CASE STUDY
Intel® Atom® Processor Z2760
Energy
Client Mobility

Saving work and money with Intel® architecture-based tablet PCs

With Intel® Atom® processor-based tablet PCs and touch-enabled applications, Sinopec improves enterprise productivity and work efficiency.

With the widespread development of office automation applications, the demands on associated equipment have also grown. Sinopec urgently needed simpler and more intuitive management tools to meet its ever-increasing IT equipment management demands. In March 2013, Sinopec migrated its IT equipment management system to Intel® architecture and Microsoft Windows® 8 operating system-based tablet PCs. Using tablet PCs for IT equipment management, Sinopec has improved its productivity and work efficiency, meeting its ever-expanding IT equipment and resource management demands.

CHALLENGES

- **Enhance mobile office.** Run the existing IT equipment management system on more portable computing devices with longer standby time.
- **Improve office flexibility.** Enhance counting and checking of IT equipment, particularly the photographing of equipment and scanning of barcodes, which is difficult to achieve with the existing operation platform.
- **Utilize touch control.** Enhance the IT equipment management system with touch control for convenience and visualization of office operation and to improve work efficiency.

SOLUTIONS

- **Intel® Atom® processor.** Deploy Intel Atom processor-based tablets to enhance computing performance with low energy consumption, for higher energy efficiency and extended battery life.
- **Integrate image signal processor (ISP).** Enhance picture quality with Intel Atom processor, which supports up to 8-megapixel high-definition cameras.
- **Deploy tablet PCs based on Intel architecture and Microsoft Windows 8 operating system.** Ensure compatibility with existing Windows software and applications for seamless operation of the IT equipment management system with touch control.

IMPACT

- **Promoted business innovation.** A more efficient way of conducting business results in a more productive work environment.
- **Easier-to-use enterprise applications.** Migrating the IT equipment management system to the touch-control tablet PCs has simplified the input process, making them more intuitive to use and improving the IT staff’s work efficiency.
- **Improved energy efficiency.** Compared with traditional laptops, the Intel Atom processor was designed for more portable and slimmer tablet PCs, with lower power consumption and balanced performance.

Xu Bin
IT Manager, Information Management Department
Sinopec

"Intel® Atom® processor and Microsoft Windows 8 operating system-based tablet PCs meet Sinopec’s demands thanks to their touchscreen operation and easy portability as well as longer standby time. Sinopec has brought touch control to its IT equipment management system, made the mobile office more flexible, and improved users’ efficiency."

Improve work efficiency

As one of China’s largest integrated energy and petrochemical companies, Sinopec uses an IT equipment management system to manage IT equipment and resources such as basic desktop equipment, network, server, and video conferencing equipment and spare parts.

Sinopec’s IT equipment management—including functions such as applications, borrowing, purchasing, approval, updates, maintenance, inventory, and rejection—relies on this system. Sinopec found the keyboard and mouse input method is not the optimal way for its IT staff to use the system, since they roam around the office.
Tablet PCs based on Intel® Atom® processor and Microsoft Windows 8 give Sinopec a superior mobile office experience and help improve work efficiency

Mobile office culture
IT managers often had to carry a laptop around to check the IT equipment. One IT equipment manager said, “On one hand, the regular laptop is quite cumbersome, and our work enthusiasm has been negatively affected. On the other hand, we have to bring the laptop charger with us, because the battery life of a regular laptop is only a few hours.” Sinopec needs computing equipment that is easier to carry and has longer battery life to meet the demands of the company’s mobile workers.

Sinopec’s IT equipment to be scrapped must be photographed for the company’s archive. However, a regular laptop only has a front-facing camera, which is usually on top of the screen, making it inconvenient to take a picture. So, along with a laptop, an IT equipment manager also needed to carry a digital camera. “Sometimes, we also need to take a barcode scanner to scan the barcodes of the equipment,” explained the IT equipment manager. “We have tried several lightweight tablet PCs. However, these computers can only support some functions of the system and fail to be perfectly compatible with our existing digital camera, barcode scanner, and other external devices.”

