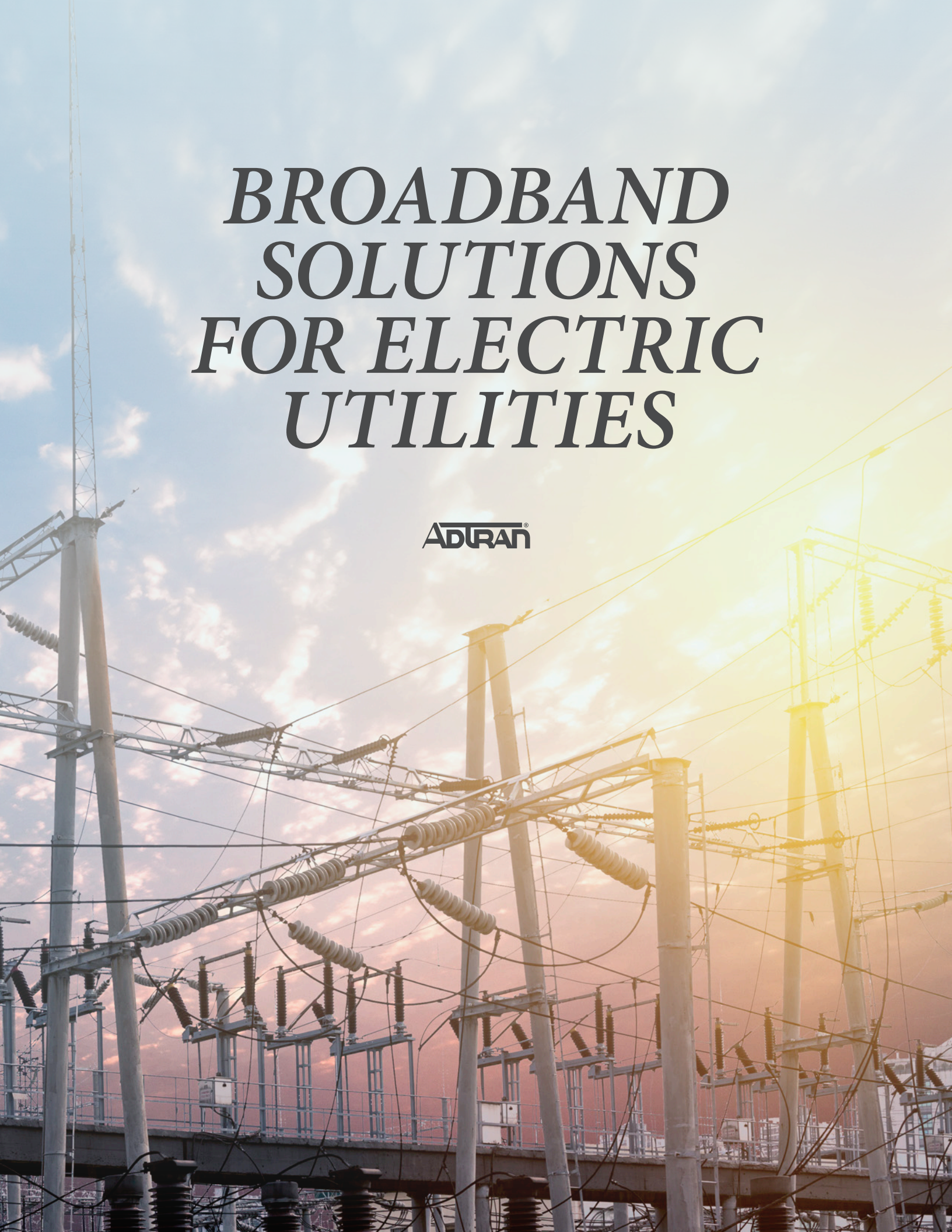
BROADBAND SOLUTIONS FOR ELECTRIC UTILITIES

ADTRAN®



BROADBAND TRANSFORMS COMMUNITIES

ADTRAN enables electric utilities to empower their communities through broadband, improving quality of life and generating immeasurable gains.

