



VMware Helps Jinan Municipal Public Security Bureau Deploy User-Customisable Multi-Force Desktop Virtualization Platform

Over the next few years, cloud computing will be crucial in attempts by Chinese local government to improve efficiency by leveraging mobile working. To deliver a simple, easy-to-use desktop experience for BYOD users in its workforce, the Jinan Municipal Public Security Bureau (JMPSB – the body responsible for local police forces throughout the Jinan metropolitan area), embarked on an ambitious desktop virtualization project based on a VMware vSphere cloud platform for all 20,000 officers.

INDUSTRY

Government

LOCATION

Shandong province, China

KEY CHALLENGES

- Allow secure and reliable access to internal systems for 20,000 police officers from multiple device types
- Mitigate the increasing cost of data security
- Maintain strict access control

SOLUTION

Deployment of three different VMware View-based virtual desktop environments for JMPSB's three different networks.

BUSINESS BENEFITS

- Seamless transition
- Increased application flexibility
- Automation and centralisation of IT management

VMWARE FOOTPRINT

- VMware View
- VMware Horizon Suite
- VMware vCenter
- VMware ThinApp

Supporting Multiple Device Types Without Compromising Security

In the data age, JMPSB officers increasingly need to access IT networks from mobile devices, and supporting the variety of device types used has become an extremely difficult and costly task. These officers depend on reliable information to do their jobs, but ensuring the security of this data takes up so much of IT staff's time that they are unable to deliver the sort of innovations that would help their front-line colleagues serve the public better.

Poor Performance Outside the Office

Police work is not a desk-based job, but JMPSB was finding that a constant stream of patches and updates compromised the speed at which applications could run on mobile devices and hence the effectiveness of its officers.

Defining the Requirements

JPSB had various key criteria for its virtual desktop solution. Firstly, it would need to support a wide variety of device types. Secondly, it needed to allow administrators to control access to sensitive data and applications, both in terms of permissions for its own users and in terms of watertight security against external attack. And thirdly, it would need to deliver the required level of performance at an acceptable cost.

Different Desktop Virtualization Solutions for Different Networks

JMPSB operates three different types of network, each with different characteristics and operational requirements. Firstly, there is its own internal network, which is used for storing and sharing data and applications. To ensure security, it is physically isolated from external networks, and protected by a bespoke access control application. In addition, applications on this network are further safeguarded by technologies such as digital certificate authentication, USB key authentication and mapping redirection.

Secondly, there is the external network, which allows citizens to transact with the police online via the JMPSB website. This requires only simple browser/software and Microsoft Office applications, with an ordinary browser, and has no special security requirements or technical restrictions. And thirdly, there is a dedicated image network which is used for graphical and video applications (route plotting, real-time video feeds) by officers in the field. This requires both larger bandwidth and more graphics processing power on the user's desktop.

Using VMware View, different virtual desktop environments were created for each of the three network types.

Putting End Users First

For the Bureau's internal network, a thin client/virtual desktop environment has been

VMWARE CASE STUDY

“Following the opening of our cloud-based data centre, the launch of our VDI brings the benefits of the cloud to frontline operations. It supports the various operational environments used by the different local forces under the bureau’s control, and is one of the largest and most advanced integrated multi-force cloud platforms in China. VMware will remain a key partner as we move forward in using cloud technology to improve IT reliability and flexibility, and as such will help JMPSB to build a safer Jinan.”

Yang Nan

Head of IT Security and Operations,
Jinan Municipal Public Security Bureau

created with the VMware Horizon Suite, which enables virtual machines to be assigned an address on that network, and managed and published using vCenter Server and View Manager. VMware ThinApp enables officers to access all applications from their virtual desktops in the field, while VMware View supports centralised management of application upgrades and access control, so neither performance nor security is compromised.

For the external network and the dedicated image network, the user experience is almost identical to the previous PC-based interface.

Focus on Continuity

When the new JMPSB building opened in April 2013, it housed a dedicated space for the desktop virtualization equipment. When staff moved into the new building in June that year, 1,500 virtual desktops on the internal, external and image networks were activated. The new solution will now gradually be rolled out to branch offices and individual police stations, taking into account the lessons learned from the initial switchover, until all 20,000 JMPSB user desktops have gone virtual.

Increased Application Flexibility

The switch to virtual desktops delivered via the new cloud platform has been seamless. A single template is used by all frontline officers to download applications to their terminal devices, which greatly simplifies operational planning and increases flexibility.

More Efficient IT Management

The switch to VDI has enabled JMPSB to centralise management across all three networks, greatly simplifying patch deployment, upgrades, maintenance and issue resolution. The cloud platform also allows automated allocation of resources and energy saving, based on usage patterns. End users can still customise their desktops to their personal preferences (within certain restrictions), just as before.

