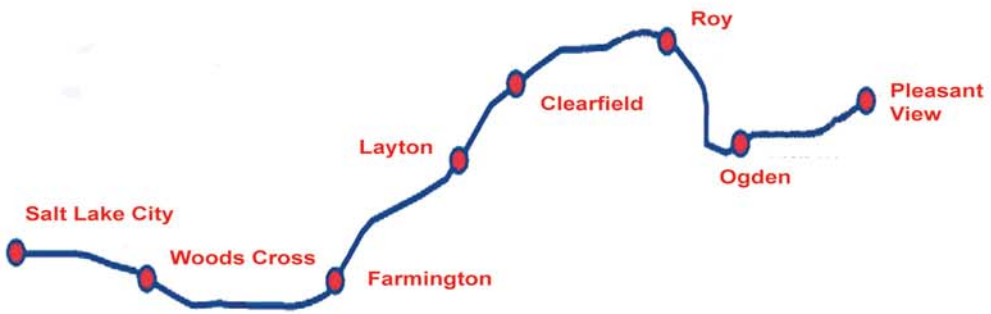
Nomad Digital

BROADBAND WIFI ON-BOARD IN US

UTA

UTA FRONTRUNNER ROUTE



THE CHALLENGE

Running through the heart of Utah, the UTA Frontrunner is a commuter rail line servicing on average 8,000 passengers per day. A growing ridership on the rail lines, as well as a need to remove congestion on the roads around Salt Lake City, the UTA wanted to offer an enhanced service to enable passengers to use a high-speed WiFi link, to help them check emails or surf the internet over a public open wireless network.

A tight deadline for a fleet wide rollout meant that the UTA needed a company with the experience and knowledge to use both a primary method of high-speed connection, along with a cellular network for backhaul. The solution had to be flexible as the WiMAX stations would not be installed immediately, and the system would have to use other methods in the interim.

THE SOLUTION

With a proven design through previous projects and PoC's, like Southern Express, Nomad was more than capable of understanding the needs and requirements from the UTA. With tight deadlines and a fixed budget, Nomad partnered with Wasatch Electric to provide a rollout of the entire UTA Frontrunner fleet within record time, through use of UTA's trackside fibre network 'capped' with pre-WiMAX radios and 3G HSDPA backhaul.

Nomad's Wireless Inter-Carriage Link

To ensure minimum physical impact on the train, Nomad used its patented Inter-Carriage Link (ICL) to wirelessly transmit data from carriage to carriage. Connected to Access Points in each carriage, the ICL allows for passenger WiFi, and other services to connect to the on-train network over short distances. Nomad's solution for a wireless ICL means minimal cost and disruption to train equipment.

Nomad's Partnered Support

Wasatch, the contractor used to rollout the Nomad system were also provided with 2nd line support through Nomad's Fleetmanager software to remotely diagnose and fix problems if the system wasn't working to optimum performance. This means a decrease of operational and maintenance costs as engineers only need be called if the problem can't be fixed remotely, and therefore on-site repairs take less time.

THE RESULT

The result has meant that passengers enjoy well over 1000 sessions per day and a quality WiFi service, whilst travelling at high speeds along the rail lines. This has increased UTA's profile in the US as a leader in providing high-speed internet access, whilst creating a base for most cost effective methods of maintaining the Frontrunner system with the Nomad platform.

Nomad's solution involving a full turnkey solution has meant that UTA now have a fully expandable solution, and can communicate with any of their on-board applications at any time. From the outset this service has had phenomenal success, and has meant that UTA have enjoyed sustained high passenger levels.

"Our free Wi-Fi service has been enormously successful - we really believe that our passengers value the service's availability and consider it one of the key reasons to regularly choose the train over the car for their commute.

Take-up of the Wi-Fi service is consistently over 20% of all riders, with each getting an excellent user experience at true broadband speeds."

Karl Brimley
Executive Director
UTA Frontrunner

Nomad Digital

About Nomad Digital

Nomad Digital is the world's premier provider of high-speed data communication solutions to the transportation sector.

Nomad specialises in the provision of "always on" mobile data solutions to operators, delivering an enhanced customer experience, additional revenues and reduced operational costs. Applications include;

- Passenger WiFi
- Real-time CCTV
- Operational data download
- Integrated media systems

Nomad Digital Ltd
Second Floor, Baltic Chambers, Broad Chare,
Newcastle upon Tyne, NE1 3DQ
+44 (0)207 0 966 966 enquiries@uknomad.com

BUSINESS CASE

Trackside Networks to produce super high-speed broadband on-board

UTA's trackside fibre network has meant that they are able to utilise the high-bandwidth capability to provide their passengers with extremely high data rates often in excess of 3Mbps, comparable to home or the office.

Nomad uses WiMAX switching technology to power the high-bandwidth internet connection. Whilst a train is travelling, the system is able to connect to the strongest signal available, then switch to a stronger signal when one becomes available.

Because of high-speeds available through WiMAX, applications such as real-time CCTV, or news streaming are easily available without impacting on other services.

WHAT'S NEXT...?

Nomad is currently in discussion with UTA regarding providing more security and operational benefits to both themselves and their passengers, as well as a rollout of Phase 2, named the Frontrunner South expansion.

Nomad are a thought leader in developing integrated solutions to offer customers a digital platform using any data channel of communication available. This IP tunnel creates new commercial opportunities for company growth, through improvement of passenger relations, reduced operational costs, and safer working conditions.