



KEY HIGHLIGHTS

INDUSTRY TYPE: MANUFACTURING



Results

- Consolidating FAW-VW servers reduced the number from over 100 to about 40;
- Consolidating the servers resulted in enhanced utilization and reduced TCO;
- Excess servers were used to deploy VDI to manage desktop systems more effectively, thus enhancing the availability and reliability of mobile office users;
- Server utilization rate has improved by 60%;
- The system has enabled better server monitoring and streamlined server management;
- Rapid backup and recovery is enabled through virtualization, raising the system's availability and reliability.

VMware Products in Operation

- ESX Server 3
- More than 40 high-performance servers connected to back end SAN storage to display features such as high availability and online migration
- Local operating systems: Windows, Linux
- Various application software for information management

“VMware virtualization solutions helped consolidate and reduce the number of our physical servers streamlined our server management and allowed us to deploy new systems and applications quickly. Moreover, the reduction in the number of servers saved a lot of space. This is exactly what we needed.”

Gu Xiaodong, Manager, IT Infrastructure Office,
Management Services Department, FAW-VW

FAW-VW Automobile Co., Ltd.

VMware consolidates FAW-VW servers

VMware's ESX Server was used to consolidate FAW-VW servers because of data center space constraints and the need for streamlined server performance and management. The deployment of VMware's ESX Server increased overall server availability and reduced deployment time, enabling quick server backup and recovery and enhancing server reliability and applicability. Spare servers are now used to construct a virtual desktop architecture.

FAW-VW addressed data center space constraints, improved server availability and streamlined server management

FAW-VW Automobile Co., Ltd. is a major passenger sedan joint-venture of FAW Group Corporation and Volkswagen AG, Audi AG and Volkswagen Automobile (China) Investment Co., Ltd. It is China's first modern passenger car manufacturing base of substantial scale. After years of rapid expansion, the company now has a daily output of over 1,000 vehicles, with additional capacity to export assembled cars and component parts. FAW-VW has over 8,800 employees.

After years of IT development, FAW-VW has developed a significant IT infrastructure including over 100 x86 servers and numerous storage devices that created a shortage of space in the data center and negatively impacted procurement of new systems. Server management became more difficult, but the most serious problem was lack of backup and recovery solutions, putting the availability and reliability of the entire system at risk.

- Rapid proliferation of servers put a strain on already limited space at the data center;
- Deployment of single servers and single systems contributed to inadequate server utilization;
- Significant rise in number of servers compounded management complexity;
- Enhanced server availability and reliability and an efficient backup and recovery management solution was needed;
- Need for quick system deployment and elimination of time-consuming installations;
- Employee desktop systems needed safer and more reliable solutions.



FAW-VW Automobile Co., Ltd.

ESX Server and VDI help FAW-VW improve system availability and streamline management

FAW-VW consolidated data storage across numerous IT systems. New equipment was procured to carry out storage implement virtualization, helping to classify data and facilitating data center storage.

After virtualizing the servers, FAW-VW reduced the number of servers required for the consolidation of applications from 100 to 40. Through connecting to back-end SAN storage, a Virtual Center has been deployed. With ESX Server 3, the servers have features such as high availability and online migration.

Meanwhile, FAW-VW deployed VDI on remaining servers and virtualized their desktop system, guaranteeing high availability and desktop system security used in mobile offices and by mobile users.

- ESX Server improved server utilization and streamlined server monitoring and management. It also reduced the number of servers deployed from over 100 to around 40.
- Through features such as VMotion and high availability, FAW-VW improved system availability and realized rapid backup and system recovery.
- By deploying VDI, FAW-VW greatly improved availability and security of desktop systems, ensuring key data security.

ESX Server 3 enhanced system availability; VDI improved desktop system security

FAW-VW's server proliferation was a burden on the data center particularly because of a shortage of space. Additionally, key equipment such as UPS and air-conditioning were under enormous pressure. Meanwhile, it was increasingly challenging for over 120 servers to conduct complete monitoring, and the company was unable to have a real-time understanding of CPU status and internal storage utilization.

Without rapid backup and recovery, the company's production system was seriously impacted in situations such as a system breakdown. New applications were often not ready for deployment. and server procurement, installation, patching, and product releases were time consuming.

The company's mobile office users needed secure and available solutions. While users encrypted data on their notebooks, in the case of loss or hard disk damage, system availability was severely affected. VMware's VDI solution resolved these problems.

VMware's ESX Server 3, which allows the deployment of multiple virtual machines on a single physical server, increased server utilization and reduced space pressures at the data center. Sophisticated features such as high availability and online migration are now activated by connecting to back-end storage and establishing Server Farm with multiple servers, which significant improves server availability and reliability, achieving FAW-VW's aim of streamlining the management of the data center.

ESX Server allows for virtual machines to be deployed quickly and new applications to be easily introduced. Deployment time has been cut from several weeks to several hours, allowing prompt response to corporate needs.

VDI also improves desktop system security through virtualization at the server end. A centralized Virtual Center management system allows the company to better monitor and allocate desktop systems; users activate the desktop systems only if they want to. This has improved the utilization rate of servers and the security of sensitive data on servers.

Through the deployment of VDI, FAW-VW has significantly reduced the need for maintenance of front-end desktop systems. In addition, it has lowered the risk of data loss and revitalized redundant servers.

FAW-VW's virtualization architecture deployment created a consolidated, streamlined, effectively managed and available data center with swift system backup and recovery. These significant improvements increased business continuity of FAW-VW's overall IT system. Mr. Gu Xiaodong of FAW-VW said: "We improved space and server utilization through virtualization. Most importantly, virtualization enabled us to deploy servers rapidly and provide a safe and reliable solution for the desktop systems for our staff."