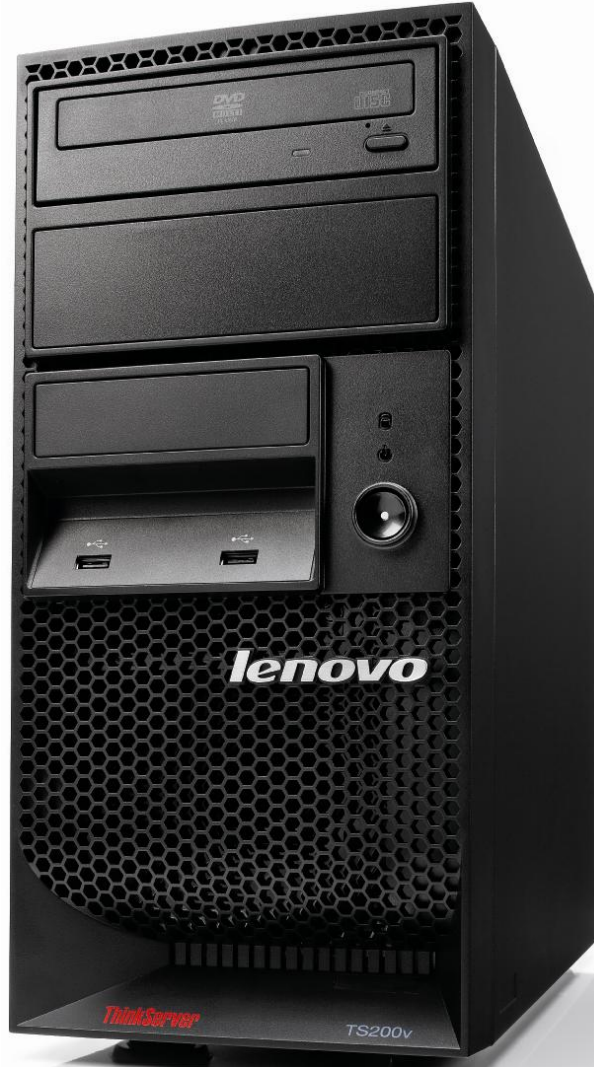


ThinkServer TS200v

Systems Management:

Setup and Use on Your ThinkServer TS200v

V3.0
27th April 2010



ThinkServer TS200v

For the first time, full “always-on” systems management as standard in an entry level server:

Intel AMT Technology
- a unique differentiator for the ThinkServer TS200v

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Managing your Thinkserver TS200v – Choices

You have a choice when it comes to managing your ThinkServer TS200v server:

- **If you already use Lenovo's EasyManage tool to manage other ThinkServers in your organisation, then by loading an EasyManage Agent onto your TS200v, you can manage your new server in the same way:**
 - *The ThinkServer EasyManage Agent enables other systems on the network (including the ThinkServer TS200v) to be managed by the centralised EasyManage console. The ThinkServer EasyManage Agent is supported on 32-bit and 64-bit Windows, RedHat and SuSE Linux operating systems*
 - *To install the ThinkServer EasyManage Agent, you must already have a core server running the ThinkServer EasyManage Core Server program. The ThinkServer EasyManage Agent must be installed from that core server. Refer to the ThinkServer EasyManage Core Server documentation about Agent deployment for instructions on the various ways to deploy the ThinkServer EasyManage Agent to your new server. Further information is also provided in the TS200v Installation and User Guide included with your system.*
 - *Also, the ThinkServer EasyStartup program provides an option to install the ThinkServer EasyManage Agent as part of the operating system installation process.*
- **Use the in-built Intel AMT system management functionality in the TS200v:**
 - *The ThinkServer TS200v is the world's first server to incorporate Intel's Active Management Technology (AMT) to provide a flexible and comprehensive server management environment with both local and remote access. It can also integrate fully with Intel vPro-compliant client devices on the network, allowing you to manage them using exactly the same interface.*
 - *The exact functionality delivered by AMT depends on the particular model of ThinkServer TS200v that you have, and in particular, the Intel processor it contains (see functionality table on a subsequent page).*

