

Telecommunication Provider Uses APCON INTELLAFLEX Aggregation Taps to Monitor Production VoIP Traffic



Case Study

A major telecommunications company maintains 17 regional data centers distributed around the United States. The company uses several Tektronix Geoprobe tools at each data center to monitor VoIP traffic passing through Juniper switches on 1Gbps fiber Ethernet links. Each data center is configured with fully redundant mirror networks – a production network and hot standby network.



- 17 regional data centers
- High volume of VoIP traffic
- INTELLAFLEX Aggregated Tap for in-line monitoring

This paper describes how the telecommunications company used APCON INTELLAFLEX technology to achieve 100% visibility of its VoIP traffic on both the production and hot standby networks.

Challenge – Monitor All Production VoIP Traffic

The challenge the company faced was to aggregate traffic from many VoIP switches as it traversed two parallel networks, and then to deliver an aggregated data stream to a series of Tektronix GeoProbe monitoring tools. At each location, the company needed to monitor between six and fifteen 1G Ethernet data links using a mix of copper and optical media.

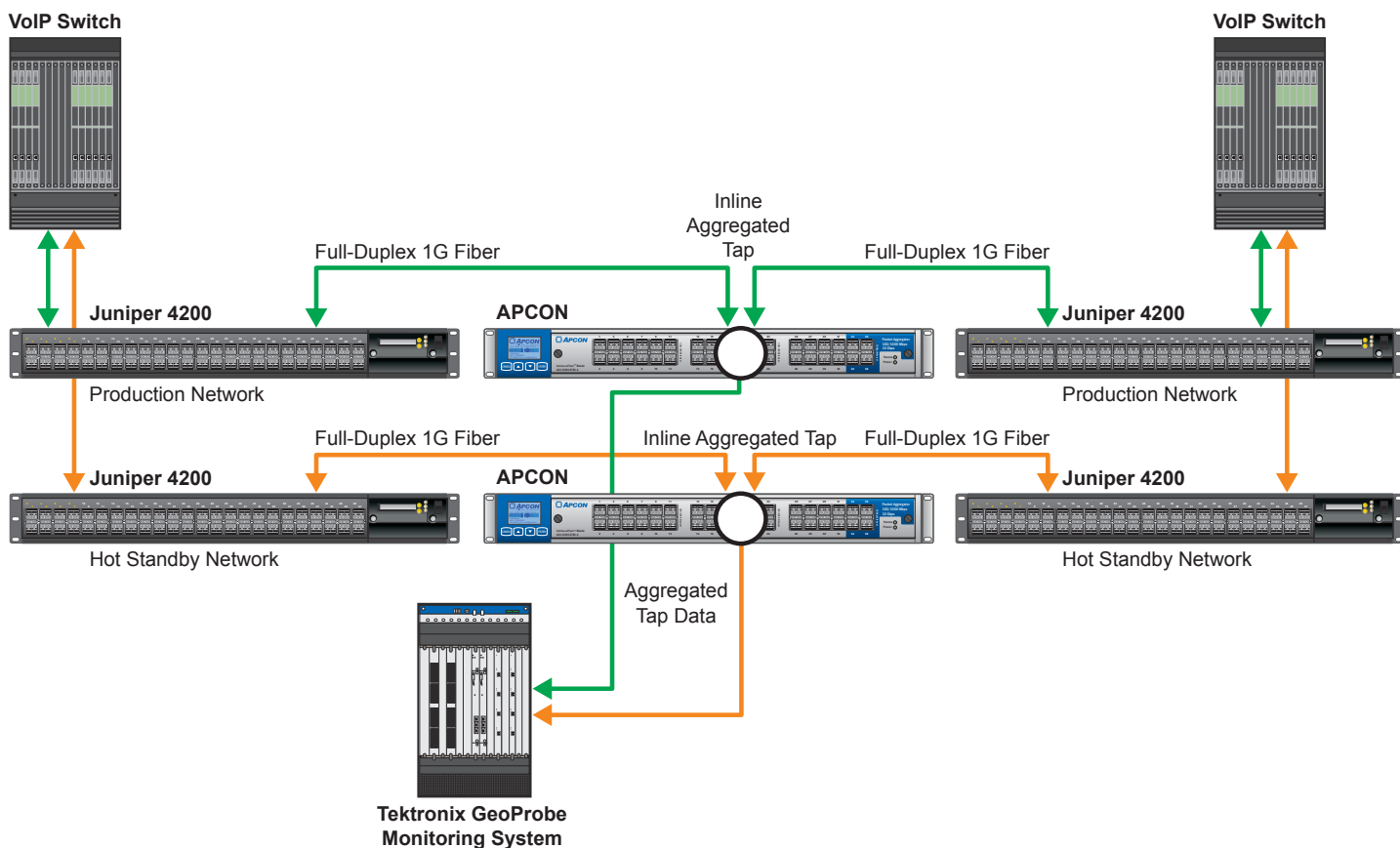
Implementing a solution using traditional taps would have been technically complex, cost-prohibitive, and difficult to manage. Such a solution would require 12 to 30 passive taps at each data center, with appropriate media interfaces and additional aggregation devices to consolidate data to the GeoProbe. The company turned to APCON for a solution that could be replicated at each regional data center at a lower cost.

The APCON Solution – Aggregated Tapping with INTELLAFLEX

APCON evaluated this company's data center architecture and proposed a solution that employs two identical 1RU INTELLAPATCH® Series 3000 chassis at each location. Each chassis is equipped with a 36-port 1G INTELLAFLEX blade populated with transceivers appropriate to the copper or fiber media in use at each data center. One INTELLAPATCH switch sits inline in the production network, and one in the hot standby network.

Each INTELLAPATCH switch is configured as a series of Aggregation Taps, with additional ports configured as outputs to send an aggregated simplex data stream to the GeoProbe tools. An aggregation tap uses two switch ports to create a pass-through link, as with a standard switch. A third port is configured as an output for the aggregated bi-directional traffic traversing the pass-through link.

This reduces the number of ports used to monitor a link on the GeoProbe from two to one, doubling each tool's link monitoring capacity.



Further, comprehensive packet filtering may be applied to any data stream at the egress port. In this case, the company chose to apply filters including RTP, SIP, M3UA, Diameter Plus and MCS to provide access to all Sonus GX9000 and BroadSoft VoIP traffic.

Finally, all 34 APCON switches deployed at locations scattered across North America can be provisioned, configured, managed, maintained, and upgraded by a single administrator working at a single workstation.

Results – Reliable VoIP Monitoring with INTELLAFLEX

These data centers are passing millions of minutes of live voice calls each day, all monitored using APCON INTELLAPATCH switches with INTELLAFLEX technology. Each pass-through link traversing the APCON switch operates at full line rate without dropping packets or becoming prone to Layer 1 and 2 transmission errors. APCON’s aggregated tap and packet aggregation switch solution made this deployment straightforward, affordable, scalable for future needs, and easy to manage.



Contact Us

Please email sales@apcon.com if you have any questions

ABOUT APCON

APCON develops innovative, scalable technology solutions to enhance network monitoring, support IT traffic analysis, and streamline IT network management and security. APCON is the industry leader for state-of-the-art IT data aggregation, filtering, and network switching products, as well as leading-edge management-

software support. Organizations in over 50 countries depend on APCON network infrastructure solutions. Customers include Global Fortune 500 companies, banks and financial services institutions, telecommunication service providers, government and military, and computer equipment manufacturers.