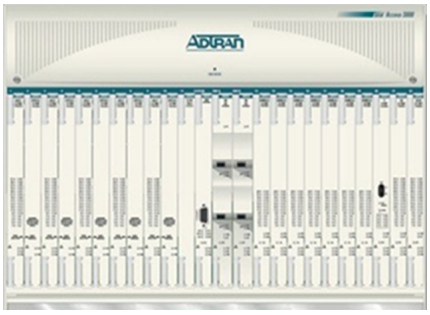
Drivers for Gigabit Communities:

- **Education**
- **Business and Job Growth**
- **Improved Healthcare**
- **Civic Life**
- **Connected Homes**
- **Retail Services**

THE POWER OF FIBER NETWORKS

Fiber to the Premises access offers the optimal path for broadband network builds by electric utilities, and ADTRAN offers the most comprehensive broadband access portfolio on the market, providing lowest cost of ownership and highest service density. Our unique approach is underpinned by broadband access innovation that simplifies high capacity services delivery. By working with ADTRAN to deploy a Gigabit Passive Optical Network (GPON), utilities can implement and maintain fiber infrastructure with complete business visibility and simplicity in the delivery of broadband services with limitless bandwidth.

ADTRAN's industry-leading Total Access 5000 series Optical Line Terminal (OLT) is an ultra-flexible, high-capacity, deep fiber solutions that works seamlessly with a range of our robust Optical Network Terminals (ONTs), the service delivery equipment on a customer's premises, to provide an end-to-end GPON deployment strategy that perfectly aligns with the needs of utilities.



Total Access 5000

- 9 RU, 23-inch brackets
- System Controller Module slot
- Two redundant Switch Module slots
- Twenty-one Access Module slots

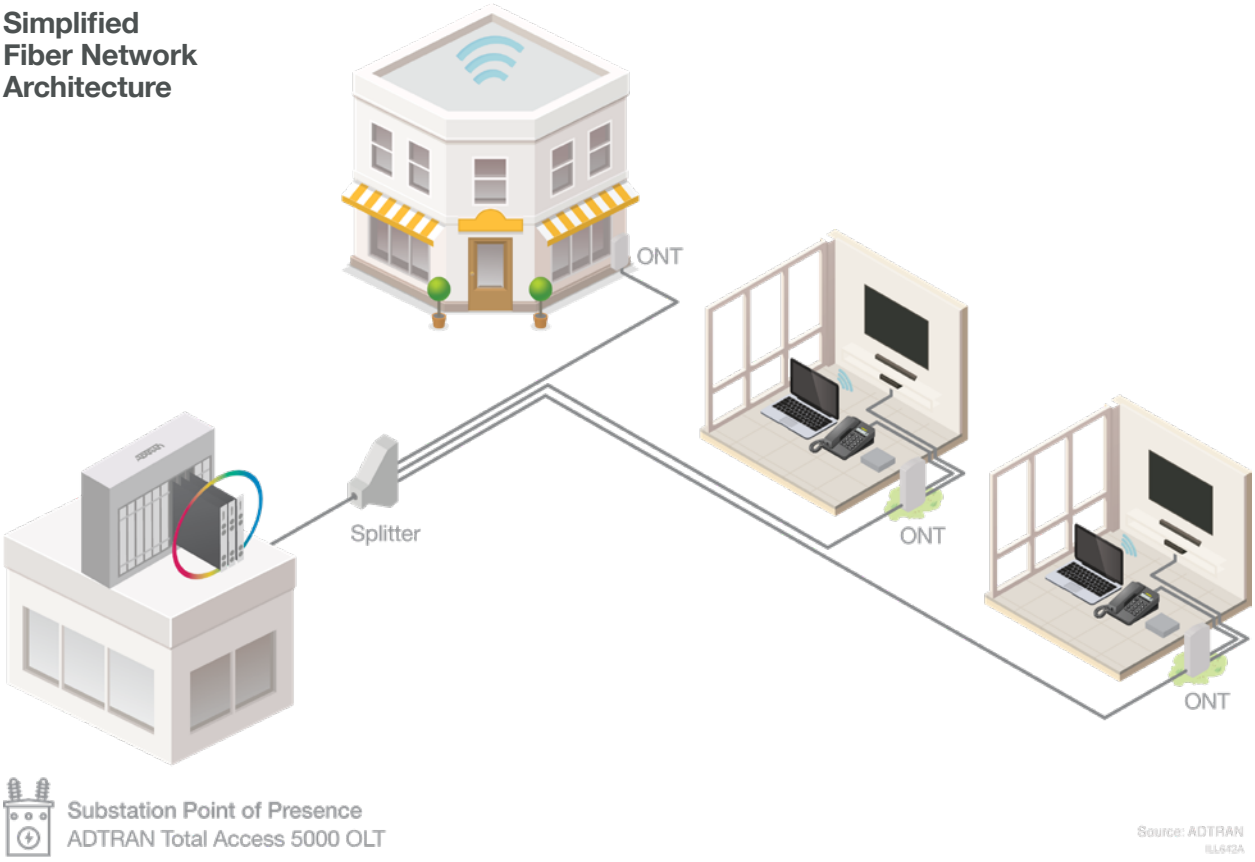
Total Access 5006

- 5 RU, 19-inch brackets
- System Controller Module slot
- Two redundant Switch Module slots
- Six Access Module slots