The rest of this document concentrates on how to set up and use the Intel AMT technology on your ThinkServer TS200v server to manage your new system

AMT functionality by TS200v model

G1101/G6950/Core i3-BASED SYSTEMS (eg. TopSeller SPO11UK)	Core i5-BASED SYSTEMS (eg. SPO18UK, SPP17UK)
Standard Manageability	AMT 6.0 (in addition to Standard Manageability)
<ul style="list-style-type: none"> ▪ Full Asset Management Capability (HW & SW inventory) 	<ul style="list-style-type: none"> ▪ Fast Access (inside or outside firewall)
<ul style="list-style-type: none"> ▪ Remote Control Functionality 	<ul style="list-style-type: none"> ▪ Remote Scheduled Maintenance (pre-schedule auto connection to console for maintenance)
<ul style="list-style-type: none"> ▪ Event Management 	<ul style="list-style-type: none"> ▪ Automatic Remote Alerts
<ul style="list-style-type: none"> ▪ Firmware Update (Local and Remote) 	<ul style="list-style-type: none"> ▪ Secure Networks (adds support for Microsoft NAP enabled 802.1x networks)
<ul style="list-style-type: none"> ▪ Support over TCP/IP, SOAP, TLS Infrastructure 	<ul style="list-style-type: none"> ▪ Access Monitor (provides oversight of access attempts to support enhanced security)
<ul style="list-style-type: none"> ▪ Agent Presence Monitoring 	<ul style="list-style-type: none"> ▪ Full Secure Remote Control of Keyboard/Video/Mouse (inc. startup/shutdown, "BlueScreen"/OS freeze, disk failure, network issues)
<ul style="list-style-type: none"> ▪ WakeUp-On-Lan 	<ul style="list-style-type: none"> ▪ Alarm Clock (local timers to execute management tasks)
<ul style="list-style-type: none"> ▪ Operation Over Secure Networks (802.1x and Cisco SDN) 	<ul style="list-style-type: none"> ▪ Intel Remote PC Assist Technology (secure service provider connection when required)
<ul style="list-style-type: none"> ▪ Encrypted/Remote Power-On/Off (irrespective of state of server) 	<ul style="list-style-type: none"> ▪ IPv6 support
<ul style="list-style-type: none"> ▪ Remote Diagnosis & Repair (SOL/IDE-R - irrespective of state of server) 	
<ul style="list-style-type: none"> ▪ System Defence (network filtering, HW-based isolation and recovery) 	

Exact management functionality delivered by either Standard Manageability or AMT 6.0 + Standard Manageability depends to some extent on the management tool used to access it (eg. raw web access, VNC KVM, Intel Commander, or dedicated management packages such as EasyManage, Kaseya, etc).

How to access AMT on your TS200v

Several choices, depending on your server

Out of the box choices:

AMT Version	UK TopSeller Model	Local Console (eg. KVM connected directly to server, Intel Commander Tool running locally)	Web Access (eg. web browser with IP address to access dedicated web server directly)	AMT Protocol (eg. dedicated app such as Intel Commander Tool to access AMT functionality over the Internet)	VNC KVM Tool (eg. full remote KVM access over the internet)
Standard Manageability (AMT 3.0)	SPO11UK	YES	YES	YES	NO
AMT 6.0 (inc. Standard Manageability)	SPO18UK	YES	YES	YES	YES
	SPP17UK	YES	YES	YES	YES

Other options:

