

## Customer Presentation: ThinkStation S20 and D20



# Introduction

Lenovo Think-branded systems are known for being the ultimate business tools, and ThinkStation systems are no different. We proved that point with the introduction of the ThinkStation S10 and D10, and now we build on that promise with the unveiling of the new S20 and D20. They are more powerful, reliable, quiet, and energy efficient than their predecessors.

ThinkStation is the most thoughtfully designed workstation engineered to deliver the high performance specialized professionals crave. The ThinkStation thermal design makes it reliable and quiet for a more enjoyable customer experience. The ergonomic handle makes it easier to manage and carry.



# ThinkStation S20 and D20: Comparison

## ThinkStation S20



- Intel® Xeon® processors
- Intel® X58 Chipset
- 1333 MHz DDR3 ECC UDIMM Memory
- 1066 MHz DDR3 ECC UDIMM Memory
- 625W Power Supply
- 2x NVIDIA® Quadro® FX Support
- 2x ATI FirePro™ Support
- 3 HDD Bays
- SATA RAID Standard
- Rackable via rack shelf

## ThinkStation D20



- Intel® Xeon® processors
- Intel® 5520 Chipset
- 1333 MHz DDR3 ECC UDIMM Memory
- 1066 MHz DDR3 ECC UDIMM Memory
- 1066 MHz DDR3 RDIMM Memory
- 1060W Power Supply
- 2x NVIDIA® Quadro® FX Support
- ATI FirePro™ and SLI Support
- 5 HDD Bays
- SAS Support Standard
- SATA and SAS RAID Standard
- Rack mountable via rail kit

# What's New on the ThinkStation S20 and D20

Lenovo ThinkStation systems are designed for professional users running graphic and compute-intensive applications that require the highest levels of performance. ThinkStation S20 and D20 systems have a lot to offer these customers.

## Powerful

- New Intel® Xeon® processors are faster and more energy-efficient than previous generation
- Powerful new ATI FirePro™ graphics cards
- NVIDIA® Tesla™ GPU computing solution for an extra 240 cores of dedicated math processing power Lean preloads with no extraneous applications to hinder performance
- Faster ECC (Error Correcting Code) memory running with speeds up to 1333 MHz
- 10000 RPM 2.5" SATA HDD
- In board memory controller
- Intel® Turbo Boost technology

## Green

- Many models are EPEAT Gold rated and GREENGUARD Certified
- More than 50% recycled plastics, including post-consumer content
- All models RoHS compliant
- Most models are ENERGY STAR 5.0 certified

## Silent

- 24db idle operating noise level makes ThinkStation systems nearly undetectable

## Reliable

- Designed for maximum cool air delivery, reducing the risk of hardware failure
- Powered memory coolers to ensure 100% peak performance.\*

\*Note: only configs with 4GB capacity RDIMMS or above installed



# Features and Benefits of ThinkStation S20 and D20

Latest Intel Technology

Powerful Graphics

Environmentally Friendly

Outstanding Design

ISV-Tested and Certified



## Latest Intel Technology

ThinkStation D20 systems include up to dual Intel® Xeon® 5500 Series processors. The S20 offers customers a choice of Intel Xeon W3500 Series and Intel Xeon 5500 Series.

Intel Xeon processors deliver world class performance combined with superior energy efficiency to provide a single, scalable foundation for optimized processors across each segment and power envelope.

# Features and Benefits of ThinkStation S20 and D20

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## Powerful Graphics

New ThinkStation S20 and D20 models offer NVIDIA Quadro adapters along with powerful ATI FirePro graphics. Select D20 configurations now offer NVIDIA SLI technology, for extreme graphics.

Together they pave the way for high-end professional graphic performance not possible on conventional desktop systems.

