Intelligent Transportation System

Proxim Transportation Solutions

Proxim products network together all the different components of a transportation system over hundreds of square miles with an end-to-end mission critical wireless network. Proxim's high-bandwidth, high-availability solutions have enabled a broad range of ITS applications including traffic signals, digital messaging signs, electronic toll collection, video surveillance and speed sensors. With industry leading QoS a single Proxim Wireless network is capable of carrying all the ITS traffic and ensuring proper delivery with minimum latency.

Advantages

- Powered by WORP® QoS Proxim's networks ensure high system availability and support for multi media mission critical applications
- FastConnect Proxim's Mobility Protocol guarantees seamless application performance and broadband connectivity to vehicles and vessels in motion even at speeds of up to 285 km/h (196 mph)
- Proxim ClearConnect®, representing a suite of technologies designed to combat interference gives Proxim wireless networks a major advantage when operating in the harshest RF environments
- Deploys virtually anywhere low profile and compact footprint allowing Tsunami® devices to be installed on buses and trains
- Installation is relatively easy and a robust IP67 grade enclosure is used for complete environmental protection
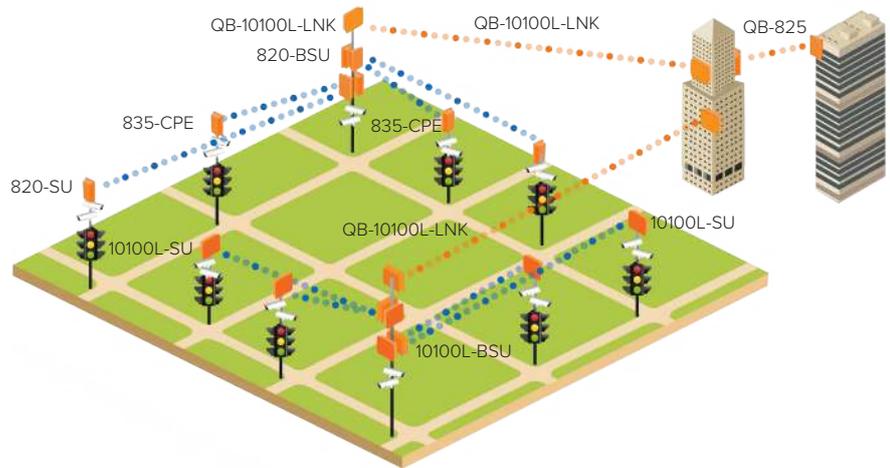
Applications

- Update dynamic message signs along highways to warn drivers of road conditions, accidents and detours
- Seamless connectivity to traffic management centers
- Solar power traffic detection radar sites
- Wireless remote management
- Traffic Light Control
- Red Light Running
- License Plate Recognition
- Video Surveillance
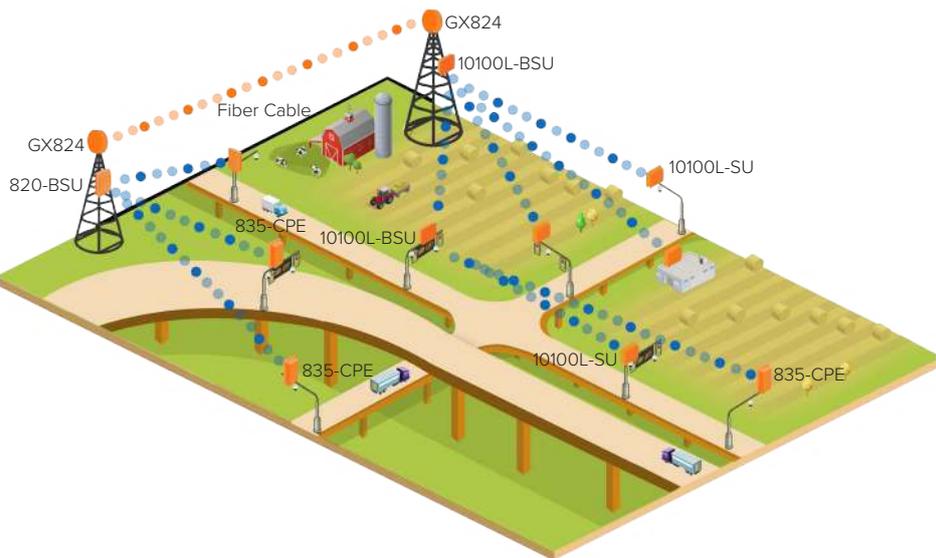
Deployments and Applications