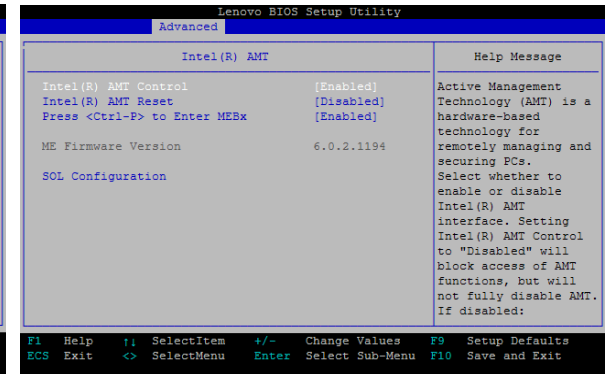
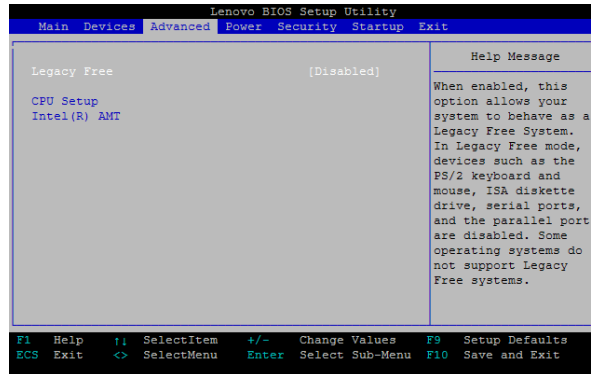
- If you already have an existing management framework to manage the Intel vPro-compliant PC and Notebook estate in your organisation, then it is likely you will be able to use the same infrastructure to manage your ThinkServer TS200v server as they are based on compatible underlying management technology. Consult the documentation for your existing management tools or your reseller to determine what is possible
- Typical remote infrastructure management tools used by Managed Service Providers (MSPs) natively support Intel AMT systems management technology (eg. EasyManage, Kaseya, Level Platforms, etc) – if these are used in or by your organisation, then they can also be used to manage the ThinkServer TS200v. Ask your MSP.

Managing your ThinkServer TS200v server with Intel AMT

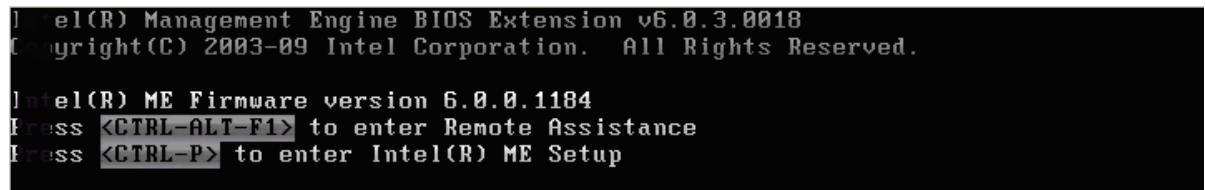
Configuring your ThinkServer TS200v server to enable/provision AMT (1)

APPLIES TO ALL TS200v MODELS

1. Boot your TS200v
2. **OPTIONAL (NOT required if server being configured for 1st time): Go into BIOS and switch Intel AMT Reset to "Enabled". This will clear any existing AMT provisioning information stored.**



3. **When prompted, enter the Intel® Management Engine BIOS Extension (Intel®MEBX). This is done by pressing Ctrl-P when prompted.**