Total Access 5004

- 2 RU, 19-inch brackets
- Two redundant Management and
- Switch Module slots
- Four Access Module slots

Simplified Fiber Network Architecture



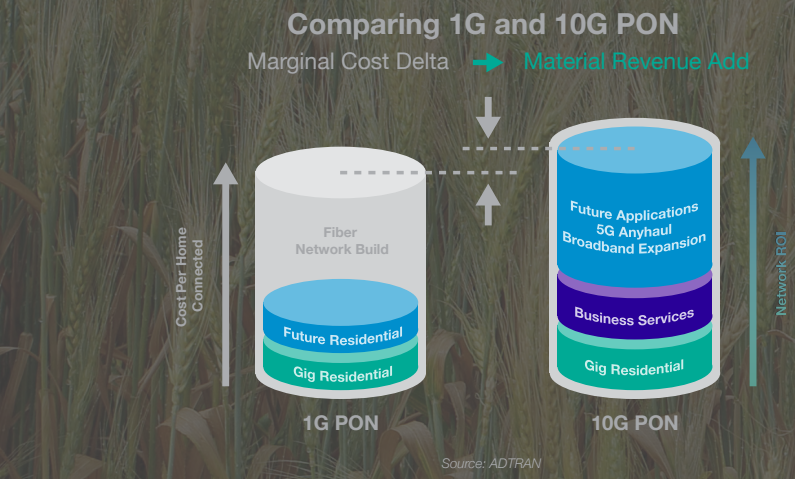
GPON networks employ a passive split of the wavelength between the OLT and ONT, usually 1:32 or 1:64 way splits, so that all ONTs on the fiber can utilize it.

GROWING YOUR NETWORK

Utilities understand the need to ensure today's networks will scale for tomorrow's demands, so when examining fiber network planning, bridging the gap to next-generation 10 Gigabit network infrastructures is an important consideration.

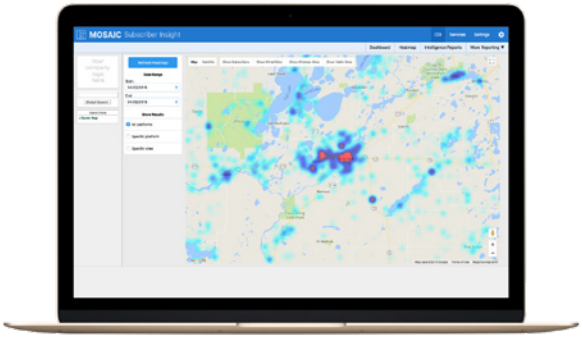
Today's FTTP networks are under tremendous strain as high-bandwidth applications continue to grow and consume capacity. As many utilities become communications service providers, they'll need to identify the right next-generation access strategies to ensure a competitive network today can transition to a future network that addresses expansions in residential and business services as well as other applications.

ADTRAN is a recognized leader in 10 Gigabit Passive Optical Network (10G PON) architecture and our solutions can effortlessly and incrementally unlock additional network capacity as needed, maximizing service flexibility with minimal cost.