City Wide Surveillance

Wireless provides rapid deployment with no expensive trenching or, cabling and implementation cost equivalent to 1/10th of a wireline based surveillance network. Proxim's wireless solutions prove to be an ideal choice for an city - wide surveillance network. Powered with Proxim ClearConnect™ and WORP® technology, Proxim's solutions enable high resolution, real-time video from security cameras to the surveillance centers.
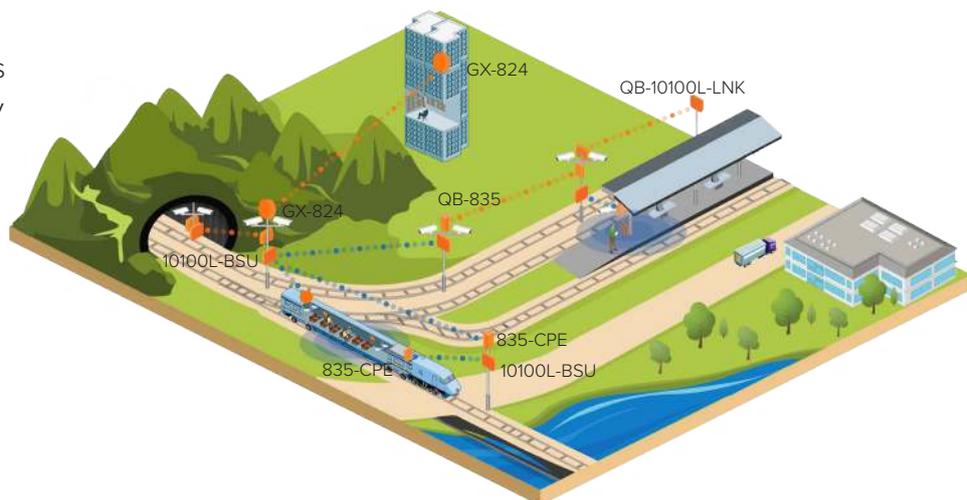

Highway

With Proxim's high uptime, low-cost, MIMO based PtMP subscriber units and PtP bridges, ITS devices can now be inter-connected with much less expense and more scalability in comparison to the traditional wired ITS solutions which involve time consuming activities of trenching and cabling not to mention the heavy capital and operational expenditure.
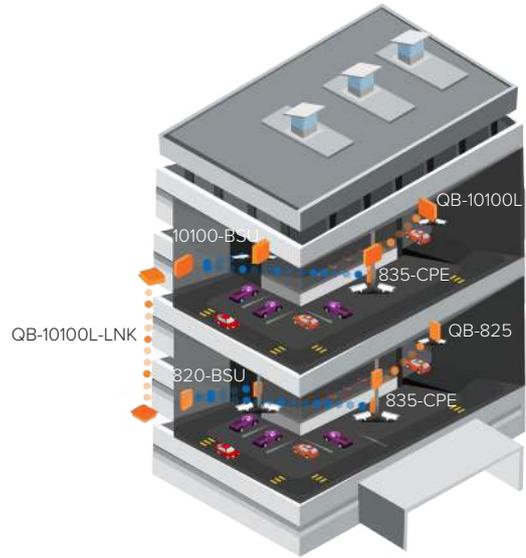

Railway System

By leveraging Proxim's wireless solutions railway organizations can cost effectively and effortlessly install various ITS components even in challenging spots such as underground tunnels etc. Additionally Proxim's Tsunami® QB-10100L series with its roaming capability allows passengers accessing the internet via Wi-Fi hotspots and control stations to seamlessly receive and transmit data from fast moving mobile trains.

Deployments and Applications

Parking Garage

By utilizing a combination of Proxim's wireless LAN, backhaul and multi-point solutions today's parking facilities can experience high resolution surveillance networks with superior scalability at costs far less than wired solutions.
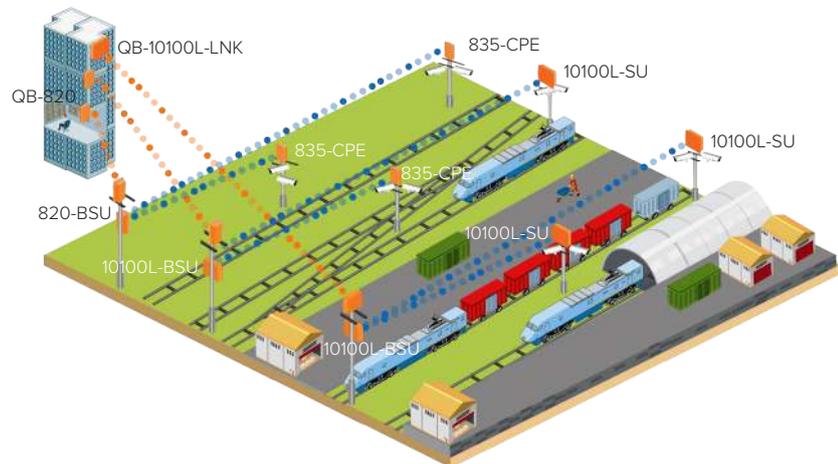

Airport Surveillance

Enforced with multiple levels of redundancy, Proxim Wireless solutions connect departments and offices within an airport in a scalable, robust network with superior uptimes /availability of 99.999%. In addition Proxim's solutions provide internet access with mobility to passengers, thereby increasing the overall experience of an airport.

