



Connectivity plays a crucial role in Intelligent Traffic Systems and, thanks to our recent partnership with Verizon Wireless, MoboTrex is now equipped to provide cellular and VPN services to our customers. This puts MoboTrex in a position to be a full-service provider in regard to communication solutions.

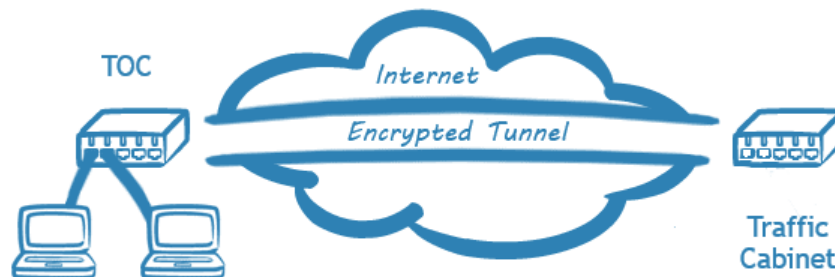
Cellular is a dependable and inexpensive communications alternative in areas where it's not feasible to implement fiber. Cellular can also replace analog phone lines, which are slow, expensive, and difficult to maintain. Installing a cellular router in a standalone traffic cabinet or at the start of a corridor that has existing fiber or radio communications is an effective way to bring back single or multiple signalized intersections to your Traffic Operations Center (TOC).

CELLULAR EXPLAINED

Similar to how a mobile phone works, cellular communications through Verizon will bring an Internet connection to a router installed in your traffic cabinet. Any network-capable device inside the cabinet may have access to cellular communications and be reachable from your TOC, however this service is not designed for streaming or extensive viewing of video due to how much bandwidth video streaming consumes. Note that many cellular providers claim they offer unlimited bandwidth but typically, at some point, the carrier will suppress your connection speed to a point where it is fundamentally unusable. MoboTrex will monitor bandwidth usage and work with you to prevent that from happening.

VPN EXPLAINED

Providing cellular service to your traffic cabinet is just the start, but a Virtual Private Network (VPN) is necessary to route that data from your cabinet back to your TOC. A VPN is a private network connection between two or more computers that is isolated from all other computers. Nobody else can access the network and see what's happening. A VPN does the same but over the internet. It uses data encryption and special hardware to make your connection inaccessible to other internet users. It's like a wire connecting those same two computers – only this time the 'wire' is the entire internet. The scale is much bigger, but the level of security is the same.



A VPN is needed to establish a connection from a cellular location to an existing network. Without having a VPN in place, data generated at a traffic cabinet will not know how to reach your TOC, and vice versa.



Cellular Solutions



EQUIPMENT NEEDED

MoboTrex has had great success working with Advantech B+B SmartWorx, based out of Ottawa, IL. They have a variety of cellular routers that are certified with Verizon Wireless, including the NEMA-rated SR305 Series 4G LTE Router. This highly configurable router offers between 2 and 5 Ethernet ports, WiFi, RS-232/422/485 Serial Ports, and PoE. It supports IPsec, OpenVPN, and L2TP VPN types.



MoboTrex utilizes the SkyWave 16-7033A 5-band MIMO antenna with our cellular deployments. This low-profile antenna mounts to the roof of the traffic cabinet and offers two cellular connections, along with GPS and the optional Wi-Fi.

Bring your own SIM card or use one provided by MoboTrex!

MoboTrex can provide three types of service packages to deliver the type of connectivity solution you need!

Basic Cellular Service

MoboTrex will provide Verizon Cellular services to any location that has Verizon coverage, where a SmartFlex router and antenna would be installed. Basic Cellular Service includes a SIM card and a cellular internet connection, like what you have on your cell phone.

Premise-based VPN Service

Service includes Basic Cellular Service plus either an additional SmartFlex router installed on the end user's network, or the customer already has a device on their network to manage and terminate a VPN connection. MoboTrex will work with your IT department if applicable, on getting the VPN terminations set up on your TOC network.

Hosted VPN Service

Service includes Basic Cellular Service plus a VPN connection into a cloud-based network managed by MoboTrex, which includes customer access into a Tactics platform. This provides a connection between a traffic cabinet and our hosted Tactics Server, which can email or send text alerts to the customer. Customers will be set up with remote access into this Tactics server so they can manage their own intersections. Intersection configurations will be backed up on a weekly basis.

Contact your MoboTrex representative today for more information!