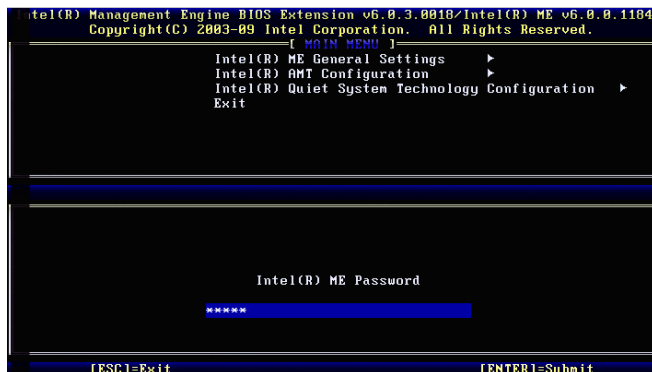


Managing your ThinkServer TS200v server with Intel AMT

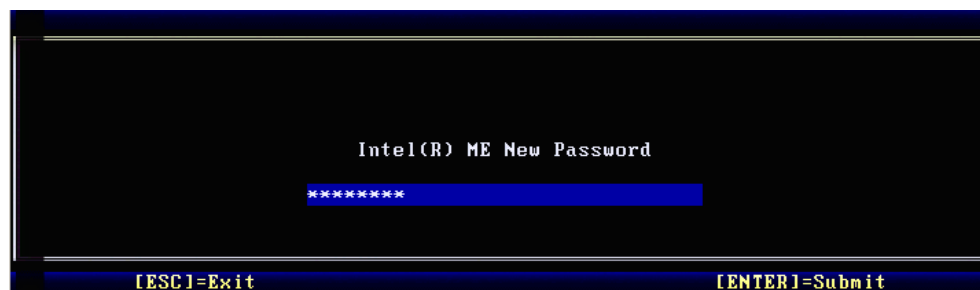
Configuring your ThinkServer TS200v server to enable/provision AMT (2)

APPLIES TO ALL TS200v MODELS

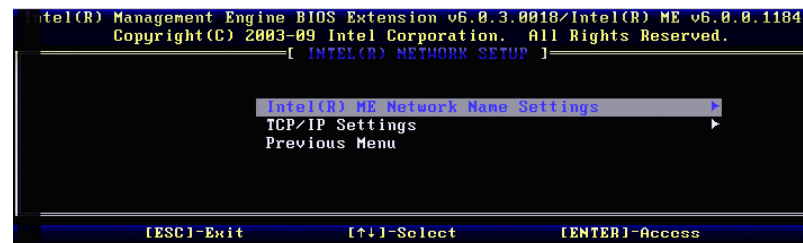
4. You will be prompted for the Intel MEBX password. The default password is “*admin*”. Enter the password as shown right.



5. Next you are prompted to enter a new password. It must be at least 8 characters, and contain at least one upper and one lower case letter, one number, and one symbol such as @ or \$. Choose a new password and enter it twice, as shown right.



6. Now set up the Intel® Management Engine. Enter the Intel® ME General Settings menu and select Network Setup. If you want to configure your own hostname or IP address, this is the place to set it up.



Managing your ThinkServer TS200v server with Intel AMT

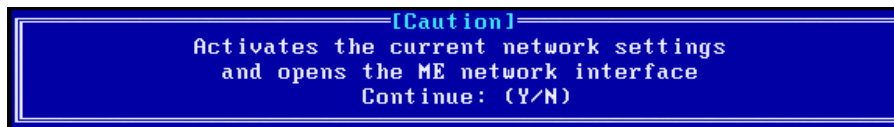
Configuring your ThinkServer TS200v server to enable/provision AMT (3)

APPLIES TO ALL TS200v MODELS

7. Enter the Intel® ME General Settings menu and select Activate Network Access

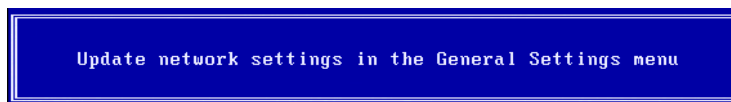


8. Type Y to answer yes when prompted.

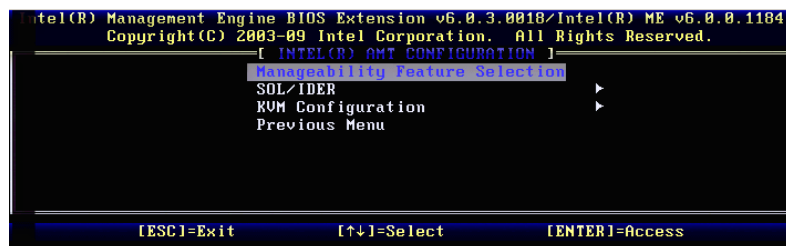


9. Press Esc key three times to return back to the main menu and select Intel (R) AMT Configuration.

Press the Enter key to bypass the prompt shown right.



