



# Case Study

## Voice and Data over Ethernet Completel, France

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### Challenge

To facilitate the provisioning of differentiated services over Ethernet to enterprise customers.

### Solution

RAD's ETX-102 and ETX-202 Ethernet Network Termination Units, intelligent demarcation devices that are owned and operated by the service provider but installed at the subscriber's premises.

### Features

- Extensive fault detection and diagnostic capabilities
- Remote monitoring and configuration
- Reliable delivery of Ethernet services end-to-end across the network
- Easy to install and supervise

### Benefits

- Diverse client needs are addressed
- Binding SLAs with guaranteed QoS over the entire service path
- Feature-rich options
- New value added services introduced over same physical link

## **RAD Enables French Alternative Operator to Deliver Differentiated Services over Ethernet to Enterprise Customers**

### ETX E-NTUs Provide Binding SLAs with Guaranteed QoS over Entire Service Path

Completel is the primary French telecommunications operator with a nationwide network dedicated to enterprise customers. With France's first Very High Rate alternative fiber optic network and its own nationwide unbundled DSL network, Completel is a specialist in offering network and telecom solutions – voice, data and convergence – to SMEs, corporations, the government and public sector, and operators and service providers.

Recently, Completel decided to deploy Ethernet access devices from RAD Data Communications to facilitate the provisioning of differentiated services over Ethernet to its enterprise customers across the country.

RAD's ETX-102 and ETX-202 Ethernet Network Termination Units (E-NTUs) are intelligent demarcation devices, owned and operated by the service provider, and installed at the subscriber's premises. They are used to extend and transport Fast Ethernet or Gigabit Ethernet traffic over fiber while providing extensive fault detection and diagnostic capabilities that allow the service provider to address diverse client needs and offer binding Service Level Agreements (SLAs) with guaranteed Quality-of-Service (QoS) over the entire service path.

"Given that Ethernet services are growing in complexity and becoming more diversified, Completel decided to deploy intelligent demarcation units to enable remote monitoring and configuration of those services to guarantee customer SLAs," explains Xavier Poinignon, Data Product Manager at Completel.

"Ethernet services are growing in complexity and becoming more diversified"

Xavier Poinignon,  
Data Product Manager at Completel

**RAD**

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## End-to-End Reliability

"Metro fiber operators today are providing their customers much more than just 'best effort' Ethernet access services," states Robert Leger, Sales Director at Connect Data, the local RAD partner that supplied Completel with the RAD solution. "RAD's EtherAccess® concept ensures reliable delivery of Ethernet services end-to-end across the network by engineering traffic at the formal hand-off to the customer," he adds. "Ethernet is now Completel's sole transport network protocol," he notes. "RAD's ETX E-NTUs are a perfect solution for delivering multiple voice and data valued added services over Ethernet."

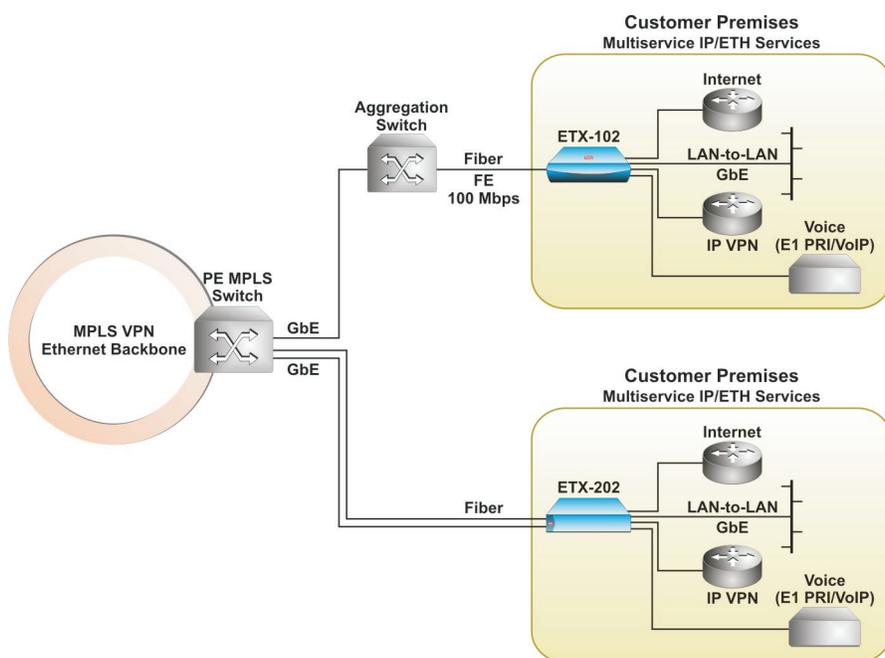
Completel's LAN-to-LAN data service has evolved into a feature-rich offering with options that have been introduced in response to customer demand. RAD's ETX line enables Completel to offer on the same physical link other value added services such as IP VPN, VoIP and Very High Rate Internet access with the same QoS guarantees it provides to LAN-to-LAN subscribers. The ETX units have proven themselves to be easy to install and supervise and are fully interoperable with Completel's backbone equipment.

## OAM Tools

"Ethernet access is one of our strategic markets, and, for that reason, RAD Data Communications has taken an industry-leading role in developing a full set of OAM (Operations, Administration and Maintenance) capabilities for packet switched networks," concludes Sammy Elalouf, the company's Director of Sales for Europe. "By incorporating these OAM tools in its EtherAccess solutions, RAD stands today at the forefront of efforts to turn Ethernet into a true carrier-class service."

"RAD's ETX E-NTUs are a perfect solution for delivering multiple voice and data valued added services over Ethernet."

Robert Leger,  
Sales Director, Connect Data



### Corporate Headquarters

RAD Data Communications Ltd.  
24 Raoul Wallenberg Street  
Tel Aviv 69719, Israel  
Tel: 972-3-6458181  
Fax: 972-3-6498250  
email: market@rad.com

### US Headquarters

RAD Data Communications Inc.  
900 Corporate Drive  
Mahwah, NJ 07430, USA  
Tel: (201) 529-1100  
Toll free: (800) 444-7234  
Tel: (201) 529-5777  
email: market@radusa.com

[www.rad.com](http://www.rad.com)



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