



Technology
Brief
Intel® Active Management
Technology

Discover, heal, and protect your networked computing assets.

Intel® Active Management Technology (Intel® AMT) can improve IT efficiency using built-in platform capabilities and popular third-party management and security applications.

Manageability built in

As a part of Intel® vPro™ technology, Intel AMT enables secure, remote management of systems through unique built-in capabilities, including:

- Out-Of-Band (OOB) management provides a direct connection, known as the OOB channel, to the Intel AMT subsystem through the operating system's network connection or via its TCP/IP firmware stack.
- Non-volatile memory stores hardware and software information, so IT staff can discover assets even when end-user systems are powered off, using the OOB channel.
- System Defense featuring inbound and outbound filters, combined with presence detection of critical software agents, protects against malware attacks.

Intel AMT is a hardware- and firmware-based solution connected to the system's auxiliary power plane, providing IT administrators with "any platform state" access.¹ Using Intel AMT to remotely discover, heal, and protect computing assets 24x7, IT staff can respond far more efficiently, while reducing operating costs.

Now there's a solution for your "unsolvable" IT challenges

Based on interviews and surveys of IT organizations worldwide, Intel has identified the top three IT needs today: faster, more accurate asset management; reduced downtime with fewer desktside maintenance and repair visits; and improved malware prevention and response. Figure 1 shows the platform architectural enhancements that Intel AMT provides to address each of these needs.

Remotely discover computing assets in any power state

You depend on accurate hardware and software inventories to document regulatory compliance and manage software licenses. But software-only tools for remote inventory miss platforms that are powered down, and they rely on software agents, which can be easily disabled or removed. As a result, time-consuming manual inventories are often required to ensure accuracy. Figure 2 shows how Intel AMT works with your third-party management console to perform an accurate inventory—even when end-user systems are powered down.

Remotely heal computing assets

In the past, an inoperable OS, a corrupted application, or a hard drive failure required one or more desktside visits to diagnose and fix the problem. Figure 3 shows how the proactive alerting and remote-recovery capabilities of Intel AMT can help you diagnose and potentially fix failed PCs remotely. Notice how, in Step 2, IT can recover control of an unbootable system by remotely rebooting the platform to an OS on a network drive and starting a console redirection session.

Feature	Benefit
Out-of-band (OOB) system access	Remote PC management regardless of system power or OS state
Remote troubleshooting and recovery	Increased IT efficiency with fewer desktside visits
Proactive alerting	Faster problem detection and less downtime
Remote HW and SW asset tracking	Increased speed and accuracy with reduced accounting costs, compared to manual tracking
Third-party nonvolatile storage	Safeguard and restore data without relying on local software agents
Proactive blocking and reactive containment of network threats	Keep viruses and worms from infecting end-user PCs and spreading, increasing network uptime

Figure 1. Intel® AMT offers robust features for asset management, remote management and security.

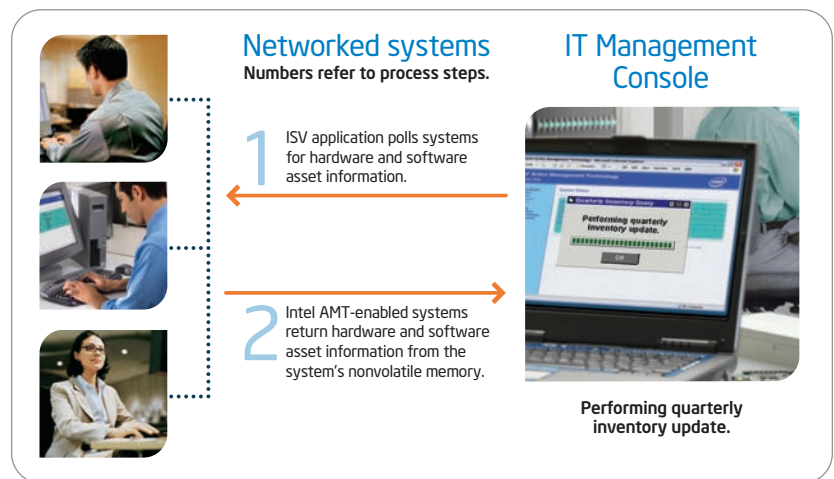


Figure 2. Discovering computing assets.

Intel AMT's OOB communications allow it to poll systems even if they are powered down to obtain hardware or software inventory information from each system's nonvolatile memory.

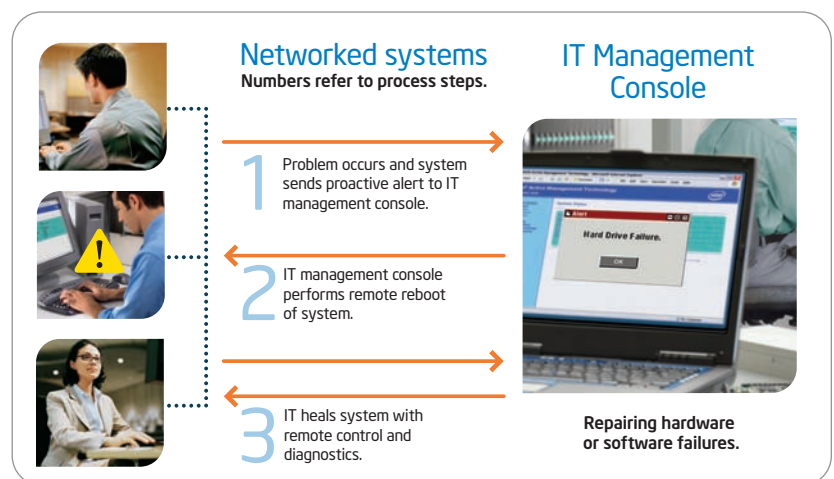


Figure 3. Healing computing assets.