10. Go into each submenu and change all options to Enable. (SOL, IDER, Legacy redirection mode, KVM Configuration) Ignore Opt-in section.

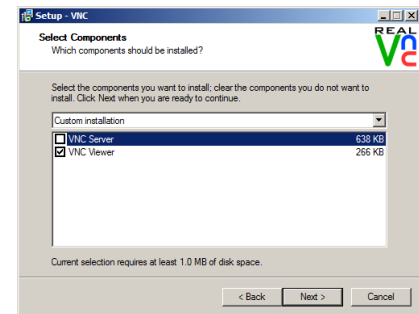


Configuring a client device to be a management console for your ThinkServer TS200v

Step-by-step configuration (1)

APPLIES TO AMT 6.0 COMPLIANT TS200v MODELS ONLY

1. Download the latest version (4.1 as of this writing) of RealVNC's VNC Free Edition viewer from the following URL:
<http://www.realvnc.com/vnc/features.html>
2. During the installation, select VNC Viewer only and finalize the installation process
3. Configure WinRM, which is needed to send WS-Man commands to Intel AMT. These commands allow the remote configuration of KVM Remote Control. WinRM is included with Windows Vista, Windows 7, and Windows 2008. If you have Windows XP or Windows 2003 Server, you must download and install WinRM.
<http://www.microsoft.com/Downloads/details.aspx?FamilyID=845289ca-16cc-4c73-8934-dd46b5ed1d33&displaylang=en>
4. Attached kvm.zip file with includes from Intel to automatically configure WinRM for you. Extract the content and run KVM.hta file. If you have User Account Control enabled, rightclick KVM.hta and select Run as Administrator.
5. Click on Configure WinRM



kvm.zip



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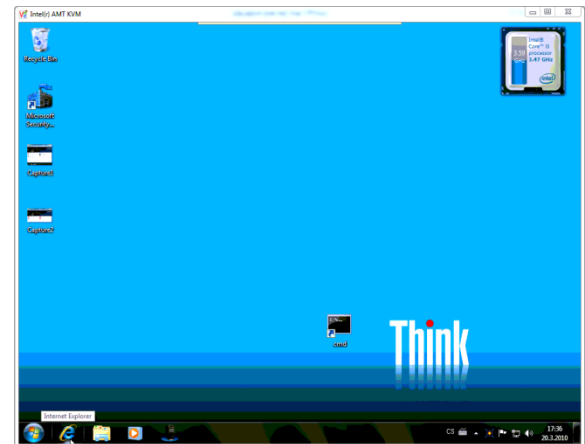
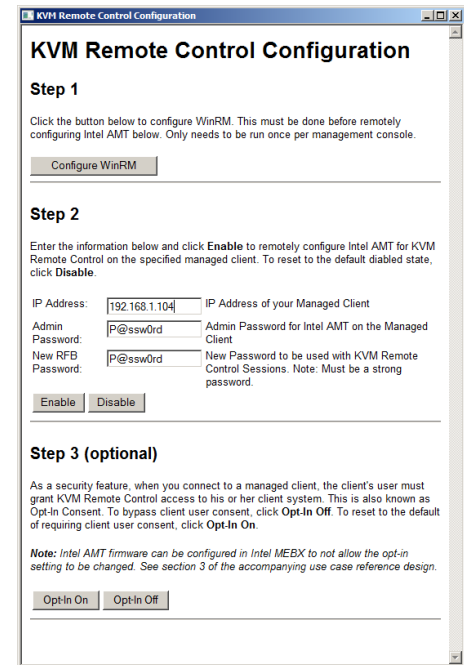
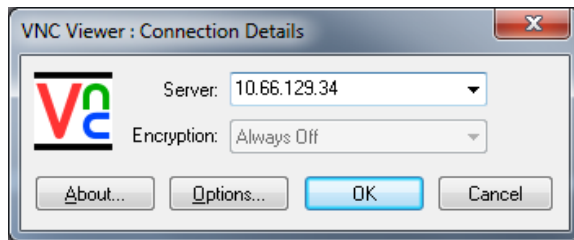
Configuring a client device to be a management console for your ThinkServer TS200v

