

EEMITS DELIVERS MULTI-SITE DIGITAL RADIO SOLUTION FOR NORTHUMBRIAN WATER



Northumbrian Water wanted to upgrade their analogue radio systems at their Bran Sands site, with further scope to create greater connectivity at their Mosswood and Wear Valley sites.

THE CHALLENGE

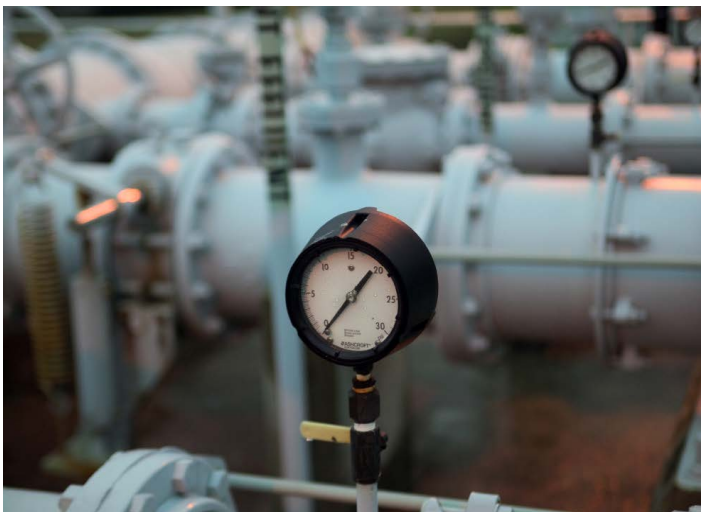
Northumbrian Water is a UK water company that provides mains and sewerage services in Northumberland, Tyne and Wear, Durham, and parts of North Yorkshire.

They provide vital services to over 1.3 million people in the North East and are firmly rooted in the communities they serve all year round.

The initial challenge was to upgrade the analogue radio system they had in operation at their Bran Sands (Middlesbrough) site.

To do this, they required a new digital solution that would give them site-wide coverage, dedicated group channels manage their radios from a centralised location, and have access to software and features that helped to keep staff safe, in particular lone workers.

Following the success of the Bran Sands installation, the next challenge was to implement smart solutions at their Mosswood (Consett), and Wear Valley (Wearhead) sites.



PRODUCTIVITY
up



EFFICIENCY
raised



SAFETY
increased

THE SOLUTION

We installed our ultra-smart digital two-way radio solution - TRBOCALL – a modular platform comprising the following:

INFRASTRUCTURE

Northumbrian Water opted for:

DMR Tier II Conventional System

(Bran Sands)

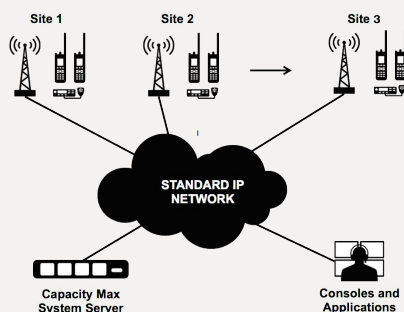
Capacity Max (Mosswood & Wear

Valley)

What is Capacity Max?

Capacity Max is a Digital Mobile Radio (DMR) system that is built on distributed IP architecture to enhance voice and data capabilities, and give end users centralised control to give command of infrastructure, devices and talk groups.

The system supports up to 250 sites at any one time, with up to 3,000 users per site.



We first installed a Digital Mobile Radio (DMR) Tier II Conventional radio system at Bran Sands in Middlesbrough, and then created two more systems at their Mosswood and Wear Valley sites.

DMR Tier II Conventional radio system

Northumbrian Water made the move from an analogue system to a DMR Tier II Conventional radio to give them reliable coverage and access to some data services.

To achieve the best possible coverage for workers, a digital repeater was strategically placed on site.

Capacity Max

We then installed Capacity Max systems at their Mosswood and Wear Valley sites to give them super reliable site wide coverage and access to a wide range of smart software solutions and features.

Both sites are able to centrally manage their radio system and monitor lone workers, integrate alarms and send important updates out to staff via pre-defined text messaging.

The other main benefit of installing a Capacity Max system was the ability to implement the solution at multiple sites, so if Mosswood wanted to speak to Wear Valley they could.

The sites wanted to support its lone working staff (especially as they worked in hazardous areas) with the use of GPS tracking and lone worker alarms that could be monitored via a centralised dispatch system.

They also wanted to have a gate intercom system in place so they could manage who was entering the site at any given time. See the Software and Features page for a full overview of GPS tracking, lone worker alarms and gate access.

With the use of a digital repeater (to boost coverage) we were able to install systems that not only gave them site wide coverage, but gave them full control over managing and monitoring their system.

