enabling
remote PC management

Enhancing IT efficiency and improving responsiveness with Atos and Intel® vPro™ technology

IT professionals face significant challenges in managing client systems—especially when their organizations must support a geographically dispersed fleet of devices from a centralized location while serving an increasingly mobile workforce. Administrators need ways to inventory, provision, patch, diagnose and repair PCs remotely, even if those systems are turned off or the operating system (OS) is not running.

In many cases, organizations spend too much time and money on deskside visits, and users can experience significant interruptions when they must help with troubleshooting sessions or verify hardware assets. These interruptions not only reduce employee productivity, they can also weaken security. Exposure to a new threat or vulnerability might be prolonged while service technicians hurry to the deskside to power up machines and install patches before the network becomes infected.

In today's enterprise environment, there is a critical need for tools that can help overcome these challenges by improving remote services for managing and securing PCs. And with users becoming more mobile all the time, the task of managing client systems is only likely to grow.

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Minimize PC downtime

"The Towers Watson team recognized that Intel® vPro™ technology could help meet our shared expectations for service and costs."

Nathan Christensen,
Global Delivery Director,
Atos

Delivering a new level of management service with Intel® vPro™ technology

Intel® vPro™ technology, integrated into 4th generation Intel® Core™ processors, delivers powerful, hardware-based capabilities that improve remote management of desktop and laptop computers. These capabilities help improve remote discovery, inventory, problem resolution, maintenance and security when managing a fleet of desktop and laptop systems. With Intel vPro technology activated, administrators can perform and automate management and security tasks even if a PC is powered off, its OS is inoperative or management agents are missing.

As a service provider, Atos uses Intel vPro technology features to reduce the number of deskside visits traditionally required to manage and maintain systems at customer sites, minimizing business interruptions for its customers while lowering the customer's total cost of ownership. Several enterprise-wide customer implementations of Intel vPro technology have validated these capabilities. At global consulting firm Towers Watson, for example, the Atos team put these capabilities into action and was successful in completing a wide range of tasks.

Powerful, hardware-based capabilities

Intel vPro technology includes powerful capabilities built into the system hardware and firmware that allow administrators to access PCs regardless of the power state or health of the operating system:

▸ **Secure, remote communication running "under" the OS:** The security-protected remote communication channel uses the TCP/IP firmware stack, not the software stack in the OS. As long as the PC is connected to a power source and plugged into the network, an authorized technician can use management software to communicate with the PC.

▸ **Always-available alerting:** PCs can send alerts and simple network management protocol (SNMP) traps to the management console any time. This gives administrators visibility into fan speeds, temperatures, case intrusions, hardware failures, OS lockups and other critical events as they occur.

▸ **Access to information:** IT technicians can remotely access persistent event logs, persistent hardware asset information and pre-boot BIOS settings to respond to service requests and rapidly resolve PC problems.

▸ **Remote power-up:** Technicians can power up, power down or reset PCs from the management console.

▸ **Integrated drive electronics redirect (IDE-R):** Authorized technicians can redirect the boot device for a problem PC to a clean image at the help desk or an image on another remote drive, for rapid resolution of software problems.

▸ **Console redirection and control:** Through built-in serial-over-LAN (SOL) capabilities, IT technicians can guide the PC through a troubleshooting session without user intervention.

Remotely updating PCs even if the power is off

With Intel vPro technology, administrators can avoid manual BIOS/firmware updates and deskside patching, protecting more systems in less time than before. An Atos evaluation showed that a technician can remotely power up and install a patch to 10 PCs in less than 20 minutes, compared with an hour per PC for manual processes. Extrapolating from this data, Atos estimates that administrators could patch an environment with 5,000 PCs in approximately 3.5 hours, with 98 percent patch saturation.

"By taking advantage of Intel® Core™ vPro™ technology, Atos is able to improve service efficiency, lower costs and increase user uptime, all of which benefits Atos and the customers they serve. Using Intel Core vPro technology as part of its Workplace Services offering, Atos is able to deliver value-added services that enterprise customers need and want."

Yasser Rasheed,
CTO and Director of Architecture Business, Client Platform Division,
Intel Corporation

Atos experiences with device discovery, inventory and provisioning

Task	Atos estimated improvement with Intel® vPro™ technology
Discover and provision	• Reduce time to discover and provision new PCs by 35 percent
Asset inventory	• Reduce manual inventories by approximately 95 percent
BIOS/firmware update	• Eliminate manual BIOS updates • Reduce time to update firmware by 85 percent

Reducing the need for user intervention

The remote power-up capability gives administrators a new level of control over PCs. Administrators can run diagnostics, securely wipe data, reboot systems and conduct other tasks remotely. For example, remote power-up can be used in conjunction with third-party security and management solutions to power down machines during emergencies caused by malicious attacks. By reducing the number of visits needed to respond to events and resolve hardware-related issues, remote power-up helps minimize downtime and reduce costs.

