



Typical Users

- City governments
- School districts
- University MANs
- Health agencies
- Government agencies
- Enterprise campus environments

Typical Applications

- PBX Voice Trunking
- Centralized PSTN access
- Voice and data convergence

IPmux in Next Generation IP-based Metropolitan Area Networks

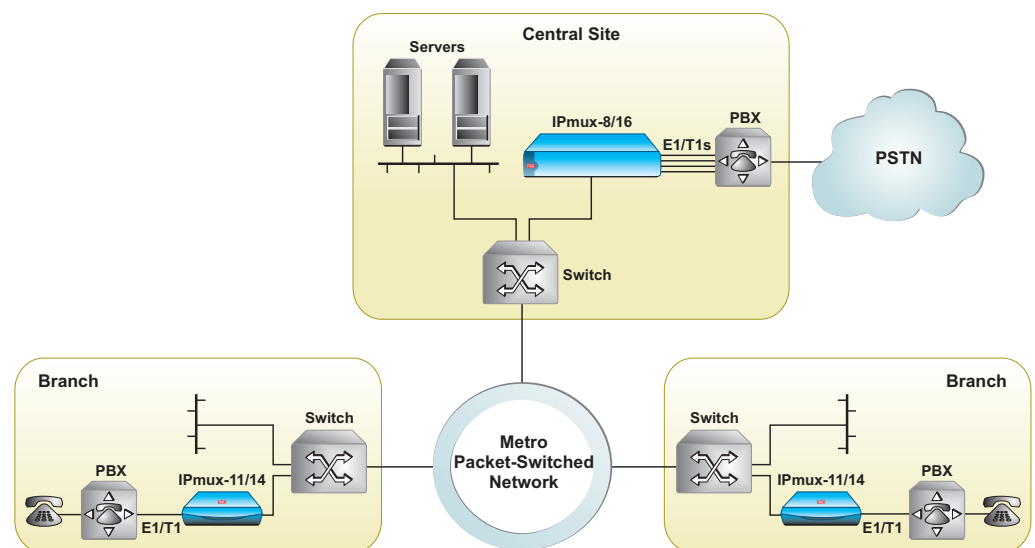
More and more local governments, educational institutions and multi-location enterprises are able to take advantage of low-cost Metropolitan Area Networks (MANs) for data connectivity between agencies, branches and institutions. In many cases these organizations are also paying for leased E1/T1 lines for voice trunking between locations.

Eliminate E1/T1 Leased Lines

Leasing E1 or T1 lines for PBX connectivity at each branch and office location can be very expensive. Institutions can save on leased line costs by centralizing PSTN access and emulating E1/T1 trunk connections between remote locations across the same low-cost, high-speed metro Ethernet that many organizations are already using for their data connectivity.

IPmux: Traditional Telephony over IP

RAD's IPmux™ TDMoIP™ Gateways convert E1/T1 voice and data streams into packets for transmission over IP and Ethernet-based networks. They connect each PBX in the IP network, for delivery of traditional voice communications over the same infrastructure that is used for data. Since the IPmux devices transport the information transparently, all the original PBX signaling and features are preserved, thereby offering seamless migration of traditional telephony to IP.



E1/T1 Circuit Extension over Metro Ethernet



Application Note

IPmux Family



What makes the IPmux especially useful in IP-based MANs?

Features	Benefits
Sends traditional voice over IP	<ul style="list-style-type: none">• Protects investments in existing and reliable TDM-based PBX systems• Supports all of existing PBX system's features, signaling and functionality• Eliminates point-to-point E1/T1 leased lines
Low latency (less than 2 msec)	<ul style="list-style-type: none">• Meets Quality of Service requirements
Supports E1/T1, IP and Ethernet interfaces	<ul style="list-style-type: none">• Standard interfaces• Flexible solution
Compact, plug-and-play unit	<ul style="list-style-type: none">• Low cost of ownership• Rapid installation

Disadvantages of alternative solutions

Alternative Solutions	Disadvantages
VoIP gateways	<ul style="list-style-type: none">• Long end-to-end delay (starting at 40 msec) causes echo, degrading voice quality• Supports only limited set of PBX features and signaling• Complex configuration• High cost of ownership



data communications

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