

## Tioga County, PA Emergency Services

### Migrating First Responders' Communications to a Packet Network

#### Challenge

Transition to next-generation PSN while maintaining service reliability and existing network assets.

#### Solution

RAD's Service Assured Access solution for TDM migration with advanced Carrier Ethernet capabilities.



Tioga County is located in North Central Pennsylvania. Its Department of Emergency Services' dispatch center covers 2,550 square miles (6,600 square km), primarily for Tioga and Potter Counties, but also areas in McKean, Bradford and Lycoming Counties. 26 fire and EMS services, and 26 police departments are handled by Dispatch.

Tioga County was looking to migrate from TDM to Ethernet technology and chose RAD's solution based on recommendations from MCM Consulting Group, Inc. (MCM) and Tessco, a leading wireless system integrator and a RAD partner. Tioga County had decided to create a dual network path based on an existing DS3 microwave system that provides voice and data services for first responders. Following several designs offered by RAD, Tioga County selected RAD's ETX-205A Carrier Ethernet demarcation devices to build protected Ethernet rings over the existing T3 radios, and the miniature MiRiCi-T3 smart SFP to deliver Ethernet traffic over TDM.



"Our purchase and installation of RAD's equipment was extremely easy – Plug & Play as it was set up for deployment by RAD."

David Cohick, ENP Director at Tioga County Emergency Services



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This solution allows both a county network and an IP radio network to be established. The county network connects alarms and IP cameras and their traffic backhauled to the 911 center from remote tower sites. The IP radio connection extends the dispatch system to remote tower sites to allow for IP control of land mobile radios.

In addition to the devices mentioned above, RAD's solution to Tioga County also included a RADcare service package. "Our purchase and installation of RAD's equipment was extremely easy – Plug & Play as it was set up for deployment by RAD," says David Cohick, ENP Director at Tioga County Emergency Services. "When a piece of equipment was damaged in shipping, a replacement unit was configured, shipped and installed in less than 48 hours. RAD provided great support in solving the issue," he continues.

RAD's Service Assured Access solutions are ideal for seamless migration to next-gen packet communications. In addition to legacy TDM compatibility, they feature best-of-breed Carrier Ethernet 2.0 capabilities, including superior traffic management and performance monitoring, as well as G.8032 Ethernet Ring Protection Switching (ERPS) to maximize resiliency and service availability.

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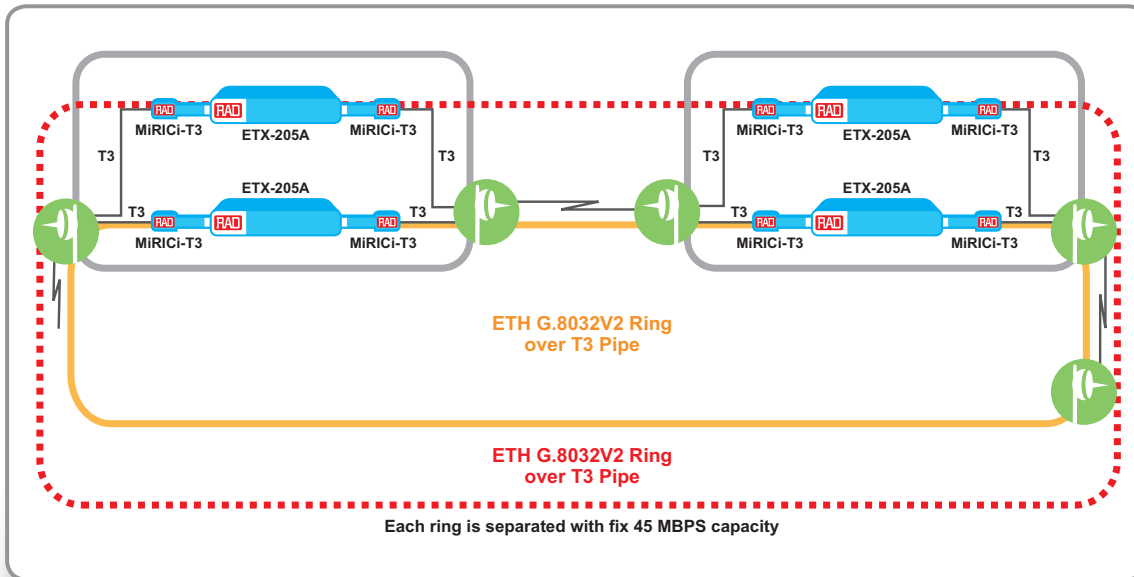
David Cohick, ENP Director at  
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### Features

- GFP encapsulation
- G.8032 Ethernet Ring Protection Switching (ERPS)
- Full Carrier Ethernet suite
- RADcare service

### Benefits

- Reliable, standards-based delivery of Ethernet traffic over T3
- Cost-optimized solution allows continued use of existing radios
- Ensure High Availability for mission-critical communications
- NBD delivery, Plug & Play installation



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