



Z H O N E

Central Texas Telephone Cooperative Upgrades with FiberSLAM

“FiberSLAM came pre-programmed so installation was complete in minutes. FiberSLAM provides network efficiencies across-the-board. The single rack unit saves us power and space while ensuring scalability for future services.”

Tommy Smith
Central Office Supervisor
Central Texas Telephone



Central Texas Telephone Cooperative (CTTC) is a 56 year-old company serving mostly rural communities with high quality voice and DSL data services in central Texas. It has about 7,500 access lines, both residential and business, along with servicing cellular networks within its 3,500 square mile operating area. As a progressive thinking company, Central Texas Telephone

looks for next generation technologies that enable its network to grow as well as migrate from ATM to IP.

The CTTC network is typical of most ILEC's, with a Fiber SONET backbone and copper feeder providing POTS and DSL services. They have begun migrating fiber to the cabinet, a project that will complete over the next 5 years. They also provide backhaul for cellular traffic from remote cell sites to their 17 exchanges. These factors combine to create more need for capacity in their exchange transport network

Recently, CTTC looked into replacing its old and costly OC12 SONET OLTMs serving cellular sites for backhaul with more efficient multiplexing equipment with IP capabilities, along with interfaces to support existing ATM traffic. Among the vendors evaluated was Zhone, with its newly released FiberSLAM 105 product, with the FiberSLAM being selected due to its superior features. The primary consideration for Central Texas Telephone was DS3 interfaces followed by FiberSLAM's support for both IP and ATM, and higher number of T1 ports. At the same time, capacity is increased from 622 Mbps. to 1 Gbps.



“Compared to our older OC12 SONET terminals, FiberSLAM 105 required less rack space, less power and less fiber to deliver more capabilities.”

“We were very impressed with the number of features FiberSLAM 105 offered in a 1U shelf,” comments Tommy Smith, Central Office Supervisor for Central Texas Telephone Cooperative. “Compared to our older OC12 SONET terminals, FiberSLAM 105 required less rack space, less power and less fiber to deliver more capabilities.” Tommy also noted that FiberSLAM 105 uses dual Gigabit Ethernet uplinks, providing much more bandwidth than SONET OC12 for future capacity expansion.

CTTC agreed to become one of several Zhone beta sites for network deployment of FiberSLAM 105. Although a new product, Central Texas Telephone was well aware of Zhone’s long track record in Optical transport with its GigaMux product line and had no reservations about deploying FiberSLAM 105.

Initial deployment was in a cellular backhaul application using FiberSLAM 105 in a back to back application as a replacement for now-retired OC12 terminals. The replacement also reduced the number of fibers needed from 4 to 2, while increasing capacity. “Installation was a breeze.” Tommy Smith notes. “We installed it in the rack, powered it and did a small amount of cabling and it was ready to go. It really requires no management.”

With the success in using FiberSLAM 105 for cellular backhaul, CTTC is now beginning to use it to replace older SONET terminal equipment in its backbone network. The first location, between two exchanges, replaces older FMT150 SONET terminals. At the same time older equipment is retired, network capacity is increased considerably through the use of Gigabit Ethernet uplinks in lieu of lower rate SONET.

(See Figure 1.)



CTTC Customer Care Center in Goldthwaite, TX

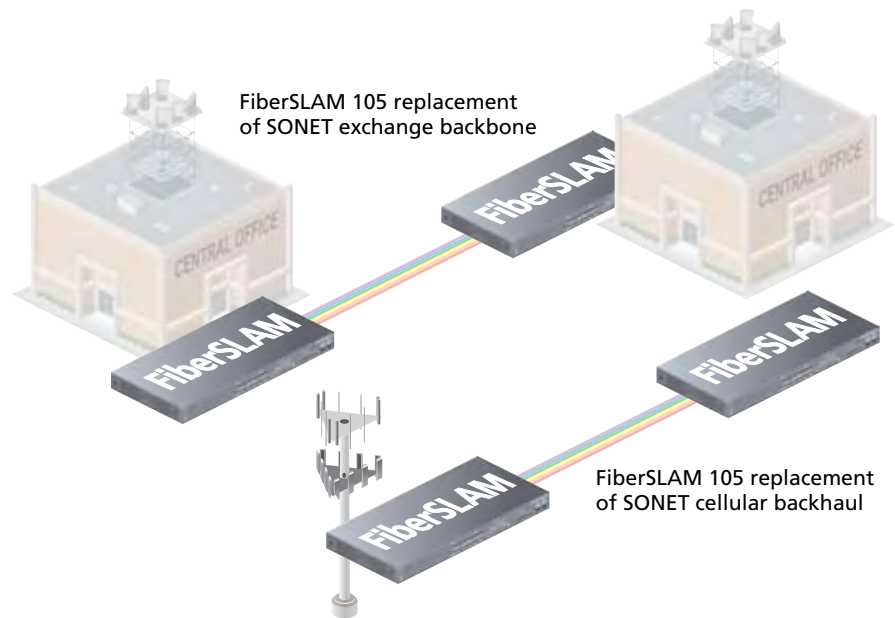


Figure 1: Central Texas Telephone Cooperative FiberSLAM 105 applications

Tommy Smith also notes that support from Zhone has been excellent, even in their rural market. He notes that Zhone’s field service personnel “Even gave us their home phone numbers and told us to call any time we needed anything. Thus far, this hasn’t been necessary with the FiberSLAM 105 at all.”

In summary, Central Texas Telephone chose FiberSLAM 105 because it offered a great deal of capability in a small 1U form factor. Having dual Gigabit uplinks, with up to 16 T1/E1, 3 DS3, and 2 10/100 base T interfaces makes it a highly featured product in a compact package. FiberSLAM is literally pre-programmed for easy turn up, and requires little power. Together, FiberSLAM results in on-going OpEx savings. And, as CTTC replaces some of the SONET backbone between their 17 exchanges with FiberSLAM, capacity in the network will be greatly expanded to meet future service demands.



Zhone Technologies, Inc.
@ Zhone Way
7001 Oakport Street
Oakland, CA 94621
510.777.7000 Tel.
www.zhone.com

For more information about Zhone and its products, please visit the Zhone Web site at www.zhone.com or e-mail info@zhone.com

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CTTC_CS_0607