

Mobility XE Increases Utility Worker Efficiency

Field service efficiency is a top priority for utility companies -- with mobile solutions the most effective way to increase utility worker productivity and efficiency. Using a mobile VPN, workers in the field can quickly and easily access customer information, speeding the time for delivery of service. Whether they are checking on a gas leak, reading a gas or electric meter, or responding to a customer service request, mobile technologies enable utility companies to increase their field service efficiency and customer satisfaction.

This case study outlines the use of the Mobility XE mobile VPN in a large energy services holding company that serves over 2.2 million customers across six states. The company has been ranked as one of the Ten Best Managed Utilities by Forbes magazine and also listed in the Forbes Platinum 400 List.

OBJECTIVE

The utility company's key goal was to increase the productivity of their field service engineers by giving them access to project information from job sites and customers' homes. Equipped with ruggedized Tablet PCs, remote workers received project information such as gas service requests, leak repairs and other above ground gas service work. Field service engineers used an Automatic Dispatch System (ADS) loaded on their PCs to receive and transmit job information. Over time the needs of the field service engineers outgrew the smaller tablet PC format and was replaced by ruggedized laptops that gave users greater access to applications and data. Cellular carriers were offering coverage across the wide geographic areas that the utility supported and soon field workers began asking for the option to connect their laptops to these high speed networks.

CHALLENGES

"We were trying to accomplish a lot over a short period of time," relates the senior network engineer. "We were migrating our users to an IP-based system to take advantage of the faster cellular network coverage that was available. At the same time, we were also rolling out Wi-Fi network coverage at several remote locations for our workers. One of the first issues we ran into was the ADS was not designed to run over a wireless network in its current configuration. It was designed to be in an 'always-on' state which worked great when you were connected to a LAN but didn't function well when you're wireless."

"We needed a simple solution," continued the network engineer, "In our testing, users lost wireless connectivity throughout the day and had to relogin to the ADS every time this happened. Sometimes they even had to shut down or restart their devices that froze due to lost network connections. These problems slowed worker productivity and increased our support calls to get devices back online." One option that they considered was to upgrade their ADS, but there were many other applications from email to their workforce management system that also needed to work over wireless. Instead of redesigning each application, they wanted to find a solution that would resolve their overarching wireless connectivity challenges and let them leverage their existing applications without upgrades or modifications.

Lastly, they needed a VPN that would work across wired and wireless networks to ensure that their data was secured. With field service engineers spending most of the work day outside of the office, both data and device security were extremely important for the ongoing deployment of devices to remote workers.

Industry

Utilities

Challenges

- Utility applications not designed to work on wireless networks with intermittent coverage (cellular data)
- Workers' laptops and applications crashed when devices lost network connectivity
- Utility wanted to leverage existing applications and not upgrade/modify for wireless connectivity
- Workers needed simplified access to their applications without complex device logins or network configurations

Solution

- Mobility XE VPN solution

Results

- Mobility XE VPN kept application sessions alive through wireless coverage gaps
- Workers could access all of their applications without complex logins or network configurations
- Mobility XE's speed optimizations increased data throughput across cellular networks
- Support calls related to network connectivity dropped significantly
- Utility's data secure with 128-bit AES encryption

SOLUTION

"We began testing Mobility XE, and it solved the persistence and multiple login problems that our users were experiencing," the utility's network manager explains. "We had users that would start their day in the office, take their laptop to the truck and drive to a job site, with Mobility loaded on their laptop they stayed connected the whole time and didn't have to relogin with every dropped connection." With Mobility XE loaded on each of the laptops, as users went from office LANs to Wi-Fi or cellular data, their connection was maintained and their devices worked more stably. "Our field service workers still find themselves on job sites with no coverage though," adds the network manager, "but they no longer have to relogin several times a day or deal with crashed applications. As soon as they're in network coverage they're back online, and this saves us time."

In addition, Mobility XE allowed their field service engineers to gain access to applications and resources that previously only office workers had. "Now our remote workers can access our intranet, email, homegrown GIS application and even their work management system. The field service team never had this much information before," says network manager. Mobility XE also provides web acceleration and data compression to speed up the network connection when using cellular data networks. "We've got faster connectivity and applications are running faster too," the manager concludes.

The utilities data security team also reviewed Mobility XE's VPN capabilities and found it to meet their needs for data security. Using FIPS 140-2 validated cryptographic modules, Mobility XE provides AES encryption at 128, 192 or 256-bit protection ensuring the utility's data is protected.

Overall, Mobility XE was a key component of the utility's strategy to increase the productivity of their field service engineers. On any given day, they have 400 to 600 engineers servicing gas needs at customers' homes, remote job sites, or wherever projects require them to go. And, now they can access key data from their ADS and workforce management system as well as other applications securely and remotely. The utility has also seen support calls related to mobile connectivity drop from a dozen per week down to only a couple every few weeks, freeing their support staff to focus on more urgent issues.

NEXT STEPS

With their deployment well under way, the utility is refining user experience with NetMotion Wireless' Policy Management. Policy Management is an add-on module that lets network managers control the networks, applications and devices that users have access to. For example, using Policy Management the network management team can specify predefined websites that field service engineers can visit and use.

The utility is also exploring options to deploy handhelds to some field engineers in the future. As Mobility XE supports the Windows Mobile platform, the utility's field service engineers can continue to leverage their existing applications and resources even from handheld devices.

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--- Utility Network Manager