Improving discovery and inventory processes

There is a significant financial difference between a system that is truly lost and one that is "missing" only because it has been reallocated but not tracked. According to Atos evaluations, as many as 20 percent of systems that are reported missing still exist within the infrastructure. If they were tracked more accurately, these PCs could be reallocated to improve reporting, revenues and procurement. Systems with Intel vPro technology activated can be configured to respond to scripted inquiries even when powered down. Script generation may be automated through third-party solutions, or can be developed in-house.

Remotely provisioning new PCs

With Intel vPro technology, Atos can also avoid the need for manual on-site provisioning. Because PCs with Intel vPro technology activated can be remotely inventoried at any time, a technician can identify the system's configuration, including BIOS settings and firmware version information. The technician can remotely power up the machine, push the appropriate agent to the new PC and begin a new build—all without making a physical visit to the system.

Taking a multitiered approach to implementation†

Atos offers a tiered approach to implementation of Intel vPro technology to help deliver immediate results, cost-effectively, while providing flexibility and scalability for the future:

▸ **Tier 1:** Implement a single setup and configuration software server in a database-less model, as well as remote-control software, to access key Intel vPro technology capabilities ranging from remote drive mounting to KVM Remote Control.

▸ **Tier 2:** Integrate with Microsoft Active Directory* and Microsoft System Center Configuration Manager* using a dedicated back-end database and internal public key infrastructure (PKI) for transport layer security (TLS) communication.

▸ **Tier 3:** Deploy a management presence server to allow beyond-the-firewall usage, such as cloud-accessible support.

▸ **Tier 4:** Integrate with third-party security and management solutions.

Enhancing the customer experience

Atos offers comprehensive solutions designed to increase agility, enhance the user experience and support the most demanding business needs. Atos solutions based on industry-leading Intel technology can help move customers forward strategically during an era of rapid transformation. Because of its relationship with Intel, Atos has access to a reliable road map of current and future technology innovation, which Atos integrates into the products and solutions developed for its customers.

Summary

The ability of authorized Atos technicians to remotely access the Intel vPro hardware-based communication channel below the OS—even when the PC is powered off or the OS is not available—has a profound impact in many aspects of management and security.

"By activating remote management capabilities through Intel® vPro™ technology, Atos reduces the time it takes to respond to issues that were previously resolved by dispatching a technician to the employee's desk. This technology minimizes PC downtime, reduces cost of providing services, maximizes employee productivity and keeps our clients happy. This is a winning scenario for everyone."

John Dabek,
CTO,
Towers Watson

Managing PCs with Intel vPro processor technology allows Atos to eliminate many traditional deskside visits, shorten repair and remediation times, and improve efficiencies for many tasks. As a service provider, Atos can reduce interruptions to daily business, improve user uptime and provide even better service to support enterprise clients while lowering customer TCO.

Atos is looking forward to integrating the capabilities of Intel vPro processor technology into current processes for customers to streamline and automate more processes, such as:

Discovery, inventory and provisioning
▸ Maintenance and provisioning of new PCs
▸ Device discovery
▸ Asset management
▸ Hardware inventories

Improving responsiveness

Diagnostics and problem resolution
- Reduced deskside visits
- Remote OS problem resolution
- Remote diagnostics of hardware issues

Patching and updating
- Patch management
- Security updates
- OS migrations
- Selective updates

In turn, this will help Atos offer a new level of service to customers, further reducing interruptions to business, and providing even better services to enterprise clients through remote operations performed by a centralized, expert team.

References

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About Atos

Atos SE (Societas europaea) is an international information technology services company with 2012 annual revenue of EUR 8.8 billion and 77,100 employees in 52 countries. Serving a global client base, it delivers IT services in three domains, Consulting & Technology Services, Systems Integration and Managed Services & BPO, and transactional services through Worldline*. With its deep technology expertise and industry knowledge, it works with clients across the following market sectors: Manufacturing, Retail & Services; Public sector, Healthcare & Transports; Financial Services; Telco, Media & Utilities. Atos is focused on business technology that powers progress and helps organizations to create their firm of the future. It is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and is quoted on the NYSE Euronext Paris market. Atos operates under the brands Atos, Atos Consulting & Technology Services*, Worldline and Atos Worldgrid*.

About Intel

Intel (NASDAQ: INTC) is a world leader in computing innovation. The company designs and builds the essential technologies that serve as the foundation for the world's computing devices. For more information, visit: intel.com

> "Through the use of Intel® Core™ vPro™ technology and a centralized expert team, Atos has been able to achieve a 99 percent rate of technician dispatch avoidance at remote offices that did not have dedicated, on-site IT staff, thereby eliminating most of the costly and time-consuming technician dispatch costs."
>
> John J. Minnick,
> Director, Global Head of Strategic Technology Partners (STeP) Team,
> Innovation, Portfolio, and Architecture, Atos

For more information visit:
www.na.atos.net