

DOT Links Traffic Network Hubs With JumboSwitch® Modular GigE Switches

Case Study

Introduction

A large, western state Department of Transportation (DOT) wanted to build six hub sites to transport services over its highway communications network. DOT planned to connect serial and Ethernet, signaling/control devices, IP cameras and maintenance telephones to the central office.

Obstacles

The system was using standard Ethernet copper switches for many hub links. DOT wanted to modernize their network for future expansion and explore options that did not require media converters. In particular, they wanted rugged Ethernet switches with a modular and scalable design. They anticipated an addition of IP services including IP video, traffic control systems, signaling and IP technology.

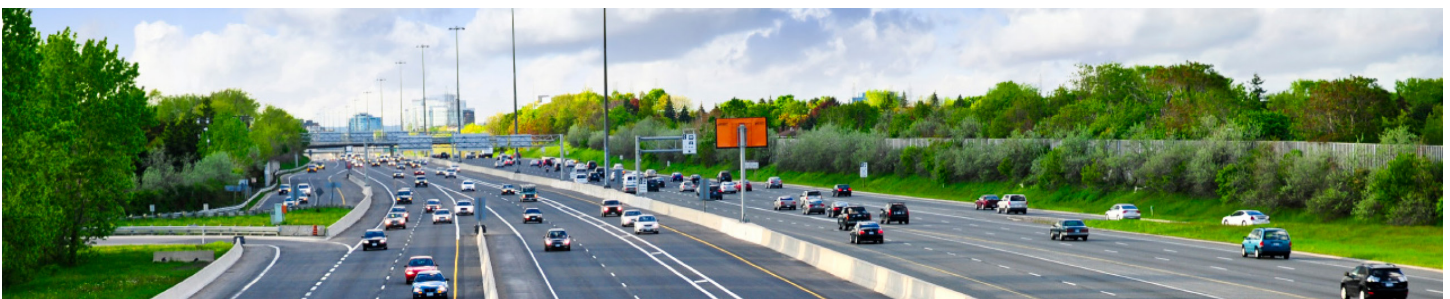
Solution

DOT chose the JumboSwitch Industrial Gigabit Ethernet Modular Switch. JumboSwitch offered modular, expandable capabilities, and telephony on a single industrial grade Ethernet/IP platform. Several vendor Ethernet Switches offered many pieces of network convergence but most came up short with voice or modular interface card flexibility. Only the JumboSwitch gave DOT all the interfaces they were looking for in one Ethernet/IP chassis.

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Summary

- DOT wanted to modernize their networks with modular and scalable Ethernet switches
- Equipment was to connect to Intelligent Transportation System (ITS) devices



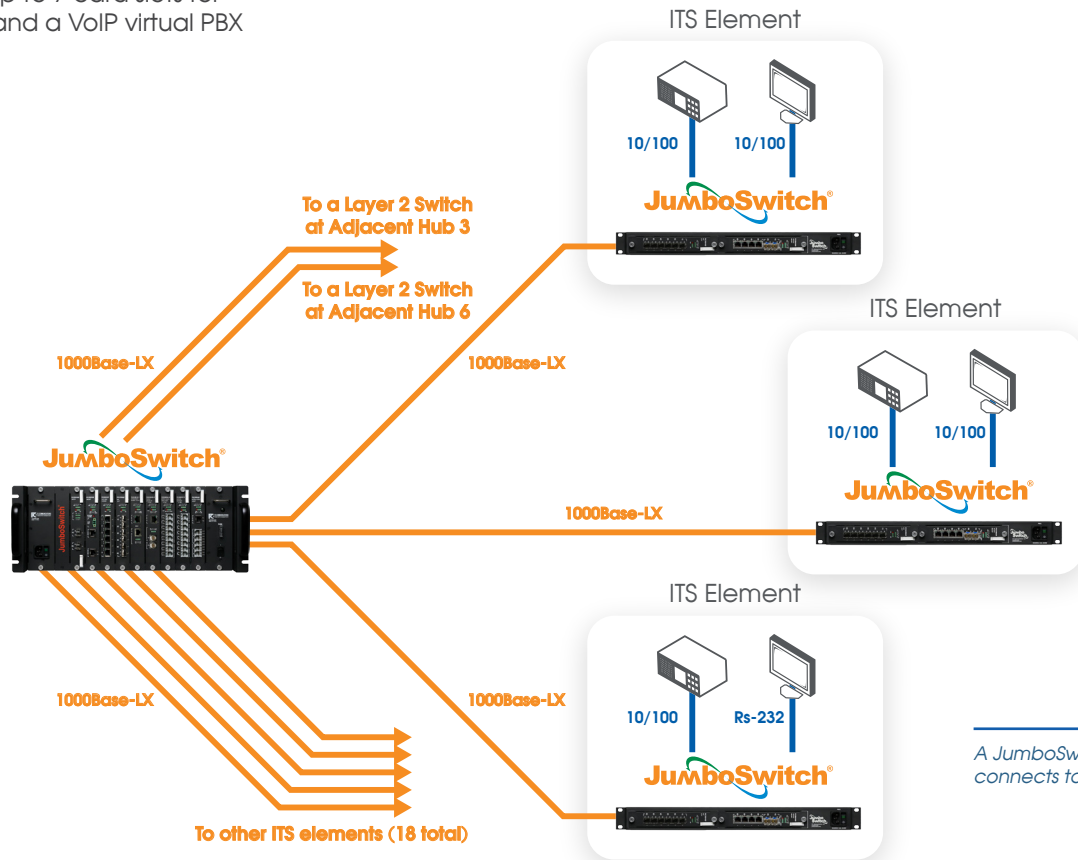
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Integration

JumboSwitch forms a backbone to the new hub sites and communicates with existing Layer 2 Ethernet switches at the traffic management center. Modular interface cards with four chassis options, 12 different interfaces (including up to 42 Ethernet Switch ports) with up to 7 card slots for expansion, and a VoIP virtual PBX

card for a complete telephony solution are all offered on their new platform. Interface cards are hot-swappable and all configuration parameters for Ethernet cards are automatically downloaded to prevent re-configuration errors to minimize service outage.

The DOT opted for three 4U JumboSwitch units with four 6-port Ethernet Cards and one VoIP card. Three cards connected to 18 different Intelligent Transportation System (ITS) devices and one card provided three 1000Base-LX links to ITS cabinets with IP Video Encoders and RS232 traffic controllers.



A JumboSwitch connects to ITS devices.

About TC Communications

TC Communications specializes in TDM over IP network solutions including Analog Radio, Voice, Serial and T1 products. Applications include Leased Line Replacement, Voter Comparator over IP and Multi-Service communication networks. Focused on mission-critical applications, TC products are designed to help Public Safety networks transition to IP/Ethernet without replacing existing analog equipment. All services including engineering, manufacturing, and support located in Irvine, California, USA since 1991.



Designed and made in
Irvine CA since 1991

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