# Features and Benefits of ThinkStation S20 and D20

Latest Intel Technology

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## Environmentally Friendly

High performance workstations don't always conjure images of energy efficiency and environmentally-friendly computing, but the ThinkStation line has a lot to offer under the heading of "green:"

- Many models are EPEAT Gold rated
- More than 50% recycled plastics, including 26% post-consumer content
- All models RoHS compliant
- Most models are ENERGY STAR 5.0 certified
- ThinkStation is now certified for ultra-low emissions

# Features and Benefits of ThinkStation S20 and D20

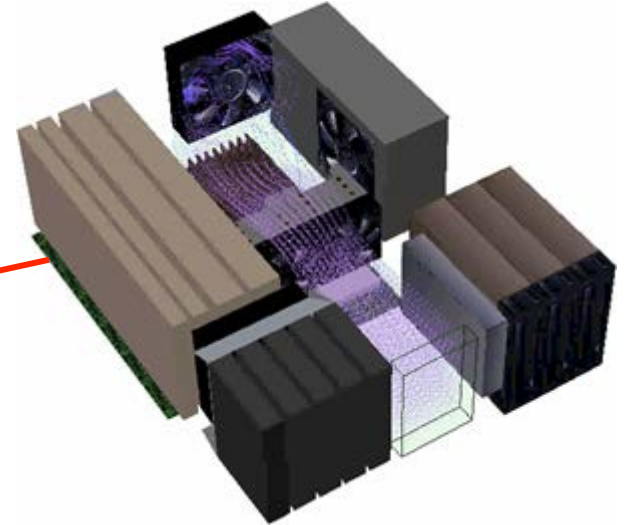
Latest Intel Technology

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## Outstanding Design

ThinkStation's thoughtful design makes it extremely manageable, while its rock-solid engineering makes it quiet and highly reliable.

ThinkStation's superior thermal design allows it to deliver exceptional power and performance while maintaining roughly the same acoustic (aka noise) levels as a standard desktop PC. ThinkStation S20 and D20 systems operate at an idle noise level of less than 24db, making them nearly undetectable.





# Features and Benefits of ThinkStation S20 and D20

Latest Intel Technology

Powerful Graphics

Environmentally Friendly

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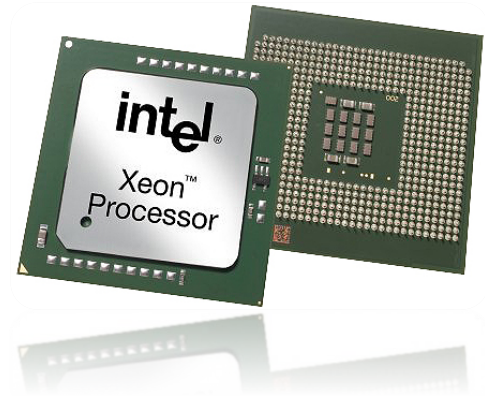


## ISV-Tested and Certified

ThinkStation has been tested and certified on key workstation ISV applications for CAD, Digital Content Creation, and Engineering Design Automation users. This ensures the best possible compatibility between hardware and applications.

# Intel® Xeon® Processors

The ThinkStation S20 and D20 feature the latest powerful Intel® Xeon® processors so users can work differently to increase workflow, enhance innovation, and decrease time to market.



New Intel Xeon processors have a lot to offer:

- 45nm technology for energy-efficient multi-core processing
- More instructions per clock and improved caching
- Dynamic Power Management to reduce energy consumption during low utilization periods
- Intel® Turbo Boost technology for additional power during peak processing times

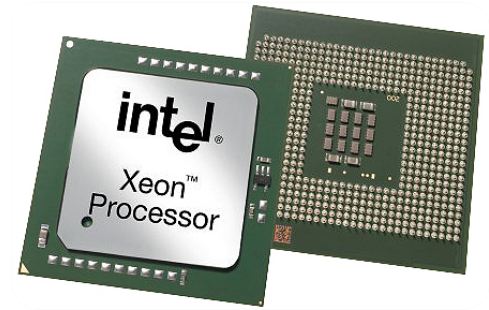


## Intel® Xeon® Processors (cont.)

New Intel® Xeon® processors offer intelligent performance and automated energy efficiency.

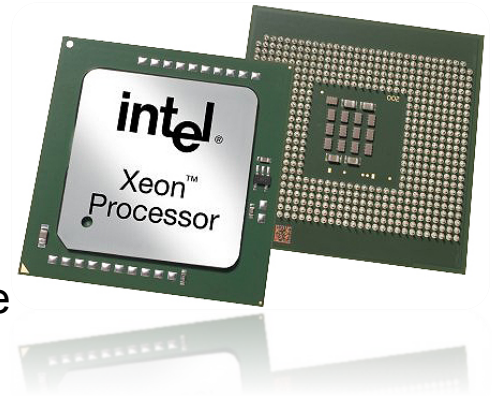
**Intelligent Performance.** The Intel® Xeon® E5500 Series delivers up to 3.5 times as much bandwidth for technical computing as the previously available Intel Xeon 5400 series. It offers up to 2.25 times the performance for enterprise computing. And it provides twice the speed of the 5400 Series as it relates to software threads and on-demand performance boosts.