Step-by-step configuration (2)

APPLIES TO AMT 6.0 COMPLIANT TS200v MODELS ONLY

- In Step 2, type in the IP address of the machine and Intel AMT Admin Password.**
- Enter a new RFB password. Be sure to use a strong password (must be EXACTLY eight characters long)**
- Click Enable to configure the managed client's Intel AMT firmware for KVM Remote Control using the settings you have entered**

Once all these steps are executed, you will be able to access remote machine using VNC

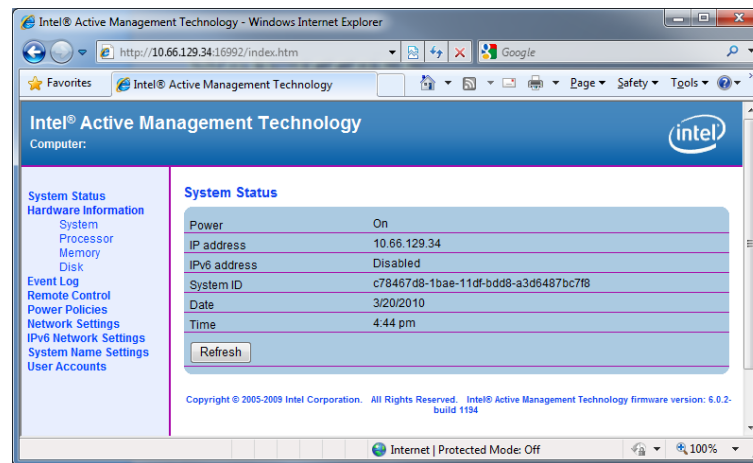


Web access

APPLIES TO ALL TS200v MODELS

- Web access is automatically enabled as soon as you finish the server configuration steps.
- In order to access the AMT systems management, you need a web browser and the IP address of the server. Simply type the IP address with port number 16992 into the browser address bar
- Don't forget "<http://>" in front of the IP address

Example: <http://xxx.xxx.xxx.xxx:16992> (xxx.xxx.xxx.xxx stands for server IP address)



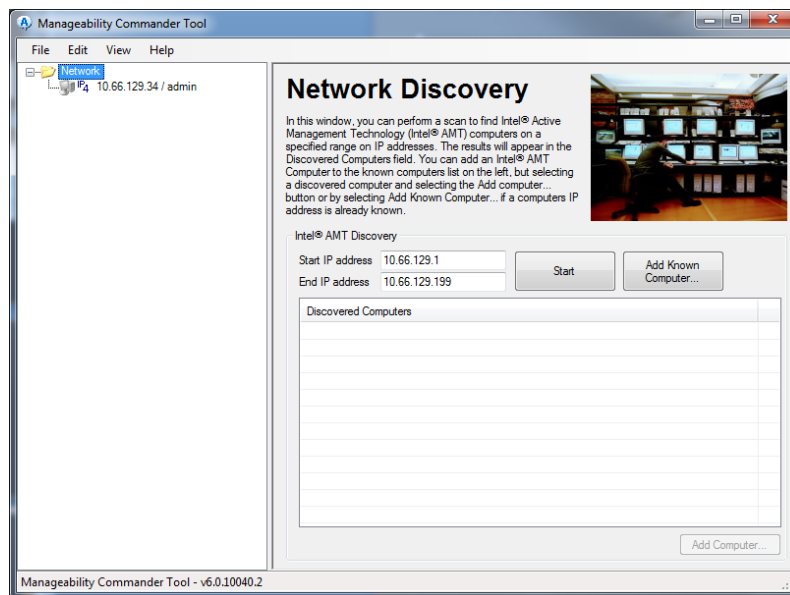
- Using web access, you can check machine status, event log, reboot it if necessary, change network settings and create and manage Intel AMT users (even if the system is powered off but still connected to a power source)

