

Nevada Dept. of Transportation Helping drivers stay safe with a hardened ITS network

"The new solution makes it simpler to provide the best services throughout the 25 billion miles travelled by our road users annually, providing the right information for safe travel and ultimately reducing the time spent on the road. ALE went above and beyond throughout the entire process."

Gary Molnar, ITS Network Manager

The Nevada Department of Transportation (NDOT) is responsible for the planning, construction, operation and maintenance of the 5400 miles of highway and over 1000 bridges that make up Nevada's state highway system. NDOT's primary goal is "safety first".

CHALLENGES

One of NDOT's objectives is to increase safety on the state roads by offering drivers real-time information on road, traffic and weather conditions. To achieve this NDOT needed to harden its data network to withstand the harsh Nevada climate and support a growing number of devices.

ACTION

Looking to the future, NDOT wanted to lay the foundations for its next generation Intelligent Transportation System (ITS), making it easier to connect and manage the growing mesh of Internet of Things (IoT) devices on the state highways.

The Alcatel-Lucent OmniSwitch® 6865 offered the benefits of a hardened switch while supporting Shortest Path Bridging (SPB), a key requirement for NDOT. Another crucial factor in NDOT's decision was the quality of support offered by ALE, including full access to the design and engineering team. The ITS network would help NDOT to fulfil its mission to provide a better transportation system for Nevada through unified and dedicated efforts.

PRODUCTS AND SOLUTIONS

Alcatel-Lucent OmniSwitch 6865 Hardened Ethernet Switch
Alcatel-Lucent OmniSwitch 6860E Stackable LAN Switch
Alcatel-Lucent OmniSwitch 6900 Core and Data Centre Switches

RESULTS

Technical benefits

- Hundreds of hardened switches will form the backbone of NDOT's network
- The network acts as a base to support future technology like next generation sensors, status notification systems, and connected cars
- SPB allows the IT team to create a scalable network while cutting the time it takes to roll out new devices, services and applications

Financial benefits

 The ability to remotely manage the network, including rebooting devices, has generated time savings for NDOT and freed personnel to focus on other mission-critical tasks

User experience benefits

- Real-time data is sent from various devices, including IP cameras, ensuring that drivers have access to up-to-theminute information they need to plan their journeys safely
- Connected road signs enable drivers to make smart decisions while on the road, increasing safety and improving traffic flow

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