**Energy Efficiency.** The Intel® Xeon® E5500 Series provides the highest system level performance per watt of any Intel Xeon processor to date. These processors allow cores to be dynamically turned on or off according to performance needs. By enabling lower system idle power, they help customers reduce their Energy costs.



# Intel® Xeon® Processors (cont.)

By employing two Intel® Xeon® Processors—a total of eight computational engines in a single system—users can significantly speed up individual applications and run multiple programs at once without any concern of performance degradation.



What does it mean to our customers to have more Intel Xeon Cores at their disposal? At the most basic level, it means they can go from idea to product, from concept to reality faster than ever before.

Industry	Want	Deliver
Manufacturing	<ul style="list-style-type: none"><li>• Simulation and analysis-based design</li><li>• Digital prototyping</li></ul>	<ul style="list-style-type: none"><li>• Optimized design cycles</li><li>• Increased innovation</li></ul>
Digital Content Creation	<ul style="list-style-type: none"><li>• 2D prepress, Web, video layouts</li><li>• Rich design visualization</li></ul>	<ul style="list-style-type: none"><li>• Integrated toolkits enable innovation</li><li>• Work with large complex scenes</li></ul>
Oil and Gas	<ul style="list-style-type: none"><li>• Reservoir exploitation</li></ul>	<ul style="list-style-type: none"><li>• Streamline simulation and visualization</li></ul>
Software Creation	<ul style="list-style-type: none"><li>• Software performance maximization</li></ul>	<ul style="list-style-type: none"><li>• Faster testing, validation, and quality</li></ul>

# ThinkVision Monitors

ThinkVision monitors offer a low total cost of ownership by consuming less electricity. They are thoughtfully designed to reduce hazardous materials, use more recycled materials and at the same time deliver a high performance image. In addition, rock solid engineering allows ThinkVision monitors to be extremely durable, reliable, and environmentally responsible. Lenovo recommends the following monitors for the ThinkStation S20 and D20.

## Best: **L2440x Wide**

The ThinkVision 2440x Wide is best suited for CAD/CAM applications or content creation users with a strong eco-friendly mind.

## Better: **L2440p Wide**

The ThinkVision L2440p Wide is designed for users running professional applications.

## Good: **L2240p Wide**

Perfect for professional data-crunchers and notebook users looking for productivity improvements. It is also ideal for a multi-monitoring environment.



# ThinkPlus Services

## Top 5 Services for ThinkStation S20 and D20

1. 3 Yr Priority Support
2. 4 Yr Priority Support + Warranty
3. 5 Yr Priority Support + Warranty
4. 1 Yr 50 GB Online Data Backup
5. 4 Yr Onsite NBD Warranty



NOTE: Please refer to your country Services marketing page for more information  
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# ThinkPlus Warranty Services

Lenovo offers robust Warranty Upgrades and Post Warranty Maintenance Agreements to meet the needs of every type of user. Depending on their needs, customers may select from packages with varying response times. Customers with longer refresh cycles will appreciate Lenovo enhanced warranty service levels and should enjoy having the ability to choose the response time that best suits their organization.

Warranty Services are for customers who:

- Require response times of one day or less
- Require longer term warranty periods
- Require same-day on-site response
- Are in mission-critical environments
- Have a planned refresh cycle of more than three years
- Require high availability
- Require an online data backup solution

# ThinkPlus Priority Support

## *What Is It?*

- A single comprehensive fee-based service plan that gives customers direct access to advanced technical support—*faster* than basic support.
- ThinkPlus Priority Support is available for purchase on all Lenovo Think-branded systems.
- Customers can select systems to be covered—not all PCs may need Priority Support.

## *What Does It Do?*

- Reduces overall helpdesk costs by reducing the time IT staff spends on basic PC troubleshooting while providing a higher level of service.

