

CASE STUDY

ETC Simplifies Network with Intelligent Access EDGE and Reduces OPEX with AANG



COMPANY

Ellijay Telephone Company (ETC)

Year Founded

1904

COMPANY TYPE

Diversified Communications Company

WEBSITE

www.etcnow.com

LOCATION

Ellijay, Georgia

SERVICES

Data, Voice, Video, Business, Managed Services

SUBSCRIBERS

38,000 residents and businesses

THE CHALLENGE

Ellijay Telephone Company (ETC) offers broadband voice, video, and data services to over 38,000 Northern Georgia and Tennessee subscribers. In a market with numerous regional competitors offering commodity-based high-speed internet, ETC differentiates by expanding its services to include multi-gig broadband, value-added services, and community services.

However, ETC has faced significant challenges with its hybrid fiber coax (HFC) plant, which has high maintenance and operational costs, consumes a lot of power, and limits scalability and cost-effective support for new market territories. The current network's flat Layer 2 architecture requires constant maintenance and upkeep, leading to outages and making it difficult to scale up efficiently to meet subscriber demands. Additionally, ETC uses multi-netting to manage IP address pools on a spreadsheet. This process is manual, time-consuming, and error-prone—and continued network growth has stranded valuable IPv4 addresses. To compete, expand services, grow into new markets, and improve the subscriber experience, ETC sought a network solution that accelerates the time to market and delivers operational efficiency.

THE SOLUTION

ETC selected a comprehensive broadband access network solution to achieve its objectives faster. The solution includes the Intelligent Access EDGE E9-2 modular, stackable form factor, and the E7-2 intelligent modular systems powered by AXOS network innovation OS. The solution simplifies the network by consolidating and moving service routing, subscriber management, and subscriber service delivery closer to the subscriber in a highly resilient Layer 3 transport and aggregation network. This allows ETC to migrate off the existing Layer 2 flat network. The best part is that the solution can easily integrate into ETC's existing operating environment because of the SDN interface. This interface supports open APIs that enable ETC to abstract

“As ETC continues to expand into new territories, we differentiate by delivering customer-centric subscriber experiences. To grow quickly and cost-effectively, the Calix solution provides a simplified, cookie-cutter approach to network deployment, making it easier for our team to create incredible subscriber experiences leveraging the ETC brand.”

- Frankie Rigdon, Vice President of Operations

service and hardware layer from the underlying technology and hardware, allowing them to integrate with their BSS/OSS environment quickly. As a result, the project timeline accelerated, and subscribers seamlessly switched to the new network.

Moreover, the solution offers ETC deployment flexibility to connect subscribers cost-effectively while leveraging network and workflow automation to turn up services quickly. ETC also deployed automated access network gateway (AANG) functionality to automate IP address management. AANG boosts productivity by saving time and effort and allows ETC to fully utilize existing IPv4 address pool assets—eliminating the need to purchase more IP address space.

THE RESULTS

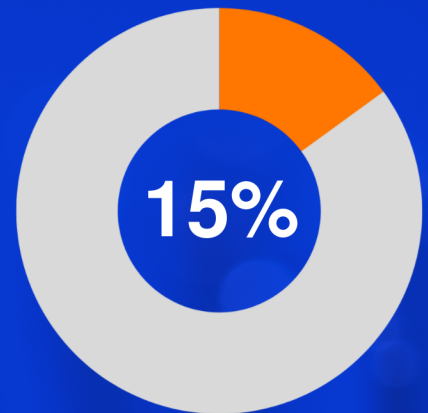
The new simplified and modernized network delivers significant benefits. First, ETC migrated HFC cable plant to a simplified Intelligent Access EDGE XGS-PON network. As ETC expands its service offerings, the Calix Intelligent Access EDGE E7-2 and E9-2 systems—powered by the network innovation operating system AXOS—provide a simplified approach. Migrating from a flat Layer 2 network to a resilient, highly scalable, consolidated network architecture enables ETC to optimize network performance as the network grows while eliminating costly outside plant maintenance activities. This approach reduced unnecessary truck rolls by over 15 percent, mitigated network outages, and removed capacity limitations.

Secondly, ETC reduced costs by \$900,000 with automated IP address management. By implementing automated access network gateway (AANG) functionality, ETC reduced project costs by decreasing IPv4 management overhead, making resources available to focus on growth, reducing manual errors, and freeing up stranded IPv4 addresses. This enabled more efficient use of existing IP addresses and eliminated the need to purchase additional subnets. Moreover, ETC has deferred the deployment of a carrier-grade NAT (CGNAT) solution, eliminating the need to purchase additional IP address space—and instead, investing back into creating exceptional subscriber experiences.

Finally, ETC accelerated time to market. The deployment of a simplified network using the E9-2 aggregation services manager—and consolidating and moving service-enabling functions closer to the subscriber—has made it easy for ETC to expand into new markets. It's as simple as adding another E9-2 in the desired location. This provides access to the same global IP address repository and Layer 3 domain, making it easier to connect new subscribers.

To find out more about significant cost savings using AANG, download our solution brief.

RESULTS



reduction in unnecessary truck rolls

\$900k

cost reduction with automated IP address management using AANG