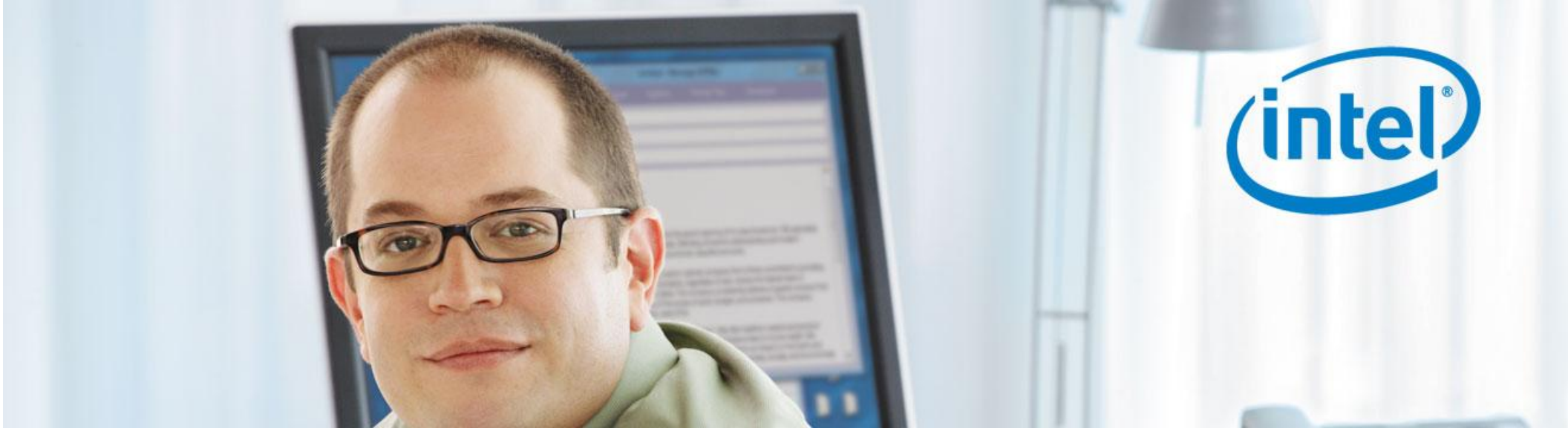

Capabilities Brief

Intel® Xeon® Processor E3-1200 Product Family
Intel® Active Management Technology

Simplified, Affordable Server Manageability for Small Businesses

The Intel® Xeon® processor E3-1200 product family offers Intel® Active Management Technology[1] designed to address key small business concerns such as cost constraints, security, having little or no IT staff, and the need to manage servers in remote locations.

Your small business needs to ensure high IT efficiency with a low cost, simple, smoothly operating computer infrastructure. Secure management and repair of servers is a vital capability of that infrastructure, made more robust than ever with Intel® Active Management Technology (Intel® AMT), and built into the Intel® Xeon® processor E3-1200 product family.

Challenge:
In an increasingly competitive business environment, your small business can't afford downtime from unreliable computers. You need hardware you can depend on and grow with, while meeting cost constraints and even managing servers in remote locations with little or no IT staff.

Solution:
The Intel® Xeon® processor E3-1200 product family supports innovative usage models with Intel® Active Management Technology. Remote troubleshooting and recovery delivers secure, remote management and repair of platforms, regardless of system power or operating system state. Proactive alerting automatically detects and resolves changes to security software. Remote software and patch updates maintain software version compliance with secure deployment of patches.

Customer Benefits:
Reduce cost and complexity with built-in security and manageability, while increasing IT efficiency with remote diagnosis and repair, whether you support your infrastructure directly or work with a managed service provider.

Advanced Manageability of Entry-Level Servers

Intel AMT, a component of Intel® vPro™ Technology, provides the ability to discover, power on, and manage computers, even if they are powered down or the operating system is damaged or missing. With the introduction of the Intel Xeon processor E3-1200 product family, Intel AMT is now available for servers.[1] These new platforms usher in a new era of server manageability for your small business; whether you handle IT support on your own or use a managed service provider (MSP), Intel AMT helps you address key business concerns:

- **Overcome cost constraints:** Intel AMT reduces cost and complexity with built-in security and manageability that can streamline operations and help your business run smoothly while meeting strict budget requirements.
- **Manage computers with limited or no IT staff:** Intel AMT increases IT efficiency with diagnostics and repair capabilities that allow you to complete server-management tasks with lower cost and time requirements.
- **Handle servers in remote locations effectively:** Intel AMT enables your in-house IT or external service provider to securely manage and repair remote servers without costly site visits that can also increase downtime.

Using the capabilities of Intel AMT, servers based on the Intel Xeon processor E3-1200 product family deliver simplified and affordable manageability solutions. They also provide the flexibility for you to deploy them using existing management methods today, with the option of expanding to use the full functionality of Intel AMT in the future. Moreover, these servers are available at a price point similar to that of a conventional desktop machine, providing a clear incentive to use a server to support the core applications that help your business thrive.

