EEMITS CREATES DIGITAL RADIO SOLUTION FOR SEMBCORP AT WILTON INTERNATIONAL SITE TO BOOST WORKER SAFETY

UTILITIES

Sembcorp own and operate Wilton International and they required a digital radio solution that provided them with no single point of failure and important safety features for staff.

THE CHALLENGE

Sembcorp Energy UK (Sembcorp) is a leading national provider of renewable energy solutions and is part of the wider Sembcorp Industries Group.

From their Wilton International site (situated within the Teesside Freeport) they provide energy businesses with heat and power via a private wire network that generates electricity via gas and biomass.

The challenge was to create a digital two-way radio system that had multiple layers of system redundancy, site wide coverage - that would cover the multi-occupancy 2,000 acre site - and the right software and features for working and operating in a potentially explosive or hazardous environment.

Utilising the latest Internet Protocol (IP) technology and architecture, we installed an ultra-smart system (known as Capacity Max) that elevated voice and data into the digital age, and gave them enhanced functionality for boosting worker safety, productivity, and efficiency.

PRODUCTIVITY
up

EFFICIENCY
raised

SAFETY
increased

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Ultra Smart Digital Two Way Radio Solutions

TRBOCALL™
GREATER THAN THE SUM OF ITS PARTS

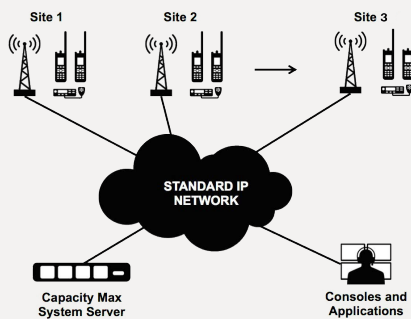**TRBOCALL – GREATER THAN THE SUM OF ITS PARTS**

THE SOLUTION

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

INFRASTRUCTURE

Sembcorp opted for: Capacity Max

Site 1   Site 2   Site 3

STANDARD IP NETWORK

Capacity Max System Server

Consoles and Applications

What is DMR Tier III Technology?

DMR Tier III technology providers users with a 'trunked' radio system whereby radios are automatically allocated frequencies, so the likelihood of two groups trying to communicate with each other on the same channel is eliminated.

Tier III technology also brings digital data services into the mix, with over-the-air programming one of the key selling points of any DMR Tier III system.

Having the ability to make remote cloud-based system and radio improvements helps to reduce costs and downtime.

Operating across such a wide area, and amongst other occupants on-site, Capacity Max was the perfect solution for Sembcorp, as it offered multiple layers of system redundancy, and utilised Digital Mobile Radio (DMR) Tier III technology to provide smart voice and data solutions, whilst maximising coverage capabilities.

To install a Capacity Max system for Sembcorp on the Wilton International site, we did the following:

Installed antennas and repeaters to boost coverage

By using two Motorola Solutions SLR5500 repeaters and strategically placed antennas, we were able to ensure coverage was amplified across the site.

With the use of back-up repeaters we were able to create layers of redundancy, should the use of primary repeaters fail.

Implemented a fallback system at Eemits HQ

As Sembcorp have a Capacity Max system, we're able to control the system via our servers should connectivity go down at site. This creates even more system redundancy over at Wilton International.

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THE SOLUTION

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

SOFTWARE & FEATURES

Sembcorp opted for:

- GPS Tracking
- Voice Dispatch
- Lone Worker
- Radio Allocation

Sembcorp opted for smart software and features that had a key focus on worker safety as they operate in a potentially explosive environment and have lone workers operating on the site.

The Benefits:

GPS Tracking
GPS, built into the radios, ensures that Sembcorp know exactly where their radio users are on-site. Using our TRBOCALL dispatch control system, the Sembcorp control room have full visibility of radio locations on an easy-to-navigate desktop solution.

Voice Dispatch
Voice Dispatch allows a dispatcher from the control room make direct individual, group, or emergency radio calls to co-ordinate quicker responses at key moments.

Lone Worker
Sembcorp have teams of people, including their maintenance team, working in isolated environments. Not only that, but as a site powering energy, they operate in ATEX areas, so worker safety is paramount.

From their centralised TRBOCALL dispatch control system, periodic alerts are sent out to lone workers to ensure they are safe and sound.

Their whereabouts can also be monitored on the system, and they can raise an alarm on the radio to alert other users that something is wrong.

Radio Allocation
The radio user can be identified by the ender user using the keypad on the device. Handy for knowing who is operating the radio and if conversations need to be recorded and played back when an incident has occured.

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THE SOLUTION

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

SERVICE WRAP

Sembcorp opted for a 60-month Managed Service, that includes:

Enhanced Warranty Repair & Accidental Cover

Remote System Monitoring

Annual Maintenance Visit

24/7/365 Support

HARDWARE & ACCESSORIES

Sembcorp opted for:

Motorola Solutions DP4801Ex radios

Motorola Solutions ATEX Remote Speaker Microphones

Motorola Solutions Carry Cases & Shoulder Straps

Buddy Microphone

Sembcorp have a 60-month Managed Service with Eemits and they get access to expert engineering and dedicated aftersales support.

The Benefits:

Enhanced Warranty Repair & Accidental Cover
Sembcorp are covered for scenarios where radios need repair or they've accidentally been damaged on-site and need to be replaced. This gives them peace of mind that they won't have to fork out additional costs for new handsets.

Remote System Monitoring
As their radio system is cloud-based, we're able to monitor everything remotely and can make urgent system and over-the-air programming changes from our HQ.

Annual Maintenance Visit
One of our engineers heads to Wilton International on an annual basis to carry out a full site check to ensure everything is running smoothly.

24/7/365 Support
Our engineering team are on-call 24/7/365 to rectify any issues that occur - all aligned to to pre-agreed Service Level Agreements (SLAs).

The Benefits:

Motorola Solutions DP4801Ex
The Motorola DP4801Ex Full Keypad Radio was the ideal choice, as it's ATEX certified, so it's safe to use in potentially explosive or hazardous environments.

Motorola Solutions ATEX Remote Speaker Microphones
ATEX remote speaker microphones are rigorously built and ATEX certified, so they are designed to be used in potentially explosive environments. They workers to still speak without having to remove their radio from their work belt or pocket.

Motorola Solutions Carry Cases & Shoulder Straps
Carry cases & shoulder straps allow workers to carry their radios in a protective case without the requirement of carrying it round all day whilst they carry out vital work and tasks.

Buddy Microphone
A buddy desktop microphone was supplied to enable Sembcorp to use Voice Dispatch and make important individual, group, and emergency radio calls.

WHAT THEY SAY ABOUT US:

SUMMARY

Sembcorp now has a Capacity Max digital radio system in place that gives them ultra-reliable connectivity and key safety software and features for their staff, who operate in ATEX areas and need to be in a 'safety first' environment.

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

1hr

PER EMPLOYEE PER DAY

Safety increased for

100%

OF YOUR WORKFORCE VIA DIGITAL RADIO WHERE EVER THEIR LOCATION

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