

Application Brief



Customer

Chongqing, Shaanxi and Yunnan Highway Groups

Partner

Beijing Omate
www.omate.com.cn

Location

China

Industry

Transportation: Tunnel Monitoring



“The rapid expansion and scale of the Chinese tunnel system is very impressive, covering long distances and passing through difficult, mountainous conditions. Red Lion’s unique ability to combine rugged reliability with enterprise-class features makes it ideal for challenging projects like the Chongqing, Shaanxi and Yunnan highway tunnels.”

*- Liu Yunping,
Beijing Omate*

Project Scope

Escalating economic conditions have driven the development of China’s transportation infrastructure. Due to varying geographical terrains, long-distance tunnels are being constructed throughout the nation. These tunnels, which vary in length from one to two miles, face volatile temperature fluctuations coupled with humidity, dust and vibration. In order to meet such rugged conditions, industrial solutions are needed to help monitor and manage systems that include video monitoring, safety, traffic control and toll collection.

Solution

Beijing Omate is using Red Lion Sixnet industrial Ethernet switches to deliver real-time highway monitoring and communication systems for tunnel projects that connect China’s Shuijie, Zhongdian, Yunnan, Lindian, Baoni and Fuyan highways. Red Lion’s rugged industrial networking solution enables Beijing Omate to reliably meet these extreme conditions while providing the advanced enterprise features required for redundancy, management and security.

Benefits

Red Lion's Sixnet SLX series of industrial managed Ethernet switches allow Beijing Omate to provide reliable performance and fault tolerance over long highway tunnel distances through single-mode fiber optic cabling and redundant ring network configurations.

The Red Lion Sixnet switches also offer SNMP, RMON and web-based management, port-based VLANs and tagging and support for IGMP multicast control. This enables the highway tunnel systems to efficiently utilize network-based technology to monitor traffic patterns, inform motorists of traffic and road conditions, re-route traffic to avoid accidents and manage vehicle toll collection.

Products

Model	Description
<u>SLX-5MS-5SC</u>	5 port managed switch with 2 singlemode fiber uplinks
<u>SLX-8MS-5SC</u>	8 port managed switch with 2 singlemode fiber uplinks
<u>SLX-8MS-9SC</u>	8 port managed switch with 4 singlemode fiber uplinks
<u>SLX-10MG-1</u>	10 port managed switch with Gigabit multimode or singlemode fiber
<u>SLX-18MG-1</u>	18 port managed switch with Gigabit multimode or singlemode fiber

Network Diagram

