INTELLIGENT TRAFFIC MANAGEMENT WITH RED LION

Remote Management of Traffic Lights

State Department of Transportation officials face many operational challenges, especially as city populations continue to rise and traffic patterns become more complex. Accordingly, they must plan out ways to effectively increase the capacity and the capabilities of their traffic management systems. Historically, these systems do not utilize solutions that deliver real-time communications, with many traffic controller units being preprogrammed on-site to operate autonomously. One State DOT office reached out to USAT to change that.

Case Overview | SMARTER TRAFFIC CONTROLS

A major department of transportation responsible for managing the traffic systems of one the most populous states in America reached out to USAT through one of our state contracts. Many of their traffic controllers were of the preprogrammed and fully autonomous variety. Such devices required manual updates any time traffic patterns required a change. They needed a way to reduce the high cost of truck rolls associated with these updates. The skilled team at USAT was up to the task, and laid out cellular solutions to add the intelligence their systems needed.

Challenges Faced

Cost of Truck Rolls

Sending out a team every time a set of traffic light patterns are in need of an adjustment is expensive.

From the costs associated with fleet vehicle maintenance, to the cost of the human resources involved and the potential risks associated with the deployment of those resources to high traffic areas.

Remote Management

The cost of truck rolls and risks of performing them are a direct result of systems that require on-site and in person updates.

They needed a wireless solution that would enable over-the-air updates and configuration to their controllers while using specific in-house traffic management software.

Rugged Solutions

The Northeast of the United States, is known for its varied and rough climate with temperature extremes.

In the winter there's snow, in spring there's torrential rain, and in summer there's soaring heat waves.
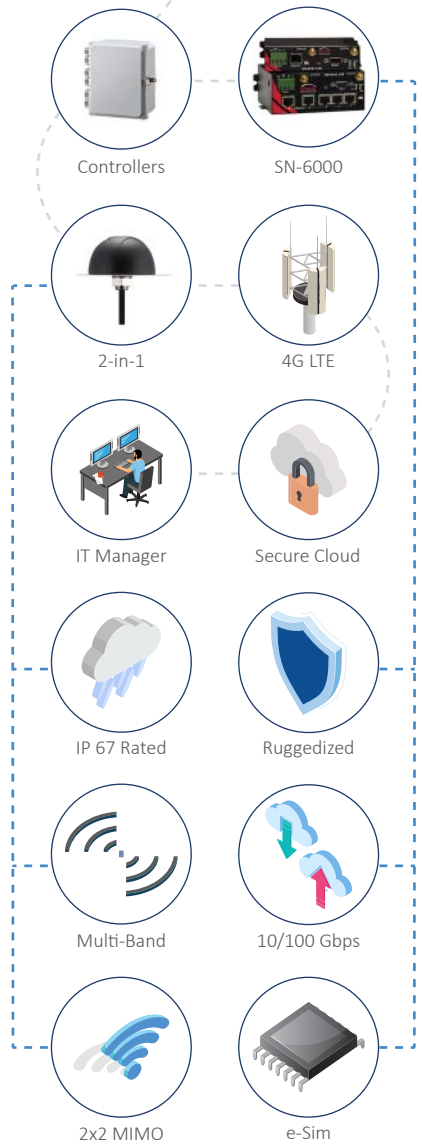
The solutions the DOT deploys must be able to handle harsh conditions.

Rapid Deployments

The DOT needs a solution that can be deployed quickly and easily.

Both to minimize deployment costs and the downtime of systems at vital intersections.

The components they utilize need to be preconfigured to operate within their existing network infrastructure.

Controllers   SN-6000

2-in-1   4G LTE

IT Manager   Secure Cloud

IP 67 Rated   Ruggedized

Multi-Band   10/100 Gbps

2x2 MIMO   e-Sim

USAT can deliver state transportation departments the end-to-end communications solutions they need to support intelligent traffic management systems.

Red Lion Ruggedized Routers and Antennas

We helped our client outfit their traffic controller apparatus with industrial SN-6000 cellular routers and 2-in-1 cellular antennas from Red Lion. These rugged communications devices, enabled 4G LTE connectivity from DOT headquarters to the devices and software used to program the cities traffic lights.

With each router activated on the Verizon carrier network and provisioned to operate within the existing network infrastructure, this solution enabled the DOT to remotely control light patterns at intersections citywide, without the need to deploy truck rolls.

Hardened against varying weather, temperature, and humidity extremes, we delivered a solution that was engineered to last.

Shipped Ready and Delivered "Hot"

The DOT employed the experts at USAT to pre-configure all the devices prior to shipment. USAT worked with Red Lion to build templates that met the DOT's exacting needs and worked with Verizon to get every device activated on their network.

Because of this, every device arrived ready for immediate installation within their controller housings, ready to be plugged in and powered on. After install, each router and antenna pair enabled nearly instant connectivity to Verizon's private network.

Their department saw an almost overnight improvement to their traffic light management systems. With 4G LTE, they gained the ability to manage their systems remotely and in real-time.

Why Choose USAT?

For the last 25 years USAT has provided expert IoT connectivity solutions to traffic management agencies. Our team supports each and every aspect of mission-critical connectivity projects. We engineer and provide solutions utilizing only top-tier cellular equipment from the most trusted manufacturers worldwide.

Our DevProv+ services team configures, provisions, kits and ships your devices hot and ready for immediate use. And our installation teams ensure your devices are functioning securely, reliably, and at peak performance.

Reach out to USAT today to rapidly deploy cellular solutions that meet your agencies exacting traffic management needs.

CONTACT ONE OF OUR SOLUTIONS ENGINEERS TODAY