Intel Manageability Commander Tool

APPLIES TO ALL TS200v MODELS

- **Manageability Commander Tool from Intel is a great way to monitor all your machines remotely (via an internet connection) or running locally on the server via a directly connected KVM. Download from:**

<http://software.intel.com/en-us/articles/download-the-latest-version-of-manageability-developer-tool-kit/>



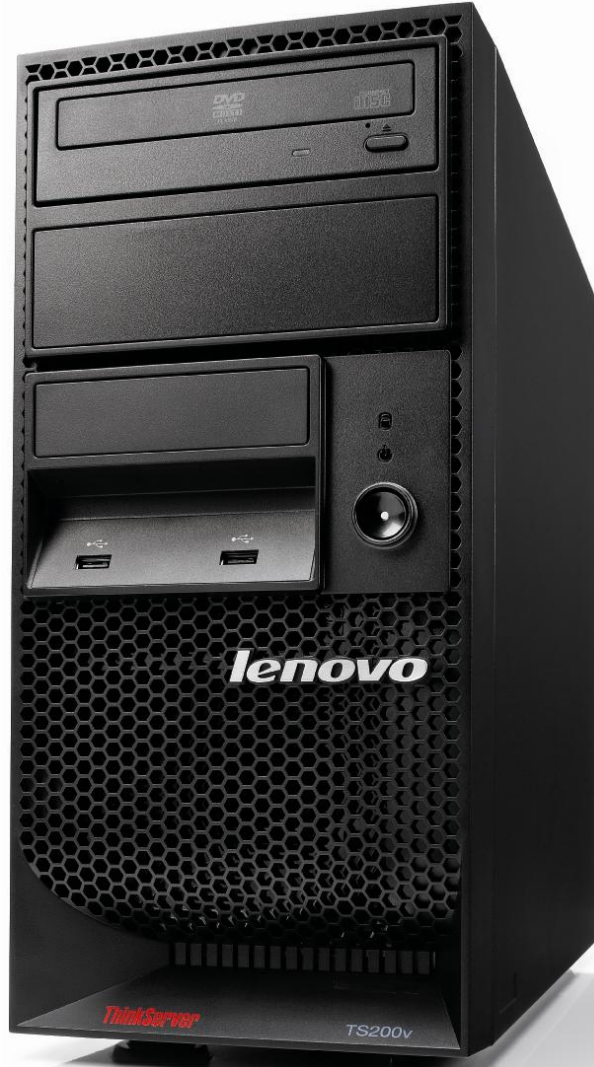
- **You can quickly change settings of your AMT enabled TS200v, connect remotely to BIOS, set network policies, check event log, create audit policies, enable/disable AMT features (opt-in, TLS security, Remote control, etc)**

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For the first time, full “always-on” systems management as standard in an entry level server:

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ThinkServer TS200v

“Lenovo’s new ThinkServer TS200v sets the stage for dramatic cost savings, improved response time and new services.”



“Lenovo has created a truly ground-breaking server with the introduction of the TS200v. This kind of innovation around Intel AMT is a foundation for us to build the next generation of remote manageability for MSPs and their customers.”. ISV



“For me, this answers a question that I have received for the last 5 years. "When is AMT going to hit servers?" Well the time is now, the time is today.”



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