REMOTE TROUBLESHOOTING AND RECOVERY

Key Benefits:

- Control and interact with a remote server as if it were right in the room
- Perform troubleshooting and recovery operations regardless of OS and power state

How It Works:

1. Server platform is unable to boot
2. Management console establishes secure connection to broken server, even through a firewall
3. Keyboard Video Mouse Redirect (KVMr) functionality[2] controls server
4. Management console diagnoses problem and repairs issue

PROACTIVE ALERTING WITH AGENT PRESENCE CHECKING

Key Benefits:

- Detect and resolve software changes automatically
- Ensure that critical security software agents are running

How It Works:

1. Intel® AMT configured to check for critical agent software (e.g., security application)
2. If agent fails or is removed, server alerts management console
3. Management console repairs non-working software agent

REMOTE SOFTWARE AND PATCH UPDATES

Key Benefits:

- Deploy patches remotely and securely, without service interruption
- Conduct remote patch maintenance regardless of OS and power state

How It Works:

1. Management console alerted that server software agent is missing or patch is required
2. Management console connects to server
3. If powered down, management console issues unique encrypted power-on command
4. Management console delivers software patch and reboots the server if necessary

The Ideal Entry-Level Server for Your Small Business

Servers based on the Intel Xeon processor E3-1200 product family offer headroom for growth tomorrow while meeting your key computing challenges today. In addition to the manageability advances described above, these platforms deliver extraordinary advantages in terms of performance, 24x7 dependability, security, and investment protection:

- **Increase business responsiveness** with up to 30 percent better performance over prior generation servers[3] and up to 5.9x better performance than a four-year old desktop.[4]
- **Protect your business** with Intel® Advanced Encryption Standard New Instructions for 58% faster encryption,[5] Intel® Trusted Execution Technology for secure server OS upon startup, and Intel® Rapid Storage Technology for minimizing data loss in the event of a hard drive failure.
- **Make a smarter investment** with Error Correcting Code (ECC) memory for 24x7 dependability and data protection, server-class OS validation for improved reliability and interoperability, and 6.5x energy efficiency of a four-year older desktop[4] for lower operating costs.

Entry-level servers are available at system prices that are comparable to desktops, making the choice clear to upgrade to a server for the core computer functionality that your business needs. Deploying servers based on the Intel Xeon processor E3-1200 product family lets you run business-class applications faster, enables your employees to be more productive, and gives you reserve computing power when you need it.

Host-based Setup and Configuration: NEW in Intel® Active Management Technology 7.0

The Intel® Xeon® processor E3-1200 product family introduces Intel AMT 7.0, which builds on the previous generation with refinements and additions that make the technology even more valuable. Host-based setup and configuration dramatically simplifies the task of configuring the target machine, using a local application instead of a central console. You can handle configuration over wireless or VPN, or even when the system is not physically connected.

Take the Next Step

Regardless of what segment your small business is in, entry-level servers based on the Intel Xeon processor E3-1200 product family are a smart choice for your computing needs. These servers can help address the key day-to-day challenges you face, including cost constraints, limited or no IT staff, and the need to support servers in remote locations. Deploying an entry-level server positions your business to get more done at lower cost, preparing for even greater success.

For more information about **Intel Active Management Technology**, see
www.intel.com/software/manageability

For more information about the **Intel Xeon processor E3-1200 product family**, see
www.intel.com/products/server/processor/xeonE3

[1] The term "Intel Active Management Technology (Intel AMT)," as used here, refers to the set of hardware features that underlie out-of-band manageability on enabled Intel® platforms. The branding term "Intel vPro technology" refers to a broader set of client computer features that include chipset and processor support for being managed using Intel AMT. The corresponding sets of features to support manageability in the Intel® Xeon® processor E3-1200 product family are not branded as Intel vPro technology, so they are referred to here simply as "Intel AMT." Intel AMT requires the computer system to have an Intel AMT-enabled chipset, network hardware, and software, as well as connection with a power source and a corporate network connection. Setup requires configuration by the purchaser and may require scripting with the management console or further integration into existing security frameworks to enable certain functionality. It may also require modifications of implementation of new business processes. For more information, visit http://www.intel.com/technology/platform-technology/intel-amt.

[2] Keyboard Video Mouse Redirect (KVMr) functionality requires a platform with integrated graphics.

[3] 30% better performance on Intel® Xeon® Processor E3-1280 compared to Intel® Xeon® Processor X3480 on SPECjvm*2008 based on Intel performance estimates as of December 2010.

[4] Averaged normalized performance and performance/watt of three SMB workloads (e-mail, database, and web) on a 1S server based on Intel® Xeon® processor E3-1240 is up to 5.9x better and up to 6.5x more energy-efficient than a desktop-based server using Intel® Core™ 2 Duo Processor E6400 based on the results of a study conducted by Principled Technologies.

[5] 58% faster disk encryption was measured on Intel® Xeon Processor E3-1280 compared to Intel® Xeon® Processor X3480 in an Intel internal performance study in January 2011.

[6] Costs and return on investment have been estimated based on internal Intel analysis and are provided for information purposes only.