

CALIX REACHES 100-CUSTOMER MILESTONE FOR E7 PLATFORM

More than 100 service providers have now deployed the E7 Ethernet Service Access Platform that FTTH equipment vendor Calix began shipping in December 2009. Calix says this is the fastest deployment rate for any of its service platforms; more than 20 percent of its fiber access customers are now using the new platform.

The E7, which was architected to address the challenges of an all-video world, is focused entirely on fiber-based Ethernet services, both GPON and active Ethernet. Geoff Burke, marketing director at Calix, says the E7 supports "revolutionary" leaps to next-generation services, as opposed to the "evolutionary" approach enabled by Calix' flagship C7 platform, which supports both legacy services and next-generation services.

Independent telcos, municipalities, international carriers, cable operators and competitive local exchange carriers have all adopted the new E7 platform. Despite their diversity, Calix says, they share a common goal of bringing fiber-based services to market quickly while managing the services efficiently and accommodating future capacity growth.

FIBER ON A SMALL SCALE

Burke explains that service providers have chosen the E7 as a solution in four different scenarios:

First, the scalability of the E7 allows providers to deliver advanced, fiber-based services in small areas. (The building block of the E7 is a one-rack-unit, two-slot chassis.) Smaller providers choose the E7 for rural exchanges in dire need of upgrading, in which a rip-and-replace strategy makes more sense than an evolutionary transition. The broadband stimulus program has provided funding for many buildouts of this type; nearly all the Calix customers that have been awarded stimulus grants and loans have selected the E7 as their key platform.

One of these customers, Mike George, president and general manager of **Northeast Louisiana Telephone Company**, says, "As a broadband stimulus award winner, it was important for us to ensure that we were deploying a platform that was aligned with the long-term strategic needs of our network. The E7 provides us with the peace of mind that we can utilize the right technology to address emerging applications in our network, while providing us an operational model that allows us to scale after broadband stimulus projects are over."

Although most larger providers, such as Tier 2 telcos, are not deploying the E7 widely because they are retaining their existing last-mile copper, nearly all of them have niche locations where they want to deploy high-end services, and the E7's scalability allows them to do this on a pay-as-you-grow basis.

ACTIVE ETHERNET ON A LARGE SCALE

A second scenario in which the E7 is gaining traction is large-scale deployment of active Ethernet services. "It takes a unique set of economic models and drivers to be able to deliver active Ethernet to tens of thousands of users," Burke comments. "But if you're dropping 1 Gbps to every home in the community, the platform is well suited to that – every port has symmetrical gigabit services, and you need that capacity to scale and manage that demand and traffic."

A good example of this scenario is **South Slope Cooperative Communications Company**, Iowa's largest independent telco, which selected the E7 along with Calix 700GX/700GE ONTs to bring active Ethernet services to 14,000 homes and businesses. The company plans to replace its aging copper infrastructure with a fiber access network capable of delivering 1 Gbps to every premises. This five-year, \$60 million project will leverage fiber to deliver IPTV, symmetrical residential and business data services and reliable VoIP. J.R. Brumley, South Slope's CEO, says, "We could already see on the horizon a need for 50 to 100 Mbps per home, and realized that if we didn't aim higher, we'd be going through this same exercise again in a few years' time."

URBAN AND INTERNATIONAL BUSINESS SERVICES

A third common use for the E7 is to provide business services in urban areas. "Even large MSOs look at it as an ideal vehicle for urban business services," Burke says. He adds, "In the traditional model of an ATM environment with T1 lines, if you wanted more bandwidth, you placed an order for more T1 lines and another modem. But if you are ... a competitive exchange carrier addressing that need in an urban area, and you come in with a less expensive model like Ethernet, you can emulate that same service but provide a full Gbps. Or you can segment the bandwidth and [customers] can provision it or turn the speeds up and down themselves, which gives you an enormous economic advantage over the incumbent."

Finally, a number of Latin American and Caribbean service providers have selected the E7 because it is optimized for international standards. Its form factor, its ability to allow access from the front and its support of E1 services are all appealing to international operators.

Transtelco, an innovative operator serving businesses throughout northern Mexico and cities along both sides of the U.S.-Mexico border, is an example of an international provider's selecting the E7 platform. Headquartered in Ciudad Juarez, Chihuahua, Mexico, Transtelco sees wide fiber deployment as key to its future. Targeting companies that do business across the

border, Transtelco will use both GPON and point-to-point Ethernet technologies on the E7 to support E1, T1, GigE and a variety of Metro Ethernet Forum services.

"As a [communications service provider] competing against a large incumbent operator, it is crucial for Trans-

telco to differentiate itself and deliver the most advanced services efficiently and effectively," says Manuel Marin, vice president of engineering and development at Transtelco. "Fiber to the premises provides us with the optimal delivery vehicle for addressing our customers' demands."