

The North Carolina State Highway Patrol modernizes operations with help from IBM



Overview

- **The Challenge**

Migrate to a powerful, IP-based infrastructure

- **The Solution**

IBM @server xSeries 330 and 220 servers running IBM Director and a Microsoft® environment (Microsoft Exchange Server and Microsoft Windows® 2000 Server)

- **The Benefit**

Robust hardware and software that is reliable and easy to manage

From Model A coupes to IP connectivity

The North Carolina State Highway Patrol (NCSHP) has been enforcing motor vehicle laws and assisting the motoring public since 1929. Back then, the state's 9 lieutenants drove Ford Model A coupes, and all 27 patrolmen rode Harley-Davidson motorcycles.

Today, the NCSHP employs 2,000 people and uses cutting-edge technology and tools that help ensure safe and efficient transportation on North Carolina's highways.

In 1997, the NCSHP initiated a plan to revamp its Systems Network Architecture (SNA) configuration with Internet Protocol (IP) connectivity. "Since the early 1980s, when we first started to use computers, we were 100 percent SNA," says sergeant Rudy Hines.

"We determined that people's jobs could be done more efficiently using IP so we decided to make the jump." Initially, budget considerations forced the Highway Patrol to make do with servers that had been converted from desktop PCs. As the network became more sophisticated, Hines knew the makeshift servers needed to be replaced with powerful, state-of-the-art machines.

A trustworthy partnership

Over the past 18 years, the NCSHP has used IBM products extensively, and along the way has developed a strong belief in the reliability and value of IBM technology. It was an easy decision to update the NCSHP's infrastructure using IBM @server xSeries 330 and IBM @server xSeries 220 models.

The NCSHP's x330 and x220 servers run the Microsoft Windows 2000 Server operating system. The xSeries 330 servers feature a maximum memory of 4GB* and up to 72GB** of internal storage, and the x220 servers include up to 4GB* of memory and maximum internal storage of 145.6GB**. Both the x330 and the x220 are power-packed, scalable servers that ship with industry-standard tools to help manage the network and minimize downtime.

One of those tools, IBM Director, allows the NCSHP to remotely administer servers at their branch office locations—saving time and resources. The NCSHP also uses IBM Director's software rejuvenation function, which can predict pending application and operating system failures and automatically refresh the software for optimal operation.

"Any tool we can use to help administer our network and avoid costly downtime is really appreciated," says Hines. "IBM Director makes it much easier to remotely manage our IBM servers from one central site."

Microsoft Exchange Server 2000 is another key component, providing an integrated messaging and collaboration infrastructure that seamlessly combines with Windows 2000 Server. The agency plans to use Exchange Server's video conferencing feature to conduct meetings without requiring some staff members to drive four to five hours across the state.

Seizing elusive results

Since migrating to the IP-based environment on the xSeries servers, the NCSHP has been able to streamline its operations and give employees the tools they need to do their best work. An example of the new capabilities is the "Click It or Ticket" application, which tracks seatbelt violation data. Previously, the NCSHP headquarters received faxes detailing violations from 65 to 70 checkpoints across the state. The data was then manually entered into a tracking system—a lengthy process that often resulted in errors. The new application is Web-based and features an easy-to-use entry form, which gives officers access to accurate, realtime information.

The xSeries servers have made work simpler for Hines and the NCSHP in more ways than one. "Our server room is so confined that anything that we can do to save space is greatly appreciated," says Hines. "I've been able to squeeze the area we use from two-and-a-half racks down to three-quarters of a rack."

For more information

To learn more about this solution, visit the following Web sites:

ibm.com/eserver/xseries

www.ncshp.org



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* Maximum memory may require replacement of standard memory with optional maximum memory module.

** Maximum internal storage capacity assumes the replacement of any standard hard disk drives and the population of all hard disk drive bays with the largest currently supported drives available from IBM.