



ERICSSON

Providing secure
Wireless WAN
connectivity at
intersections

Executive summary

The IT department of a large US city needed to securely connect 1,600 traffic lights and cameras at key intersections but was constrained by a costly carrier-managed Private APN and static IP administration. By deploying Ericsson Cradlepoint R980 routers with an embedded eSIM module and Ericsson NetCloud Secure Connect, they replaced the Private APN with a zero-trust WAN overlay, reduced carrier spend by \$36,000 per year and enabled future flexibility to switch carrier data plans.

Key challenges



- ✓ Provide secure, reliable cellular WAN connectivity across 1600 traffic controllers
- ✓ High recurring Private APN fees (3,000/month;6,000/year) and limited flexibility to change carriers or data plans.
- ✓ Operational complexity from per-device static IP addressing required by the Private APN.

Solution



- ✓ Deployed Ericsson Cradlepoint R980 routers with embedded eSIM modules to enable future carrier data plan flexibility without the need to swap SIMs
- ✓ Implemented Ericsson NetCloud Secure Connect to create a zero-trust WAN overlay that replaces the Private APN, centralizes policy and addressing, and secures access to critical traffic systems
- ✓ Deployed redundant service gateways to ensure high availability for critical infrastructure.

Results

- **Rapid payback:** the deployment of Secure Connect as an alternative to their Private APN reduced costs by \$36,000 per year.
- **Eliminated lock in:** embedded eSIM module and removal of the Private APN allowed for future flexibility to take advantage of compelling data plans from alternative carriers without significant operational complexity.
- **Simplified operations:** eliminated the need for managing unique public static IP addresses per endpoint.
- **Stronger, modern security:** Secure Connect creates a zero-trust network service that clocks IP addresses, is default deny and governed by policy to align to modern security architectures.

Figure 1: Secure cellular WAN connectivity for traffic lights & cameras

