



# Case Study

## TDM Voice and Data over a Gigabit Ethernet Network Bengaluru International Airport, India



### Application

TDM voice and data over a Gigabit Ethernet campus network

### Challenge

- Transport TDM based services over a next generation packet-based network
- Low latency and delay when transporting voice services
- TDM-quality voice
- Transparency to different PBX protocols, features and standards
- Scalability and manageability

### Solution

RAD's IPmux family of TDMoIP pseudowire gateways

### Benefits

- Seamless transport of legacy TDM traffic
- Cost-effective solution that reduces capital expenses
- Low TCO

### Features

- Meets different port capacity requirements
- End-to-end provisioning
- Network monitoring

## Indian Airport Deploys RAD's IPmux TDMoIP® Pseudowire Gateways to Enable Multiple Service – Provider Access

India's Bengaluru International Airport (BIA), situated about 40 kilometers away from the country's third-most populous city, more commonly known abroad as Bangalore, had a unique requirement. Service providers and Internet Service Providers (ISPs) terminate their lines at the periphery of the terminal. End users throughout the airport can thus take advantage of a multiple service provider presence.

Given the market trend to migrate to Next Generation packet switched networks (PSNs), BIA opted to build a campus-wide fiber backbone. Separate fiber, copper, and coax infrastructure for such disparate systems, however, would have been prohibitively expensive. There are, moreover, distinct advantages in integrating divergent systems, such as centralized monitoring, as well as enhanced capability and productivity. So services, which, in addition to voice, also include data such as Internet, video, CCTV, alarms, trunk mobile radio, building management, physical security and intrusion detection systems, and SCADA, have to be transported seamlessly across the airport-wide Gigabit-Ethernet core infrastructure.

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Francis Rajan , BIA's head of ICT



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“If we had to deploy copper infrastructure, the cost to build and maintain it would have forced BIA to hook up with only one service provider,” explains Francis Rajan, BIA’s head of ICT. “If that were the case, then multiple telcos would not be able to set up their own points of presence and customers would not be able to choose their preferred service provider.”

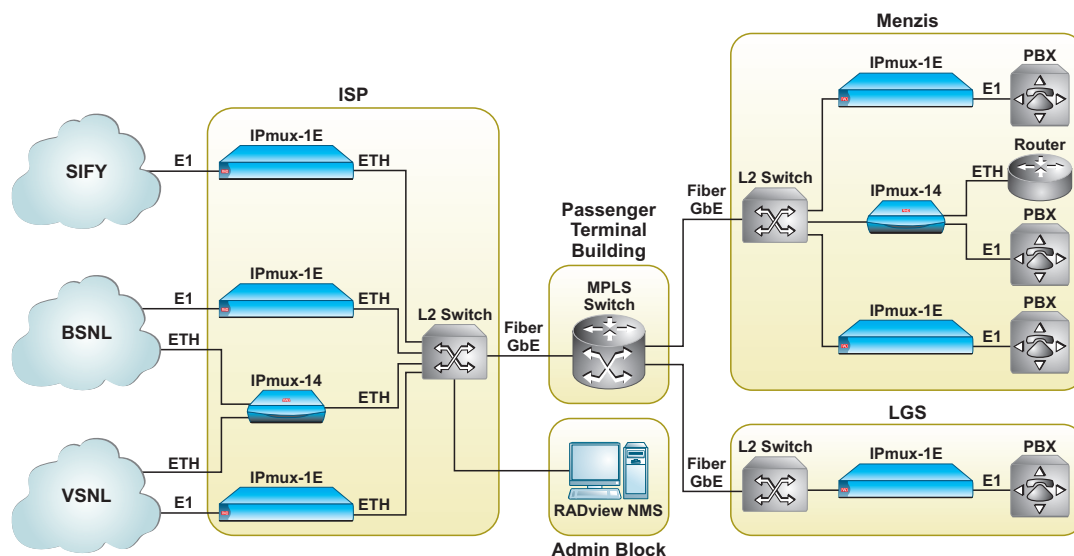
But having built a high-speed campus backbone, BIA now had to solve the problem of what to do about legacy voice and low speed services. They found that the most cost-effective answer is RAD’s TDMoIP pseudowire emulation technology. By deploying RAD’s IPmux family of TDMoIP access gateways, end users are freed from having to replace their legacy equipment, retrain staff or venture into VoIP for mission-critical voice applications. BIA benefits by solving the problem elegantly and at a lower total cost of ownership (TCO).

The one-port IPmux-1E and the larger IPmux-14 meet different port capacity requirements at the airport. In addition, RAD’s powerful RADview-SC/TDMoIP network management system performs end-to-end provisioning and network monitoring.

“RAD’s IPmux has reduced our expenses because it has freed us from having to build and maintain a parallel copper infrastructure,” Rajan concludes. “RAD has helped us offer a level playing field so that BIA and its customers can take advantage of a multiple service provider presence on the campus.”

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Francis Rajan , BIA’s head of ICT



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