Rail Yard Surveillance

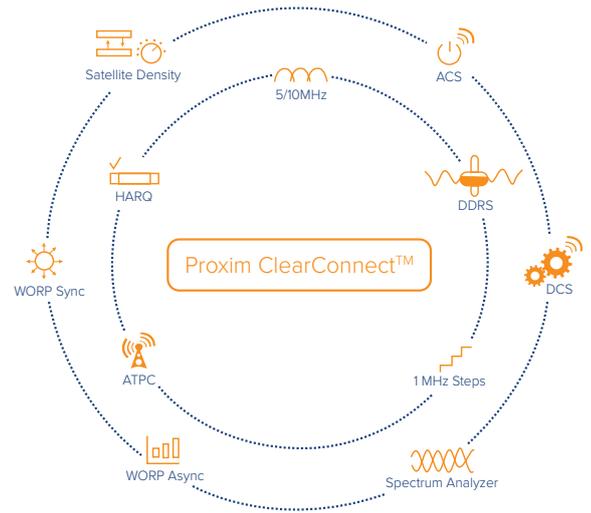Proxim Wireless Solutions, with its point to point and multipoint solutions, allow a variety of cameras ranging from high definition, wireless IP surveillance to standard definition cameras to be bound into congestion-free surveillance networks. With Proxim's robust and reliable radios, rail yards can now be placed under a virtually ubiquitous "watch", round the clock with low capital and operational costs.

Key Technologies

Proxim ClearConnect™

Helps ensure Tsunami® radios perform even in the most RF hostile conditions where other standard wireless technologies simply fail to perform. It offers a host of adaptive features including Dynamic Channel Selection, Satellite Density, Beam Steering and many more to ensure high spectrum efficiency with minimal error rates.

Satellite Density · 5/10MHz · ACS · HARQ · DDRS · WORP Sync · DCS · ATPC · 1 MHz Steps · WORP Async · Spectrum Analyzer

Proxim ClearConnect™

WORP®
WIRELESS OUTDOOR ROUTER PROTOCOL

MOBILITY · SURVEILLANCE · ITS · BACKHAUL

EFFICIENCY
Lower overhead, Link quality optimization innovations and super packing ensure maximum system efficiency and throughput

SCALABILITY
Whether supporting one subscriber or 100, the total throughput with WORP® remains virtually unchanged

SECURITY
WORP® offers multilayer security. A proprietary protocol, AES implementation and mutual authentication deliver highest levels of security

QoS
Centralized control of the network and WORP®'s advanced QoS algorithms means the network can support voice, video and data simultaneously

WORP®

Proxim has invested over fifteen years of continuous development and wireless expertise to create our Wireless Outdoor Routing Protocol known as WORP®. WORP® is a reliable, secure, and highly efficient protocol that guarantees delivery and optimal performance with Quality of Service controls, supporting quad play applications on a single wireless network such as mobility, video surveillance, VOIP and other delay sensitive multimedia applications. WORP® also helps ISPs control bandwidth and differentiate service offerings with the ability to enforce SLAs.
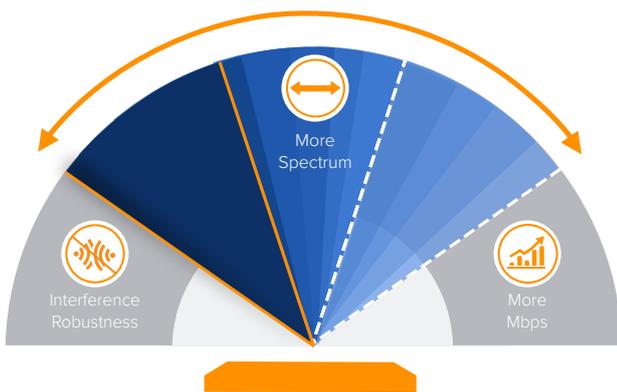
Proxim FastConnect™

Tsunami® with the help of Proxim's roaming technology - Proxim FastConnect™, is able to establish unparalleled handoff times and support delay-sensitive multimedia applications even when mobile at speeds of up to 285 km/h (196 mph).

Video Surveillance · Passenger & Transportation Management · Onboard WiFi

Proxim FastConnect™
High Speed Mobility for Buses, Trains, Metros and Ferries

More Spectrum · Interference Robustness · More Mbps

Proxim SmartConnect™
Intelligent Technology Avoiding Interferences

Proxim SmartConnect™

Proxim SmartConnect™ is the next generation intelligent interference handling technology innovation that anticipates disturbances to optimize performances. It combines Proxim's beam steering (BeamX™) antenna and scan radio (Proxim SmartScan™) - on the very high throughput, high power, robust and especially reliable Tsunami® 10000 platform. This new improvements result in an extremely robust solution that delivers more Mbps, even in the face of interference and opens up additional 5GHz spectrum.