

Solution Note

Business Service Aggregation and Transmission over Fiber Optic Infrastructure

Typical Applications

- E1 Leased Lines
- Ethernet L2 VPN

Target Market

- Converged fixed and mobile operators

RAD Products Included

- Megaplex-4100 Next Generation Multiservice Access Node
- Optimux-108 Fiber Multiplexer

Summary description

The customer is a fixed and mobile operator that owns copper and fiber optic infrastructure, which it uses for last mile connectivity to its business customers, as well as for backhauling 2G and 3G base stations.

Its network is based on SDH and MPLS cores. A large number of central offices and co-location sites exist for accommodating aggregation devices, such as BSCs for 2G networks, DSLAMs and MSANs. In some cases the copper or fiber is aggregated at street cabinets.

RAD supplied a next generation multiservice access node (MSAN) solution, which enables the aggregation and termination of Ethernet and legacy traffic over fiber and designates each for transport over either the SDH or the Ethernet/MPLS edge devices.

This is a dedicated solution for enterprise business services.

Main benefits

- Leased lines replacement and extension over “dark” copper or fiber infrastructure
- Aggregation of different services to different core networks
- Future-proof solution supporting Carrier Ethernet OAM and guaranteed SLAs (Megaplex-4100 phase 3.1)
- Price-competitive



Detailed description

The operator was seeking to concentrate and aggregate Ethernet and leased lines services for enterprise customers.

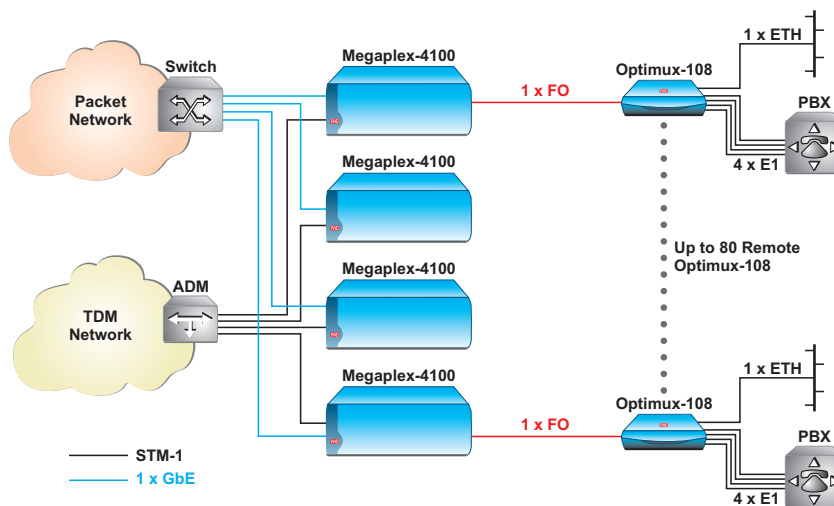
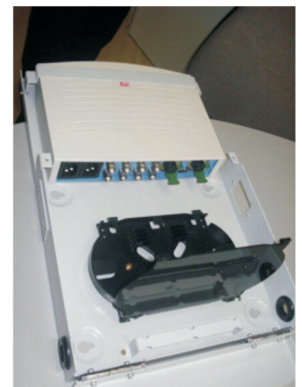
The Megaplex-4100 is used as an aggregation MSAN. It is equipped with Optimux-108-M modules and is installed in street cabinets or the carrier's central offices. Fiber infrastructure is deployed towards the customer premises. The Optimux-108 serves as a customer premises CPE, allowing the carrier to supply up to four E1s as leased lines, as well as Ethernet services, with up to 100Mbps of bandwidth.

The Megaplex-4100 separates the E1 leased lines from the Ethernet traffic and designates each traffic type for transport over a separate core network – STM-1 uplink to the SDH core and a Gigabit Ethernet uplink to the Ethernet/PSN core.

An additional requirement was for the Megaplex-4100 to be fit for installation in street cabinets located at the carrier's base station sites. RAD integrated, equipped and supplied the Megaplex-4100 in a specially designed cabinet, in accordance with the carrier's specifications.

The same was done with the Optimux-108 CPE. Further to the carrier's requirements, RAD equipped it with a special wall mount kit that included a fiber termination mount and a dedicated rack mount.

The solution is fully managed end-to-end using the RADview-SC/TDM Path Management Multiservice Access Platform. The RADview-EMS Carrier-Class Element Management System, enables provisioning and troubleshooting.



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