



Build a Remote Maintenance Platform to Achieve Efficient Deployment of Windows 7

-- China Golden Bridge uses Intel® vPro™ technology and Microsoft SCCM to achieve real-time maintenance of training classrooms

"By using Intel® Core™ 2 processors with vPro technology and Microsoft SCCM, we have successfully upgraded to Windows 7 efficiently and securely. The remote maintenance capability of the company has also been improved, which has created a more stable learning environment for students. From now on, the company is going to gradually upgrade the systems for all classrooms."

Sun Wei, CTO

China Golden Bridge Technology & Service Co., Ltd, Beijing

Success Story

Intel® Core™ 2 Processors with vPro™ Technology
Microsoft System Center Configuration Manager 2007 SP1 (SCCM)
Microsoft Windows 7
Education
Remote Monitoring and Maintenance Platform

Challenge

China Golden Bridge Technology & Service Co., Ltd. in Beijing (hereafter referred to as China Golden Bridge) is one of the forerunners of professional organizations that specialize in providing IT training. After 10 years of development, China Golden Bridge has become a leading IT training and technology service provider in China, and it provides technical trainings, project support and solutions that cover almost the entire spectrum of Microsoft products for government institutions and large enterprises in the world. China Golden Bridge has always been cooperating closely with many international IT manufacturers in marketing, technology and training. The company participated in the release, back-end support, research, evaluation, distribution and technical documentation in Greater China region of Microsoft desktop operating systems from XP, Vista to Windows 7. From 2001 to 2009, China Golden Bridge has been providing trainers and technology service support for TechED, the largest technology conference of Microsoft, and has been one of the most important supporters of the TechED trainer team. Furthermore, as a golden technology service center of Microsoft certification and the solution provider for Microsoft certification trainings, China Golden Bridge provides Microsoft training courses for more than 10 thousand IT professionals every year, and its comprehensive management system and operation & service model have been praised by its customers over the years.

Currently, besides the headquarter, China Golden Bridge has many classrooms in Beijing, where each classroom has about 20 to 40 computers. To satisfy the training needs and improve the manageability and security of these computers, China Golden Bridge has been gradually upgrading the current Windows XP/Vista systems in the classrooms to the latest Windows 7 operating systems of Microsoft.

Although technical staff have employed third party tools to remotely provide secure updates, remote diagnostics and solve problems, on-site maintenance is still needed for computers that are shut down, not responding, or missing client side management software. To minimize the effect on normal classes, maintenance is usually done at night, hence causing high cost on man power.

Therefore, for this upgrade of training classroom operating systems, China Golden Bridge chose three classrooms as pilots where they deployed Intel® Core™ 2 processors with vPro™ technology and used Microsoft System Center



Configuration Manager 2007 SP1 (SCCM), looking forward to efficient remote system upgrades and daily remote maintenance with powerful remote management capability of the two.

Solution

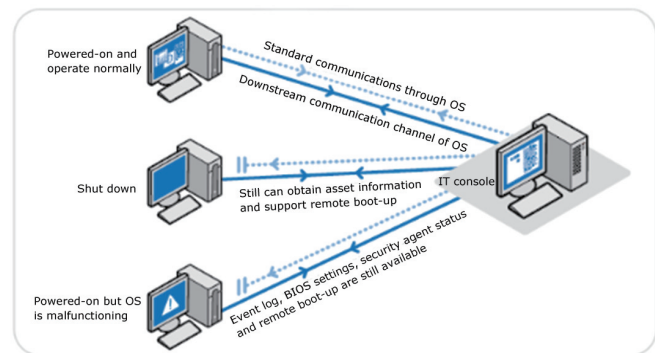
Each of the three test classrooms has 40 computers, and each computer is configured with a 2.4GHz Intel® Core™ 2 dual-core processor and 2GB memory. Technicians boot up computers that are shut down through remote consoles, image the operating system, and use the remote management function of Intel® active management technology to install the operating system at the same time. In the end, all 120 computer images are correctly installed, which achieves efficient deployment of Windows 7 in the entire classroom. The trainers are asked if their classes are affected by the new environment, and they indicate that the systems are running in good condition and that the classes are not affected at all.

