

Voice and Data over a Single Ethernet/IP Backbone

Case Study



Voice and Data over a Single Ethernet/IP Backbone Tiscali France



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Anne-Lise Lorain, Voice Switching Engineer,
Network and Infrastructure Department, Tiscali France.

Challenge

Optimize the cost of long distance transport over an Ethernet/IP backbone while retaining existing TDM equipment.

Solution

RAD's IPmux-16 TDMoIP gateway, offering circuit extension over IP.

Benefits

TDMoIP enables IP networks to be utilized for telephony applications with the level of quality, reliability and functionality provided by TDM.

Tiscali Optimizes the Cost of Long Distance Services over a PSN

European ISP Uses RAD's TDMoIP® to Transport Voice and Data over Nationwide IP Backbone

To remain competitive in the telecoms market, Tiscali France, an Internet communications company that provides broadband and narrowband access for consumer and business applications, decided that it would have to optimize its infrastructure. The company maintained an SDH backbone for telephony traffic in addition to an Ethernet/IP backbone for Internet services. This IP backbone was expanded further still when Tiscali France acquired the Cable & Wireless nationwide transmission network, including 24 regional points-of-presence (POPs), a Metropolitan Area Network (MAN) in Paris, as well as value added service platforms.

“Now that we had a strong, nationwide Ethernet/IP backbone as a result of our recent acquisitions, we looked for a way to optimize the cost of long distance voice transport,” explains Anne-Lise Lorain, a voice switching engineer at the Network and Infrastructure Department of Tiscali France. A change in the telephony distribution network, however, which is based on Class 5 switches, was out of the question. Optimization would require retention of the existing TDM infrastructure while running it over IP. The change in backbone, therefore, would have to be made upstream from the switches and it would have to be transparent to the end-user. To accomplish this, Tiscali selected the IPmux-16 gateway from RAD Data Communications.

Evolution to IP Telephony

After trials that were held at the end of 2003, the migration project was completed at the beginning of 2004 when the final objectives of moving all the E1 lines to the IP backbone and retiring the SDH backbone were met. “The pace of deploying the IPmux-16 at Tiscali's telephone exchanges should grow in 2004 given the growth in VoIP voice service traffic,” states Dominique Buisson, who is in charge of business telecom solutions at Neotek, the RAD distributor that was the systems integrator for the project. In fact, in June, Tiscali France began to offer free, unlimited IP telephony to its

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Dominique Buisson, in charge of business telecom solutions at Neotek



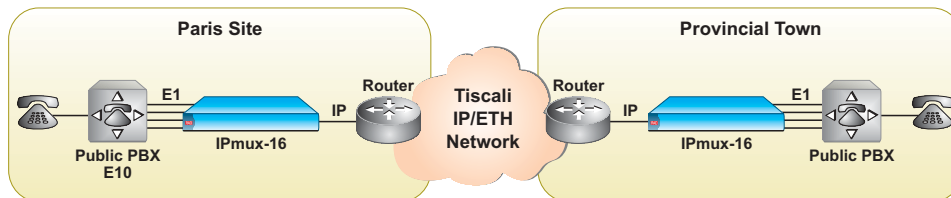
ADSL subscribers for all domestic calls to fixed-line phones. To facilitate the growth in VoIP traffic over its Ethernet/IP backbone, Tiscali connected its VoIP gateways to IPmux-16 multiplexers, which aggregate multiple E1 lines over a single IP uplink that is connected by an access router to the IP backbone. In this way, a subscriber using Tiscali's ADSL service can place a free call to any PSTN subscriber anywhere in France.

A Smooth Migration to an IP Backbone

The IPmux is based on RAD's patented TDM over IP (TDMoIP) technology, which allows legacy voice, data and sensitive signaling protocols to be transported transparently over IP, Ethernet and MPLS networks. Circuit extension over IP enables service providers and corporate customers to utilize their IP networks for telephony applications with the level of quality, reliability and functionality currently provided by TDM networks. This solution preserves all the familiar functions of existing equipment such as PBXs and class 4 and 5 switches. "RAD's IPmux-16 multiplexer offered an ideal solution given Tiscali's requirements," explains Neotek's Buisson. "Cost-effective, easy to deploy and simple to manage, the IPmux provides a transition to IP/Gigabit Ethernet networking while preserving existing TDM services."



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