ReadiTech Doubles Down with Calix 10G-PON Network, Bets Big for the Future

CHALLENGE

Dickey Rural Networks (DRN) traces its roots back to 1950 when the Dickey Rural Telephone Cooperative was founded to bring telephony services to rural southeastern areas of North Dakota[2]. Today it offers telecoms, broadband internet, and TV services under the DRN ReadiTech brand, serving both business and residential customers. Its footprint spans 19 telephone exchanges across nine different counties, seven in southeastern North Dakota and two more in northern South Dakota.

In 2012, ReadiTech became the first broadband service provider (BSP) in North Dakota— and one of the first in the US—to cover its entire 5,000-square mile territory with fiber-to-the-home (FTTH). It is proud of its reputation as a technology innovator.

Historically a rural provider, ReadiTech wanted to capitalize on its infrastructure investments by expanding its footprint into more urban areas with an upgraded service offering. To effectively compete with rival providers in these new territories, ReadiTech needed to upgrade its fiber network to XGS-PON to offer next-generation services delivering 10-Gigabit speeds—and roll out these new service offerings as quickly as possible.

The ability to offer ultra-high-speed broadband is set to become a key differentiator for BSPs in an era that has seen bandwidth demands rise rapidly as a result of the increase in remote working and greater use of high-bandwidth home entertainment services. In a recent Calix survey, approximately half of the respondents said that the COVID-19 pandemic had prompted them to accelerate plans to deploy 10G PON[3].

At the same time, ReadiTech needed to reduce network complexity and operational costs, while ensuring that its new network would be sufficiently flexible and future-proofed to support new capabilities for the foreseeable future.

THE SOLUTION

Building on its long-standing partnership with Calix, in 2018[4], ReadiTech upgraded its GPON network to run on the award-winning Calix Network Innovation Platform (AXOS®). This was part of a strategy to simplify its network operations and accelerate the rollout of new generation technologies and services.

In 2021 it worked with Calix again to overbuild its GPON network with XGS-PON using

COMPANY
DRN ReadiTech

WEBSITE
https://readitech.com/

LOCATION
Ellendale, North Dakota

SERVICES
Internet, telecoms, TV/video, IT services

SUBSCRIBERS
11,000[1]

the power of the software-defined Network Innovation Platform and the Intelligent Access EDGE solution. This upgrade allowed ReadiTech to deliver 10-Gigabit symmetrical broadband speeds, enabling it to go to market with one of the fastest broadband offerings in the entire state.

The Network Innovation Platform offers a revolutionary way for BSPs to operate their access network and accelerate their business transformation. It enables a complete decoupling of the software and hardware elements of the network, dramatically simplifying the network architecture and allowing it to be easily automated and scaled. It also provides the high-density aggregation and transport flexibility to fully support the provisioning of services with 10-Gigabit speeds. Thanks to its modular architecture and common service model, the Network Innovation Platform is able to deliver 'Always On' connectivity with zero downtime, even during service upgrades[5].

On the hardware side, ReadiTech's new XGS-PON network uses the AXOS E7-2® Intelligent Modular System in a cabinet-based solution, in conjunction with the AXOS Services Management Connector (SMx). This combination allows ReadiTech's network operations and field teams to seamlessly provision new subscriber services from minutes to seconds, dramatically improving operational efficiencies.

Meanwhile, the use of the AXOS Diagnostics Toolbox allows ReadiTech to shorten resolution times while proactively addressing network or service-related problems simply and quickly. This simulates the effect of having a technician on-site, enabling real-time troubleshooting over the phone and avoiding the need to initiate a truck roll. Using the Network Innovation Platform, BSPs can utilize this toolbox on any of the AXOS E-Series access systems.

In the customer premises, ReadiTech offers the ultimate Wi-Fi experience via the Calix Revenue EDGE solution, including the GigaSpire® BLAST family of systems. Subscribers can enjoy lightning-fast Wi-Fi 6 connectivity for home working, remote learning, video and music streaming, and more. Subscribers can also take advantage of value-added EDGE Suites such as home network security and parental controls via the CommandIQ® mobile app[6]. Meanwhile, Calix Support Cloud gives ReadiTech full visibility and control of its customers' home network experience, enabling it to simplify customer care and further reduce trouble tickets and unnecessary truck rolls.

THE RESULTS

ReadiTech has leapfrogged many of its competitors by offering 10-Gigabit speeds direct to business and residential premises—the first provider to do so in many of the markets in which it operates. Despite rapidly increasing data traffic on its network, investing in increased capacity has enabled ReadiTech to remain comfortably ahead of bandwidth demands.

By delivering consistent service models and automated workflows via the Network Innovation Platform, ReadiTech is able to simplify operational tasks, build end-to-end orchestration and management, and integrate workflows to further reduce operating expenses. It understood the need to build a flexible network infrastructure—one that will support future applications and technologies without the need for costly upgrades or impacts to subscriber services further down the line. The Network Innovation Platform achieves this through its

"We are ramping the service up to 10G, ensuring we remain well ahead of subscriber demand and already anticipating our next step of delivering an unmatched experience that capitalizes on our network investment. Calix has been a phenomenal partner since the beginning and will continue to be important to our success going forward."

Kent Schimke, CEO and General Manager, DRN

The Network Innovation Platform achieves this through its architecture of software modules that operate on top of a unique hardware abstraction layer that preserves software independence from the underlying hardware.

architecture of software modules that operate on top of a unique hardware abstraction layer that preserves software independence from the underlying hardware. This offers BSPs like ReadiTech a path to a simplified, intelligent, unified access network that can accelerate time-to-market and time-to-revenue, eliminate service disruptions, and reduce total cost of ownership.

In the premises, the combination of CommandIQ and Calix Support Cloud was able to drive a 64 percent reduction in first call resolution, a 46 percent reduction in truck rolls and a 66 percent reduction in support costs[7]. This served to significantly improve the subscriber experience.

In summary, by investing in the Intelligent Access EDGE solution powered by the Network Innovation Platform, for its network upgrade, ReadiTech has been able to jump to 10G PON ahead of its challengers. It is now poised to target new markets with an advanced broadband offering that will allow it to rapidly deploy next-generation XGS-based services, unlock new incremental revenue streams, and acquire subscribers in an accelerated fashion.

ABOUT CALIX

Calix, Inc. (NYSE: CALX) – Calix cloud and software platforms enable service providers of all types and sizes to innovate and transform. Our customers utilize the real-time data and insights from Calix platforms to simplify their businesses and deliver experiences that excite their subscribers. The resulting growth in subscriber acquisition, loyalty, and revenue creates more value for their businesses and communities. This is the Calix mission; to enable broadband service providers of all sizes to simplify, excite, and grow. Follow us on LinkedIn.

1 https://www.drtel.com/media/1829/equal-upload-download-speeds-drn-readitech-coop.pdf

2 https://www.drtel.com/about-us

3 https://www.calix.com/blog/2020/07--july-/sometimes-the-future-shouldnt-wait.html

4 https://www.calix.com/press-release/2018/11--november-/dickey-rural-networks-dramatically-simplifies-their-operations-a.html

5 https://www.calix.com/press-release/2021/05--may-/readitech-is-storming-across-the-great-plains--deploying-10g-serv.html

5 https://www.calix.com/press-release/2021/02--february-/calix-delivers-the-world-s-only-always-on-network-platform--elim.html

6 https://www.calix.com/platforms/exos/exos-systems/calix-smart-home-app.html

7 https://www.calix.com/platforms/calix_cloud/support-cloud.html