Compared with the previous on-site technical support, the entire installation process not only greatly saves man power, but also increases the installation efficiency. Furthermore, since Intel® vPro™ technology allows technicians to remotely boot (or shut down) the systems, the computers can be shut down immediately after the classes are over, and there is no need to leave the computers on and arrange staff to take care of them.

The Intel® Core™ 2 processors with vPro™ technology complements the Windows 7 operating system in the process of deployment, which significantly improves the performance, security and manageability of the training class resources, and greatly saves the man power cost of China Golden Bridge. In particular:

- Windows 7 allows users to use Windows virtual machines, Windows XP mode and Microsoft Enterprise Desktop Virtualization to seamlessly run multiple applications. On the other hand, Intel processors with vPro technology completely satisfy the hardware virtualization need of Windows virtual machines, and bring the best virtualization experience to the users. The combination of both greatly satisfies the needs of trainers for different systems during classes;
- Intel® Core™ 2 processors with vPro™ technology and Windows 7 significantly improve many manageability functions, which allow technicians to remotely wake up, boot up, maintain and manage computers anywhere at any time, regardless if the systems are powered on and regardless of the state of the operating system. This improves maintenance efficiency and reduces IT cost;
- Intel® Core™ 2 processors with vPro™ technology allow computers that have been shut down to boot up remotely, so that users may shut down the computers at night or during weekends when the classes are over, thus saving energy. Technicians can boot up computers remotely from the service center to install key applications or update operating systems;
- Intel® Core™ 2 processors with vPro™ technology support out-of-band warnings. Hence, when systems operate abnormally and when hardware is going to be malfunctioning or the applications hang, IT staff can promptly and automatically receive notifications and use powerful tools provided by Intel

processors with vPro technology (such as remote/redirected boot, console redirection, and access to pre-boot BIOS) to accurately diagnose hardware problems from the service center and minimize the effect of downtime on classes.



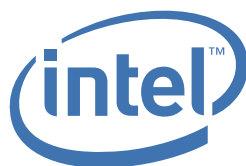
Intel® Core™ 2 processors with vPro™ technology allow remote maintenance of computers in any power state

In this deployment scheme, Microsoft System Center Configuration Manager 2007 SP1 (SCCM) is used. SCCM, when integrated with the Intel® active management technology of Intel® Core™ 2 processors with vPro™ technology, allows remote consoles to diagnose, repair and remotely access to desktop systems, and the SCCM Asset Intelligence technology is fully integrated with the Intel® vPro™ technology, which allows technicians to accurately make an inventory of the assets and prevent loss of company assets.

Benefits

After the deployment of Intel® Core™ 2 processors with vPro™ technology, Microsoft SCCM and Windows 7, China Golden Bridge has achieved lower service cost, better security and more uptime. Without leaving the service center, IT staff can maintain PCs effectively through remote IT consoles and resolve more software and hardware problems remotely. In future, China Golden Bridge will gradually complete the upgrade deployments for other classrooms.

- Reduced maintenance cost: by deploying computers using Intel® Core™ 2 processors with vPro™ technology, China Golden Bridge reduced on-site maintenance workload and hence saved maintenance cost.
- Improved resource utilization: the improvement of maintenance efficiency and reduction of on-site support reduced equipment and resource occupation for maintenance and hence improved utilization of classrooms and equipment.
- Enhanced security: by monitoring traffic rate and identifying suspicious actions, computers with Intel® Core™ 2 processors with vPro™ technology can filter threats and isolate computers to protect training resources from viruses, Trojan Horses and other malicious software, and provide more secure and stable computer environment for the training.
- Reduced asset inventory cost: based on the asset management function of Microsoft SCCM and Intel® vPro™ technology, China Golden Bridge reduced the work for manual inventory and saved large amount of labor force and reduced the "loss rate" of IT assets.



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