PKO Bank Polski recently refreshed its full client infrastructure to HP PCs and laptops running Intel® Core™ i5 or i7 vPro™ processors. The bank was eager to harness the benefits of Intel® Active Management Technology (Intel® AMT) to streamline the remote management of its client infrastructure. Since rolling out the new platform, PKO Bank Polski has seen an increase in remote diagnostics and a dramatic reduction in downtime, improving both employee productivity and customer service.

**Challenges**
- **Refreshing hardware.** PKO Bank Polski wanted to upgrade its aging client infrastructure with new hardware, as it also migrated from Microsoft Windows* XP to Windows 7
- **Improved management.** It also sought new, innovative solutions that would enable it to manage its extensive client computing infrastructure efficiently and comprehensively

**Solutions**
- **Out with the old.** The bank replaced its aging machines with HP desktops and laptops powered by Intel® Core i5 and i7 vPro processors running Microsoft Windows 7
- **Remote diagnostics.** Intel AMT is enabling IT administrators to remotely discover, remediate and recover systems that are out of band or that have an operating system (OS) failure

**Impact**
- **Greater efficiency.** According to the bank’s own findings, the remote management features of the Intel vPro platform have significantly improved overall management of the bank’s client infrastructure, reducing deskside visits by around 20 percent
- **Better customer service.** Downtime has been reduced, improving both employee productivity and customer service.
- **Reduced energy costs.** The bank estimates that remote power management will enable it to save up to PLN 1,276,182 (USD 400,000) per year thanks to reduced energy consumption

**Poland’s largest bank**
PKO Bank Polski is Poland’s largest bank. It provides services to individual and business clients. Its core business is retail banking. It has a headcount of 24,500 and has a full-year net profit of over PLN three billion (more than USD one billion). Its assets are worth more than PLN 240 billion (around USD 72 billion). The bank continuously develops its business and market share, for example through the acquisition of Nordea Bank.

**Extensive infrastructure**
In Poland, the bank has a large, sprawling client environment spread across its head office in Warsaw and 16 regional and 1,200 branch offices throughout the rest of the country. It wanted to upgrade its aging client infrastructure with new hardware and also migrate from Microsoft Windows XP to Microsoft Windows 7. It also sought innovative solutions that would enable it to manage its extensive client computing infrastructure efficiently and comprehensively.

Previously, the bank had used Microsoft solutions, including Microsoft System Management Server* (SMS)* 2.0 and Microsoft System Center Configuration Manager* (SCCM)* 2012 R2, to manage its client infrastructure.

Katarzyna Tanska, director, User Support Department at PKO Bank Polski, explains the limitations of this approach: “The Microsoft solutions were useful to a certain extent, but without the right hardware we weren’t able to utilize the full potential of their out-of-band management. We were eager to find an alternative solution that would enable us to remotely manage clients regardless of their power state and irrespective of an operating system being installed and functional.”

**Hardware-based manageability**
A review of the available platforms and their capabilities led PKO Bank Polski to choose the Intel vPro platform, which embeds hardware-based security and manageability into PCs with Intel Core vPro processors.

"Remote diagnostics decrease the demand for on-site services and significantly reduce the time needed to restore a workstation to its full functionality. Naturally, reduced downtime makes it possible to provide an even higher standard of service to the bank’s customers and to better attain our business goals.”

Katarzyna Tanska, Director, User Support Department, PKO Bank Polski
Lessons Learned
Rolling out a completely new client infrastructure comprising desktops and laptops powered by Intel® Core™ i5 and i7 vPro™ processors was surprisingly easy. PKO Bank Polski approached its refresh by swapping out the old machines first. Configuration of the Intel vPro platform was also quick and simple. The technical aspect posed very few issues so the bank was able to focus on adapting the new technology to its security policy. In some instances it was even able to boost its security by adapting its procedures to the features of the Intel vPro platform.

Find the solution that’s right for your organization. Visit success stories from your peers, learn more about vPro for business and check out the IT Center, Intel’s resource for the IT Industry.

Using integrated platform capabilities and popular third-party management and security applications, Intel AMT, a feature of Intel Core vPro processors, allows IT or managed service providers to better discover, repair, and protect their networked computing assets. Intel AMT was a key factor in the bank’s decision to refresh its client infrastructure with Intel® processor-based desktops and laptops. Tanska explains: “The ability to integrate Intel’s powerful interface for hardware-level remote PC management, together with our existing Microsoft SCCM 2012 R2 software, was extremely appealing. Furthermore, it was relatively easy to set up and configure the Intel platform. During the implementation phase we spent the majority of our time adapting the new technology to our security policy and adjusting our procedures to take advantage of it.”

Top features
The client refresh in the branches took just six months, replacing the bank’s oldest machines first with HP desktops and laptops powered by Intel Core i5 and i7 vPro processors. The bank now runs a standard Microsoft Windows 7 64-bit platform, running Microsoft Office* 2010, Microsoft Internet Explorer* (IE*) 11, and both Web-based and installed business applications.