Source: ADTRAN

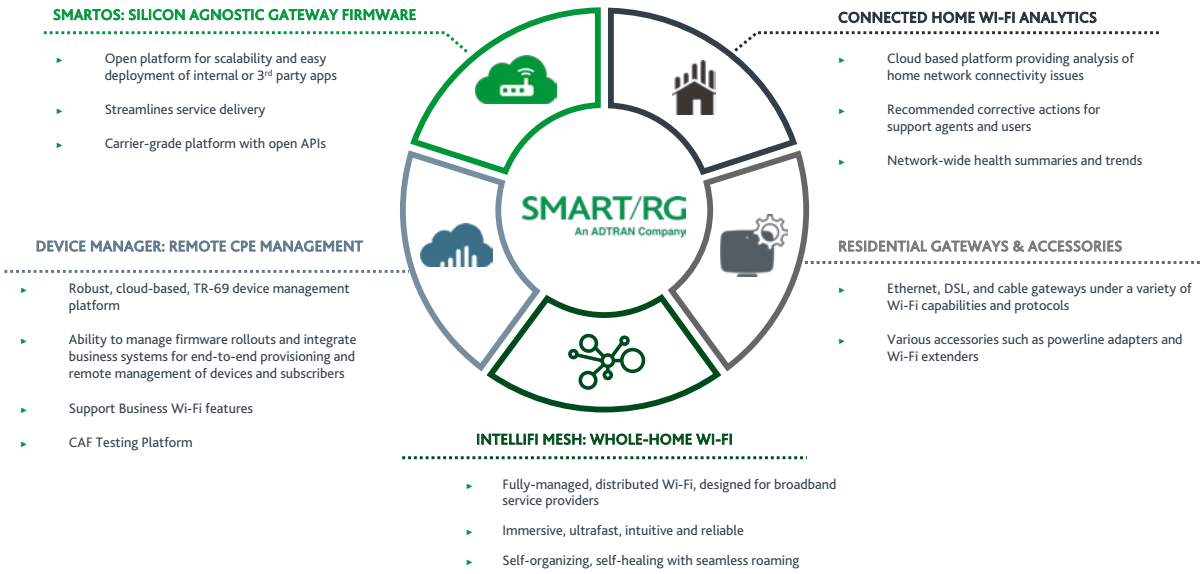
SUBSCRIBER EXPERIENCE MATTERS



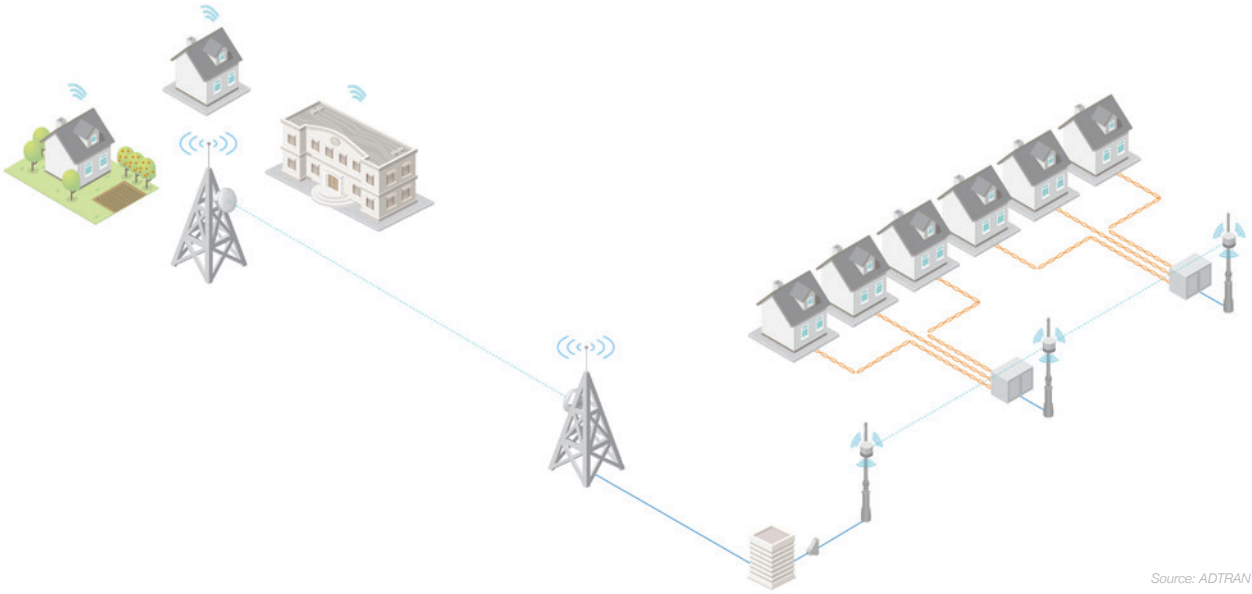
As utilities become communications service providers, they need to plan upfront integration of network and subscriber information, to ensure their customers' quality of service. SmartRG, an ADTRAN company, offers the products and services to provide robust Wi-Fi solutions by delivering the power of the broadband access network to the consumer's home and distributing it anywhere and everywhere.

SmartRG solutions enable service providers to fully realize the opportunity of residential broadband through an integrated suite of products, applications and tools. SmartRG offers fully integrated service delivery Residential Gateways that optimize the subscriber experience while reducing complexity in the home network. These products deliver a rich feature set and provide powerful Wi-Fi capabilities that can be extended in the home with Intellifi, SmartRG's advanced Wi-Fi meshing solution.

Personalizing your subscribers' experience is key in broadband service delivery, and ADTRAN's Mosaic Subscriber Insight (MSI) improves operational efficiency, elevates customer focus, and ultimately improves the subscriber experience. MSI enables broadband service providers to gain real-time insight into subscriber, application and network status to actively troubleshoot problems and eliminate truck-rolls. It also identifies subscriber and billing system inconsistencies, and improperly provisioned circuits to cut down on revenue leakage. With MSI, operators gain a global view of network and traffic patterns to plan network upgrades before experiencing bottlenecks.



