

# The Wireless World Indoors

## ...for Industry



Provision of enhanced in-building wireless services to increase staff efficiency and safety

### The Challenge

Nowhere is the need for clear communication as evident as in the industry sector. A mobile workforce, working within a highly secured, hazardous environment that is often spread out over a wide area with multiple buildings needs clear communication, indeed, it is vital to the efficiency and the safety of the facility. The provision of reliable, ubiquitous in-building wireless coverage ensures that this need is met.

Wireless services may include:

#### Commercial cellular and WiFi communications

The emergence of pioneering, new mobile applications has dramatically increased the mobility and expectations of staff for ubiquitous coverage wherever they may be on the site.

#### Public safety communications

The hazardous nature of these working environments firmly places the issue of safety and protection of personnel at the top of the agenda. There is the need and very often the regulatory requirement, to improve the provision of wireless services in industrial facilities. In recent years, in addition to employee safety, ensuring the safety of emergency service personnel entering a building in their day to day work and in emergency or disaster situations has become critical.

#### Automation

**Building** - The ability to run applications such as motion sensors, door locks, lighting, alarm sensors etc...wirelessly over the core in-building infrastructure, reduces energy consumption, operating costs and disruption.

**Telemetry** - Dosimetry and Wireless SCADA

Other wireless services that can be covered include...

- Push-to-Talk
- 2-Way radio
- Paging

### The Benefits of Enhanced Wireless Coverage

Many industrial sites are now embracing wireless technology and in building wireless coverage as a means to solving the issues of efficiency, communication and staff safety:

- Increased efficiency – provision of seamless communication and information access
- Improved response times as staff accessible at all times
- Optimisation of IT expenditure through the provision of a reliable, in building wireless coverage.
- Selective streaming of services to certain areas within the building or campus
- Provision of a safe, secure environment through ubiquitous public safety coverage
- Future upgrades can be made without a need for additional install time in highly secured, restricted areas.

How can you, as an IT provider, building owner or manager in the industrial sector, effectively provide coverage for commercial and public safety wireless to ensure 'always on' communications and to meet regulatory requirements?

## The Solution

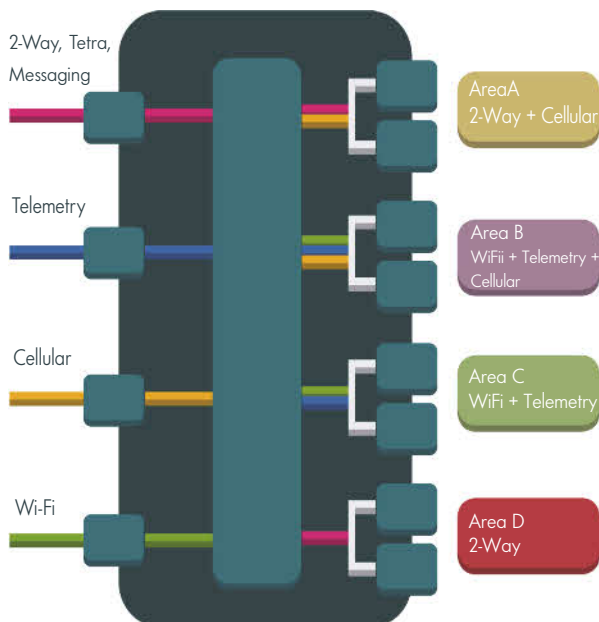
The wide variety of structures in an industrial environment brings their own unique set of challenges for the provision of in-building coverage. Different building shapes and different materials such as steel and secured concrete structures, cause in-building penetration of RF signals to weaken resulting in reduced data rates and even complete loss of signal. In addition, consideration has to be given to the need for a system that will minimise the potential for interference from high voltage machinery and with the ability to cope with the extended distances between the site buildings. In an environment with so many areas having restricted and time limited access, it is essential that the deployment of the chosen in-building solution is fast and easy to install causing minimal disruption.

Zinwave's unique 3000 Wideband Active Distributed Antenna System (DAS) removes many of the traditional issues and considerations associated with delivering multiple RF services in buildings. It provides ubiquitous coverage for all wireless services on one easily installed system. In addition, services can easily be routed to the areas of the building where they are required ie Dosimetry can be routed to areas where there may be radiation - see diagram.

## Summary...

Through the provision of ubiquitous, reliable in building wireless coverage, the site and the staff can hugely benefit from working effectively in a secure environment. Zinwave 3000 allows you the confidence that all expectations can be met and all future needs can be covered on one system with no additional disruption to restricted areas.

## One solution, one system for all your wireless needs...



## Key benefits:

**True Wideband** - Supports any service, protocol and modulation scheme from 150MHz to 2700MHz

**Low component count** - With as few as four components, an in-building wireless network can be built to support any mix and any number of services

**Lowest cost per sqm** - Comprising of a single hardware layer, the Zinwave 3000 system becomes more and more cost effective compared to a traditional solution with each additional service

**No costly upgrades** - Additional services can be added without the need for supplementary hardware, therefore avoiding further cost & disruption

**Easy planning & installation** - Self-calibration and auto-configure features simplify design & deployment