“On the management side, the Intel Management Engine (Intel® ME) works seamlessly with Intel AMT to provide an end-to-end, easy-to-use solution,” says Tanska. “The Intel ME is a great tool for IT administrators to check that the Intel ME subsystem is operating properly.

It is important that this subsystem is functioning correctly to get the most performance and capability from the PC. The Intel ME performs various tasks while the system is in sleep mode, during the boot process, and when the system is running. In any system boot or performance issue, it gives us a good sense of whether the Intel ME subsystem is the trouble spot.

“Intel AMT allows us to remotely discover, re-mediate and recover systems that are out of band or that have an OS failure,” Tanska continued. “The serial over LAN (SOL) driver enables the remote display of a managed client’s user interface through the management console and emulates serial communication over a standard network. Meanwhile, KVM Remote Control allows IT administrators to view PC graphical user interfaces (GUI) remotely, including onscreen error messages. This allows us to repair systems directly rather than talking users through a diagnostic process over the phone, which can be particularly difficult. These are very user-friendly, highly intuitive capabilities that improve the performance and efficiency of managing our client infrastructure.”

Efficient management
The remote management features of the Intel vPro platform have significantly improved overall management of the bank’s client infrastructure. The IT department can deliver more effective IT support more efficiently. Downtime has been reduced, improving overall employee productivity and customer service.

“Our system is now more responsive and runs much more efficiently and smoothly,” says Tanska. “The key benefit is the ability to perform remote diagnostics and use hardware-level access. This decreases the demand for on-site services and significantly reduces the time needed to restore a workstation to its full functionality. Naturally, reduced downtime makes it possible to provide an even higher standard of service to the bank’s customers and to better attain our business goals.

“Following the implementation we expect to see significant cost savings thanks to the remote power management capabilities of Intel vPro technology. We are now able to turn off machines that would have previously been left switched on after working hours. We estimate that this could save us up to PLN 1,276,182 (USD 400,000) per year thanks to reduced energy consumption. In addition, preliminary estimates indicate that the ability to remotely resolve problems using Intel KVM will reduce the number of deskside visits by around 20 percent.

“The Intel vPro platform is now part of our standard hardware setup,” concludes Tanska. “This means that we will be watching the development of this technology with interest. Whether additional functionality is activated depends mainly on our needs and security policy. At the moment, we are very satisfied with the choices we have made and will be closely watching developments in Intel’s roadmap.”

Lessons Learned
Rolling out a completely new client infrastructure comprising desktops and laptops powered by Intel® Core™ i5 and i7 vPro™ processors was surprisingly easy. PKO Bank Polski approached its refresh by swapping out the old machines first. Configuration of the Intel vPro platform was also quick and simple. The technical aspect posed very few issues so the bank was able to focus on adapting the new technology to its security policy. In some instances it was even able to boost its security by adapting its procedures to the features of the Intel vPro platform.

Find the solution that’s right for your organization. Visit success stories from your peers, learn more about vPro for business and check out the IT Center, Intel’s resource for the IT Industry.

This document and the information given are for the convenience of Intel's customer base and are provided “AS IS WITH NO WARRANTIES WHATSOEVER, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS. Receipt or possession of this document does not grant any license to any of the intellectual property described, displayed, or contained herein. Intel® products are not intended for use in medical, lifesaving, life-sustaining, critical control, or safety systems, or in nuclear facility applications. Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more information go to http://www.intel.com/performance.

Intel does not control or audit the design or implementation of third party benchmark data or Web sites referenced in this document. Intel encourages all of its customers to visit the referenced Websites or others where similar performance benchmark data are reported and confirm whether the referenced benchmark data are accurate and reflect performance of systems available for purchase.

Intel® AMT requires activation and a system with a corporate network connection, an Intel® AMT-enabled chipset, network hardware, and software. For notebooks, Intel AMT may be unavailable or limited over a host OS-based VPN, when connecting wirelessly, on battery power, sleeping, hibernating, or powered off. Results dependent upon hardware, setup, and configuration. For more information, visit www.intel.com/technology/vpro/index.htm

Intel® vPro Technology is sophisticated and requires setup and activation. Availability of features and results will depend upon the setup and configuration of your hardware, software, and IT environment. To learn more, visit http://www.intel.com/technology/vpro.

KVM Remote Control (Keyboard, Video, Mouse) is only available with the Intel® Xeon® processor family, Intel® Core™ i5 vPro™ processor, and Intel® Core™ i7 vPro™ processor running activated and configured Intel® Active Management Technology with integrated graphics. Discrete graphics are not supported.

Copyright © 2014, Intel Corporation. All rights reserved. Intel Inside, the Intel Inside logo, Look Inside, the Look Inside logo, and Core i5 vPro are trademarks of Intel Corporation in the U.S. and other countries.

*Other names and brands may be claimed as the property of others.