THE SOLUTION

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SOFTWARE & FEATURES

Northumbrian Water opted for:

- Lone Worker
- GPS Tracking
- Alarm Integration
- Gate Intercom System



The Benefits:

Due to the nature of work at Northumbrian Water sites, it was vital for Northumbrian Water to have a focus on worker safety, and site security. That's why they opted for the following software and features.

Lone Worker

With workers often in isolated (and potentially dangerous) environments, a solution was required to ensure staff working alone were accounted for and protected at all times.

With the use of a Lone Worker alarm, a periodic update is sent to a worker's radio via the TRBOCALL dispatch system, and they can respond to let the control room know they're fine.

In the event something isn't right, the dispatcher can alert other users to a problem, or the lone worker can press an alarm that will filter through to the control room.

GPS Tracking

As workers are occupying vast amounts of space at any given time, it's important that the control room are able to monitor device location. With GPS tracking, the control room can see in real-time where their radio users are located - aiding worker safety, productivity, and efficiency in the process.

Alarm Integration

Data communication is as important as voice communication for Northumbrian Water. Using a communication protocol known as MODBUS, our TRBOCALL system was able to send out important alarm messages to radio users in the form of text messages.

Gate Intercom System

To create a smart gate entry system, our TRBOCALL system was connected to Northumbrian Water's existing intercom system. With the use of the installed digital repeater, the signal from someone pressing the intercom system is passed through to all radios turned on, and via the simple press of a button, the gate can be opened.

THE SOLUTION

We installed Eemits ultra-smart digital two-way radio solution - TRBOCALL – a modular platform comprising the following:



SERVICE WRAP

Northumbrian Water opted for a 60-month Managed Service, including:

- Accidental repair
- Annual preventive maintenance visit
- Access to the latest technology
- Software updates



HARDWARE & ACCESSORIES

Northumbrian Water opted for:

- Motorola Solutions DP4801EX radios (Bran Sands)
- Motorola Solutions DP4801e radios (Mosswood, Wear Valley)
- Motorola Solutions SLR5500 UHF repeaters
- Motorola Solutions DP-Series multi-unit chargers
- Motorola Solutions DP-Series carry cases and shoulder straps
- Motorola Solutions DP-Series remote speaker microphones

Northumbrian Water chose a bespoke 60-month Managed Service that provided them with expert engineering services and dedicated business hours aftersales support.

The Benefits

Accidental damage

As part of their Managed Service, Northumbrian Water get accidental damage cover for their radios. Should they drop or break the radios, their cover means they can be repaired and returned.

Annual maintenance visit

Once a year our engineers go to site to make sure everything is running smoothly, checking for any coverage issues or performance improvement opportunities.

Access to the latest technology

As site radios are on a long-term hire basis, we can futureproof Northumbrian Water's fleet by making sure they have the latest models during their contract and any renewal processes.

Software updates

Having the latest software updates ensures that the radios being used are performing at maximum capability. With key software and features being used over the 60-month period, it was important that software updates were part of the Managed Service offered.

The Benefits:

Motorola Solutions DP4801Ex

Bran Sands has designated ATEX zones (potentially explosive or hazardous environments) so DP4801Ex radios were deployed as they are ATEX certified, meeting rigorous standards for use in areas where explosions or hazardous incidents can occur.

Motorola Solutions DP4801e

The Motorola DP4801e Full Keypad Radio suited the working environments of Mosswood and Wear Valley as it is IP68 rated, so it can withstand being submersed in up to 1.5 metres of water, and can withstand dust and dirt. Plus, it has smart features like Lone Worker, and a full keypad to read text messages.

Motorola Solutions SLR5500 UHF repeater

To combat physical and virtual obstacles on-site, a Motorola Solutions SLR5500 UHF digital repeater is used. It helps to create seamless connectivity at each Northumbrian Water site.

Motorola Solutions DP-Series accessories

As workers carry out "hands-on" tasks, Northumbrian Water chose carry cases and shoulder straps, so workers don't have to carry radios around. They also opted for remote speaker microphones so workers could speak without having to talk via the radio.

WHAT THEY SAY ABOUT US:

SUMMARY

Northumbrian Water now has a digital system in place at three of their water sites in the North East.

With great coverage, connectivity, and centralised control, they are well equipped for digital voice and data communication success today and tomorrow.

Eemits innovative modular platform TRBOCALL - a unique combination of hardware, bespoke software applications and digital features - together create an ultra-smart two-way radio system. Combined with unrivalled wide area network coverage, our customers have the flexibility to build their own system with all, or a combination of infrastructure, hardware, software service wrap, features and accessories that suite their individual business needs.

EEMITS CLIENTS BENEFIT FROM:

Productivity increased by up to

40%

PER SITE

Efficiency raised by up to

1 hr

PER EMPLOYEE PER DAY

Safety increased for

100%

OF YOUR WORKFORCE VIA DIGITAL RADIO WHERE EVER THEIR LOCATION