Illustrative Deployment of Fixed Wireless Solutions



Source: ADTRAN

FIXED WIRELESS ACCESS OPTIONS

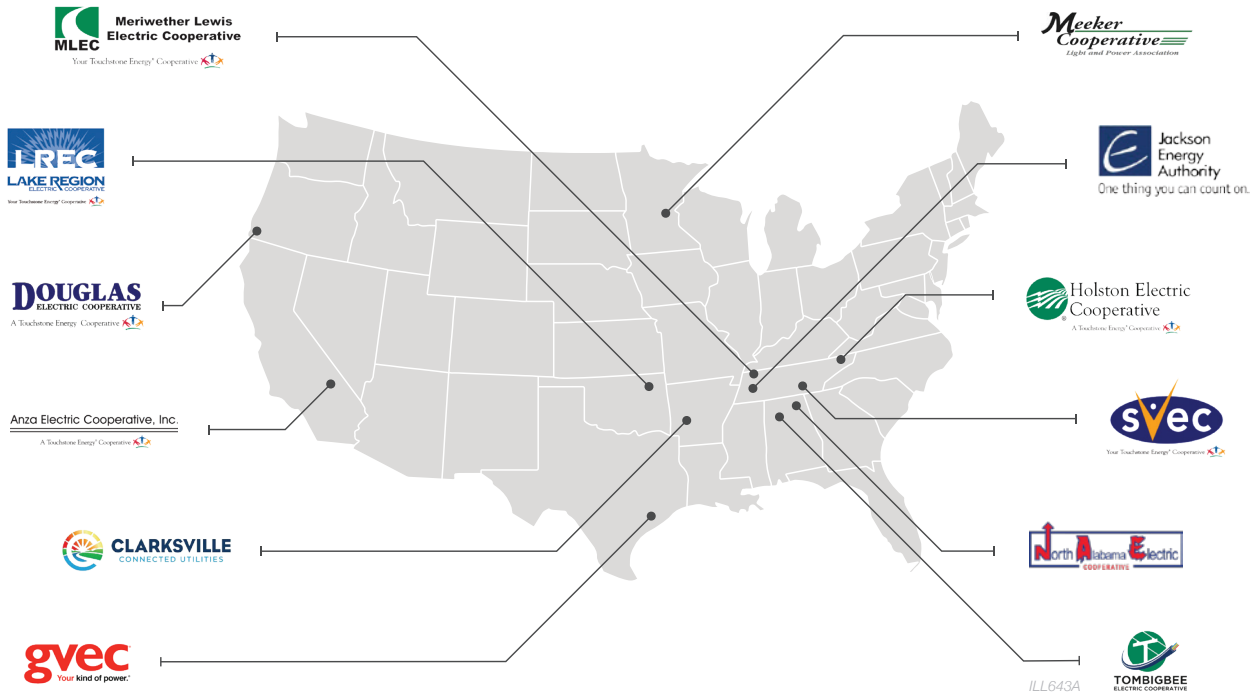
Utilities have a key role to play in the infrastructure for next generation service delivery, and in cases where the economics for FTTP isn't immediately practical, a hybrid network approach of fiber along with fixed wireless access solutions present an alternative pathway to last mile connectivity. ADTRAN and its partners have a range of fixed wireless solutions for backhaul and direct access to businesses and homes.

PARTNER WITH OUR PROFESSIONAL SERVICES

ADTRAN has the engineering, technology and operational expertise needed to successfully elevate your network, improve your operations, and boost subscriber experience through a full suite of professional services including consulting, managed services, network implementation, maintenance, and solutions integration.

Many utilities find the benefits of network implementation services to be especially helpful, in terms of planning and building their networks, then making deployment as simple as possible. ADTRAN's consulting services also offer transformative advantages for your network. Network audit services provide a comprehensive evaluation of your infrastructure to optimize efficiencies, resident and remote engineering services are available for dedicated support, virtual CTO expertise provides an executive technical management resource, and Mosaic Network Insight enables you to better understand and improve network operations.

LEARN FROM PEERS DEPLOYING FIBER BROADBAND



ABOUT ADTRAN

ADTRAN has a unique understanding of the changing environment utilities face today. As broadband continues to transform the way we all live, work and play, ADTRAN is enabling countless utilities around the country to deliver the connectivity and communication solutions their communities need in order to grow. We offer the most complete broadband access portfolio on the market today, with rapidly deployable solutions that maximize existing infrastructure and include world-class services and support.

Learn more and contact us at: **adtran.com/utilities**

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