Proactive alerting notifies IT of a system problem, even when the system is down, allowing IT to respond by remotely rebooting the system to a diagnostic platform for problem resolution by either down-the-wire repair in the case of software problems or by dispatching a technician with the appropriate replacement part in the case of hardware problems.

A software problem can be healed remotely. If Intel AMT diagnoses a hardware problem, such as a hard drive failure, it can access the inventory list stored in nonvolatile memory to determine the drive's make and model. IT can then issue a work order informing the field technician of exactly which hard drive to take with them the first time—eliminating a second desktside visit and speeding the repair.

Protect computing assets

Security threats that spread can inflict significant damage and downtime on your network. Figure 4 shows how Intel AMT can help keep threats out of the network and prevent them from propagating if they do get in.

Intel AMT can (1) proactively block incoming threats, (2) reactively prevent infected PCs from spreading threats to other PCs on the network, (3) alert IT staff when personal firewall, anti-virus software or other software-based security agents are disabled, and (4) automatically keep software up to date. And because Intel AMT is hardware- and firmware-based, it cannot be removed—either accidentally or intentionally by end users.

Major ISVs support Intel® AMT

Recognizing the advantages Intel AMT brings to platform management, major independent software vendors (ISVs) around the world are adding Intel AMT support to their products—providing leading-edge solutions for asset management, remote diagnosis and repair, and network security. Intel AMT integration enables IT efficiencies and cost savings not possible with previous-generation solutions. Figure 5 lists current ISVs and their applications that support Intel AMT.

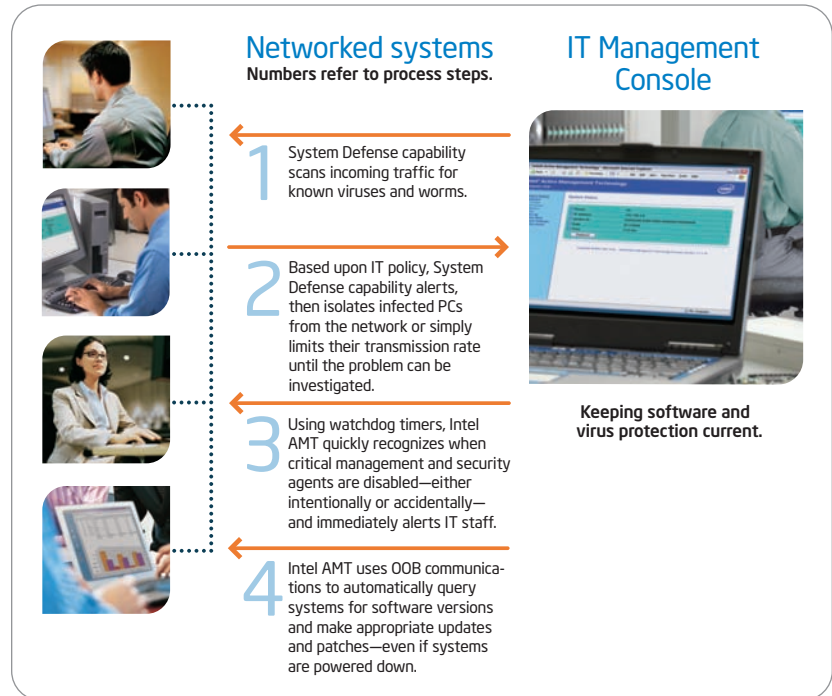
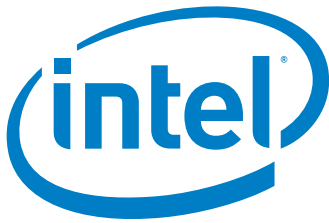


Figure 4. Protecting computing assets.

Intel AMT helps protect networks by proactively blocking and reactively containing certain network threats, ensuring software agents are present, and keeping installed software versions up to date.

ISV	Application
Altiris*	Altiris* Quarantine Solution Altiris* Real Time System Manager Altiris* Network Discovery
Cisco Systems	Cisco Network Admission Control (NAC)* Cisco Security Agent (CSA)*
CA*	CA Unicenter* solutions
HP	OpenView Client Configuration Manager* OpenView Management Suite for Desktops*
LANDesk*	LANDesk* Management Suite LANDesk* Server Manager LANDesk* System Manager LANDesk* Security Suite
Microsoft*	Microsoft* System Management Server 2003 (SMS)
Star SoftComm	StarNet*

Figure 5. Leading ISVs are adding support for Intel AMT to their products.



Intel AMT ROI Estimator

The Intel AMT Return on Investment (ROI) Estimator is a powerful, interactive tool that can help you approximate your IT support costs and savings when purchasing future systems with Intel AMT. To download the Intel AMT ROI Estimator, go to www.intel.com/go/iamt. The ROI Estimator can be found in the right-hand column of the page.

PCs with Intel® vPro™ technology and Intel® Centrino® Duo mobile technology feature Intel AMT

Intel AMT is available on select PCs with Intel vPro technology from leading OEMs. For more information, visit www.intel.com/vpro.

Additionally, Intel AMT is available on select laptops featuring Intel® Centrino® Duo mobile technology. For more information, visit www.intel.com/centrino.

¹ PCs with Intel® vPro™ technology include Intel® Active Management Technology (Intel® AMT). Intel AMT requires the computer to have an Intel AMT-enabled chipset, network hardware and software, connection with a power source, and a network connection.

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