Aviat
NETWORKS

Quickline Communications Builds Capacity for Rapid Expansion with Aviat Multi-Band

INTRODUCTION
Meet Quickline Communications

One of the largest wireless Internet service providers (WISP) in the UK, Quickline Communications is focused on delivering improved broadband connectivity in rural areas of the north of England and beyond, where a significant digital divide remains and hundreds of thousands of homes and businesses need faster connections. Based in East Yorkshire in the north of England, Quickline expects to provide 500,000 rural premises with access to gigabit-capable broadband with a network that combines fibre-to-the-home with licensed and unlicensed microwave and 5G mobile technologies.

This hybrid approach to reducing the digital divide has enabled the firm to win four multi-million pound government contracts as a part of the Building Digital UK (BDUK) program. BDUK is set to become an Executive Agency responsible for ensuring that every UK home and business can access fast and reliable digital connectivity. The UK government is investing £5 billion to ensure that everyone will have the same access to gigabit-capable broadband, and to supply next-generation internet access in places that other operators have largely ignored. By offering rural customers up to 900 Mbps of service with unlimited data, Quickline has grown rapidly and provides internet access to thousands of customers already, with ambitions to reach tens of thousands as the business scales up.

THE CHALLENGE
Higher Reliability with Greater Capacity

Quickline maintains a backhaul network consisting of fibre and licensed microwave links, and uses unlicensed microwave links for last-mile customer access. Subscriber growth had reached the point where the existing licensed microwave links no longer delivered the capacity and reliability the company needed to properly serve its customers. It had become difficult to support service to new customers at the speeds they wanted, and weather often made the network unreliable.

> " We were searching for a solution to deliver 10Gbps over a 10-12km distance, and the link had to be reliable even in a heavy rain," says Andris Uplejs, head of new infrastructure at Quickline Communications. "We also wanted the flexibility to use both low- and mid-frequency bands for distance along with E-band to deliver high capacity. "

THE SOLUTION
Aviat WTM 4800

After evaluating offerings from other manufacturers, the Quickline team chose Aviat's WTM 4800 Multi-Band radios. Aviat Multi-band radios are the best solution because they take advantage of a connectivity "sweet spot" in a way that microwave alone cannot achieve. The dual-radio WTM 4800 supports microwave frequencies in the 13 and 18 GHz bands for longer distance with high availability, combined with E-band 80GHz for high capacity. Thanks to this combination of band, Multi-Band links can span distances of up to 10 kilometers and more.

> " Aviat met our technical requirements – they have a very strong reputation for performance and reliability, and their Multi-Band radios support licensed spectrum as a backup radio," says Mr. Uplejs. "Also, the WTM 4800 radios work in bonded mode and not in failover mode, which was another important consideration. "

Beyond the product, Uplejs and his team also like the convenience of Aviat's online design tool, Aviat Design, and the online Aviat Store. The design tool makes link planning easy, and automatically builds a Bill of Materials for ordering products online for quick delivery. Customers can even check in real-time to see whether certain radios are available in stock, so they have up-to-date information on delivery times.

The WTM 4800 Multi-Band radio seamlessly and hitlessly combines the traffic from both the microwave and E-Band channel using a proprietary link aggregation protocol to take advantage of the capacity and availability of both bands. Other Multi-Band solutions operate in a fail-over mode, so that the microwave channel only takes over in the event that the E-band channel is lost due to rain, resulting in a traffic interruption during the switch-over.

THE RESULT
Capacity and Coverage

Quickline is deploying Aviat WTM 4800 Multi-band radios to significantly increase the backhaul network's overall capacity, stability and performance. According to Mr. Uplejs, the links take only "a couple of hours" each to deploy after a site is prepared.

The company's experience has demonstrated that the Aviat-based Multi-Band backhaul solution not only stands up to northern England's mercurial weather, but gives Quickline the capacity it needs to expand services to more homes and businesses.

" Aviat's radios have turned out to be the ideal solution for us," says Mr. Uplejs. "Our goal is to provide 500,000 rural premises with access to gigabit capable broadband over the next few years. With that goal, it's very important that we have equipment that gives us high-speed connections with almost 100% uptime. Aviat radios deliver on both counts. "

Uniquely combining both radio channels in a single all-outdoor unit, the WTM 4800 reduces equipment costs and installation labor expenses, cutting Total Cost of Ownership and creating a simpler, more reliable architecture. The single box solution also enables the radios to be more easily deployed on lighter pole structures often used by Quickline in rural areas where towers may not be available.

ABOUT QUICKLINE

Quickline is an independent Wireless Internet Service Provider (WISP) with a wireless and fibre network covering Yorkshire and Lincolnshire. The unique way in which the company provides internet access delivers connectivity to businesses, residential areas, and schools even in remote rural areas, as well as towns and cities.