance</a>
<b>Service &amp; Support</b>	
Base	3-Year Limited Warranty <sup>5</sup> with 3-year standard Next-Business-Day (NBD) on-site <sup>6</sup> parts replacement and 3-year NBD on-site service <sup>6</sup>
Recommended	Dell ProSupport is designed to rapidly respond to your business' needs, protect your investment and sensitive data, and provide enhanced proactive support services to help reduce risk and complexity within your IT environment

## Simplify your workstation at [dell.com/Precision](http://dell.com/Precision)

<sup>1</sup> VMware View™ 4 PCoIP® Hardware zero client support on the Dell FX100 requires PCoIP firmware release 3.X.

<sup>2</sup> Microsoft may require a Remote Desktop license for the Dell FX100 under certain serial usage models. Please consult with Microsoft for details.

<sup>3</sup> Up to 1GB may not be available with 32-bit operating systems due to system resource requirements.

<sup>4</sup> GB means 1 billion bytes and TB equals 1 trillion bytes; actual capacity varies with preloaded material and operating environment and will be less.

<sup>5</sup> For a complete copy of our guarantees and limited warranties, please write Dell U.S.A. L.P., Attention: Warranties, One Dell Way, Round Rock, TX 78682. For more information visit [www.dell.com/warranty](http://www.dell.com/warranty)

<sup>6</sup> May be provided by third-party. Technician dispatched, if necessary, following phone-based troubleshooting. Availability varies. See [dell.com/service](http://dell.com/service) contracts for details.

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