Reducing technical barriers for non-IT professionals
In Sinopec, the users of this system are not all IT professionals. Some older employees find it difficult to operate a computer as easily and skillfully as younger staff members can. For instance, opening a browser and entering a URL can be a challenge. These users need a simpler, more straightforward way to use the computer.

To help its staff overcome the technology barrier, Sinopec began testing touch-control tablet PCs. It considered the customer experience, software migration, ease of use, compatibility, mobility, and other factors. Tablet PCs based on Intel architecture and the Microsoft Windows 8 operating system ultimately stood out and met Sinopec’s needs.

Moving to tablet with minimal effort
Sinopec technicians tested and completed the migration of the IT management system from ordinary PCs to tablet PCs based on the Intel Atom processor Z2760 and Microsoft Windows 8 operating system in less than two days.

According to Xu Bin, Sinopec IT manager for the Information Management Department, “We only needed to make some adjustments for the interface and display of the system on the new platform, the size of text, and others. After ensuring all of these were addressed, we were able to deploy the system within the enterprise. In such a short period of time, it was almost impossible to migrate the software to the tablet PCs on other platforms.”

Intel and Windows 8 extended the original features of the PC desktop platform, the operating habits, and the manageability feature to the tablet PCs. Xu explained, “Testing showed that the platform based on Intel Atom processor Z2760 provides computing performance that meets our needs. There is almost no difference between the performance of Sinopec’s IT equipment management system on this platform and that of the general PCs. Our previous investment in the system is protected and extended.”

 Superior mobile office experience
Since the Intel Atom processor is designed for tablet and adaptive tablet PCs, it allows manufacturers to produce tablet PCs based on Intel architecture as thin as 8.5 mm and as light as 1.5 pounds (about 680g), making them more convenient for users. More importantly, they have no compromise in computing performance and battery life. While the computing power was ensured, the power consumption of the computer was optimized for extended battery life.

“Our IT equipment management staff is very satisfied with the performance, mobility, and battery life of the tablet PCs based on Intel architecture,” said Xu.

Moreover, since the Intel Atom processor has an integrated graphics processor, it provides high-definition resolution of up to 8 megapixels for the main camera and 2 megapixels for the secondary camera. An employee of Sinopec said, “We are very much looking forward to the new platform. On one hand, our shoulders were freed from carrying a heavy laptop for a mobile office. We don’t even need to carry digital cameras and other devices. We can use the camera on the back of the tablet PC to photograph, if necessary. On the other hand, since the platform has an integrated USB interface and uses the Windows 8 operating system, our original external devices, such as barcode scanners, are perfectly supportable and compatible. Tablet PCs based on Intel Atom processor and Microsoft Windows 8 are our preferred platform for a mobile office.”

Touch-control enterprise applications
For Sinopec operators using the IT equipment management system, the performance of the system on the new platform is fresh, but not new. Intel Atom processor Z2760 is optimized for Windows 8 and provides a complete Windows experience. The user interface is consistent with ordinary PCs. The difference is that you can now directly work on the screen by hand, without needing a mouse.

“Technicians can operate faster and more conveniently than ever before,” said Xu. “Employees who are not proficient with computers or who are old can now work smoothly. Sinopec is more efficient than ever before.”

Next, Sinopec and Intel will continue working together to migrate more enterprise applications based on Intel architecture and Windows 8 to the tablet PCs so that they can benefit from the touch interface, promote business innovation, and continue to improve IT efficiency.

Find a solution that’s right for your organization. Contact your Intel representative, visit Intel’s Business Success Stories for IT Managers (www.intel.com/itisestudies) or explore the Intel IT Center (www.intel.com/itcenter).

LESSONS LEARNED

- Compared with the company’s regular laptops, the Intel Atom processor-based tablets are more lightweight with longer battery life. This makes them especially suitable for enterprise mobile office applications.
- Intel architecture-based tablet PCs are not only compatible with a wide variety of existing enterprise applications, but also provide excellent computing performance and scalability features. These tablet PCs are an ideal computing platform for enterprise applications.
- Using touch control technology simplifies input and lowers the technical requirements for personnel, improving productivity and work efficiency for the enterprise.

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