## *What Does It Include?*

- 24x7 local language phone support\*
- Direct access to advanced-level technicians
- Priority call routing, <1min. Answer time (typical)
- Warranty upgrade to NBD onsite service
- Electronic service call tracking system (EST)
- 3rd party SW support
- Escalation Management process





# Online Data Backup



Data protection and security are growing concerns for all businesses. And because our customers rely on Lenovo PCs to house this critical data, we offer additional peace of mind with Online Data Backup.

- “Set It and Forget It” with a **simple** solution that automatically and continuously finds and backs up your files
- Worldwide access to files through **online** interface
- Peace of mind with **secure** offsite data storage

Lenovo Online Data Backup is available in select countries: Australia, Austria, Canada, France, Germany, Indonesia, Ireland, Italy, Japan, Mexico, New Zealand, Philippines, Singapore, South Africa, Spain, Switzerland, UK, and US.

# Asset Recovery, Recycling, & Disposal

Lenovo Asset Recovery Service (ARS) is a convenient end-to-end solution for secure asset disposal that also offers a cash-back credit for future Lenovo technology investments. Lenovo manages the process from environmentally-responsible asset disposal and recycling to secure data destruction and disk wiping.

The service is currently offered in AG, EMEA and China. It will be available in AP/J in Spring of 2009. Lenovo has ARS capabilities in 23 countries and has relationships with best-of-breed partners.

ARS is provided on a special bid basis.



# Customer Needs: ThinkStation S20 and D20

When is ThinkStation the right choice?

*When Workstation Levels of Performance are a Necessity*

ThinkStation systems offer the latest Intel® technology that enables massive throughput and productivity improvements.

*When High-end Graphics Capability is a Must*

ThinkStation systems include powerful Quadro® graphics adapters from NVIDIA® and ATI FirePro™ graphics adapters. Together they provide faster and more powerful professional graphics, not available on regular desktop systems.

*When ISV Application Certification is Essential*



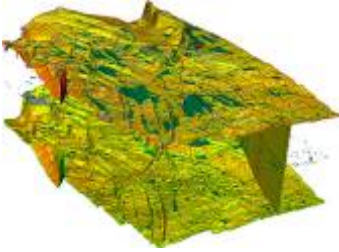
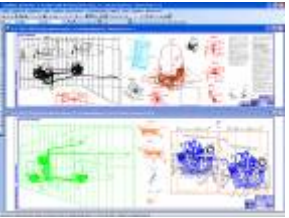
ThinkStation has been tested and certified on key workstation ISV applications for CAD, DCC, and EDA users. This ensures maximum compatibility between hardware and applications.



# Target Markets for the ThinkStation S20 and D20 (cont.)

Which vertical markets are best served by ThinkStation systems?

- Computer Aided Design/Manufacturing (CAD/CAM) users rely on workstations for product design, styling, molding, and machining.
- Digital Content Creation (DCC) users rely on workstations to help them with 2D and 3D animation, desktop publishing, video editing, and game creation.
- Oil & Gas/Geographical Information Systems (GIS) users rely on workstations to do their reserve mapping, visualization, and simulation.
- Engineering Design and Automation (EDA) users rely on workstations for IC design and manufacturing.

Computer Aided Design and Engineering (CAD / CAE)	Digital Content Creation (DCC)
	
Scientific – Oil and Gas	Engineering Design Automation (EDA)
	

# Target Markets for the ThinkStation S20 and D20 (cont.)

Which ThinkStation is right for your business?

D20



For customers who demand the highest performance and reliability

Industries: Oil & Gas, high-end CAD/CAM/CAE, 3D DCC, Video

*Applications: Dassault Systèmes Catia, Autodesk Maya, Adobe Production Premium*

S20



For customers who need workstation-class performance and reliability (i.e., a desktop PC isn't enough)

Industries: EDA, mid-range CAD, 2D DCC

*Applications: Autodesk AutoCAD, Adobe Photoshop*

# Summary

Lenovo ThinkStation systems are engineered to deliver the high performance that specialized professionals crave.

## Key Points

- Lenovo ThinkStation systems are designed for customers running advanced graphic- and compute-intensive applications.
- ThinkStation D20 and S20 systems are more powerful, reliable, quiet, and energy efficient than their predecessors.
- ThinkStation systems have been tested and certified to work with key workstation ISV applications.

## The Bottom Line

For customers demanding ultimate performance and reliability, the Lenovo ThinkStation S20 and D20 delivers all that plus superior usability attributes, contributing to a premium ownership experience.



See Attachments for a printable summary.



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