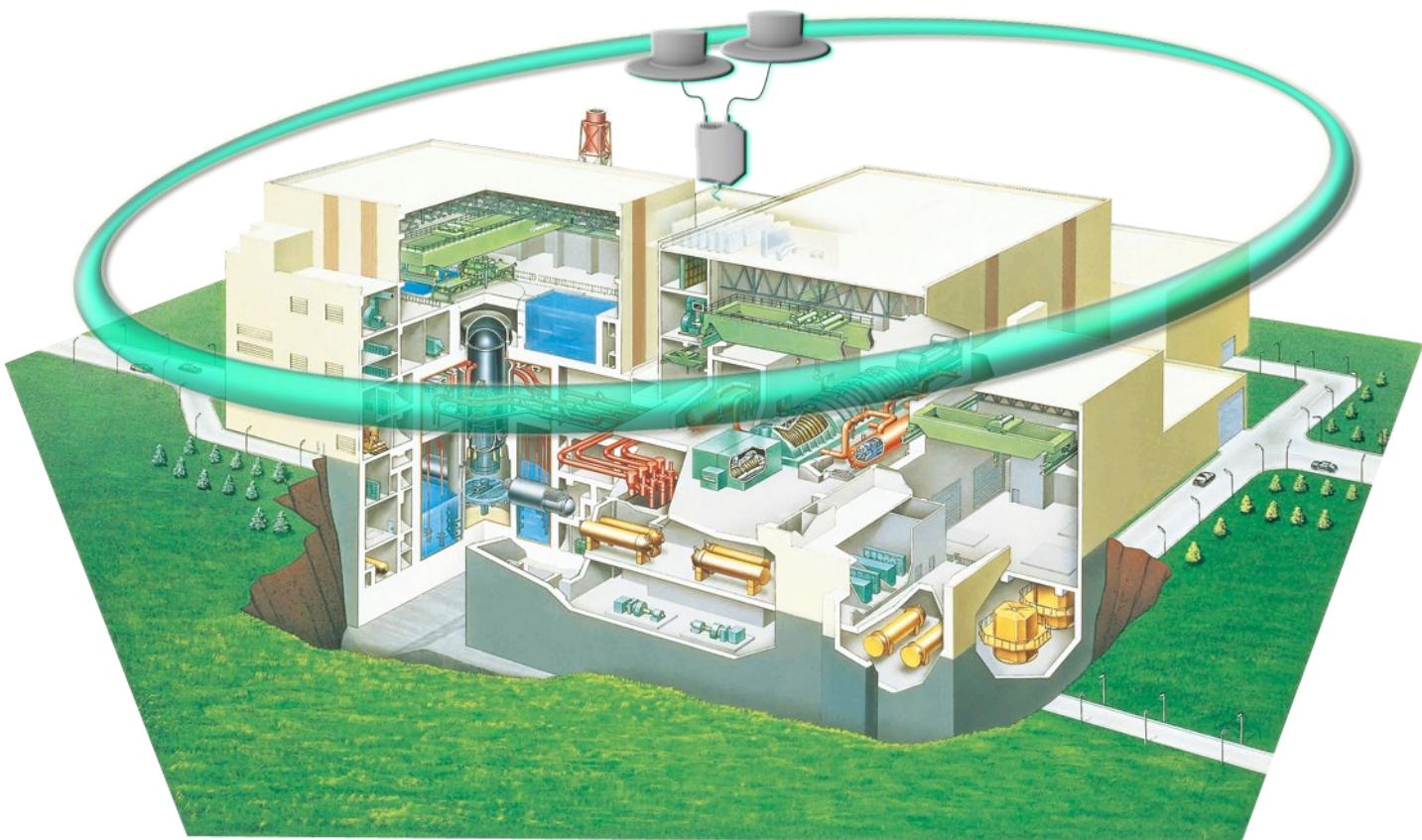


Innovative Industrial Solutions



I.I.S.

Zinwave



Zinwave Centralized Distributed Antenna System: Allows you to place all your telex and telemetry bases in one centralized location without deploying them through out your facility. "NO MATTER WHAT THE FREQUENCY" all telex belt packs and instrument signals within range of a Zinwave antenna will be managed simultaneously. Eliminating frequency management issues or deploying more bases to gain coverage.

Innovative Industrial Solutions, Inc.

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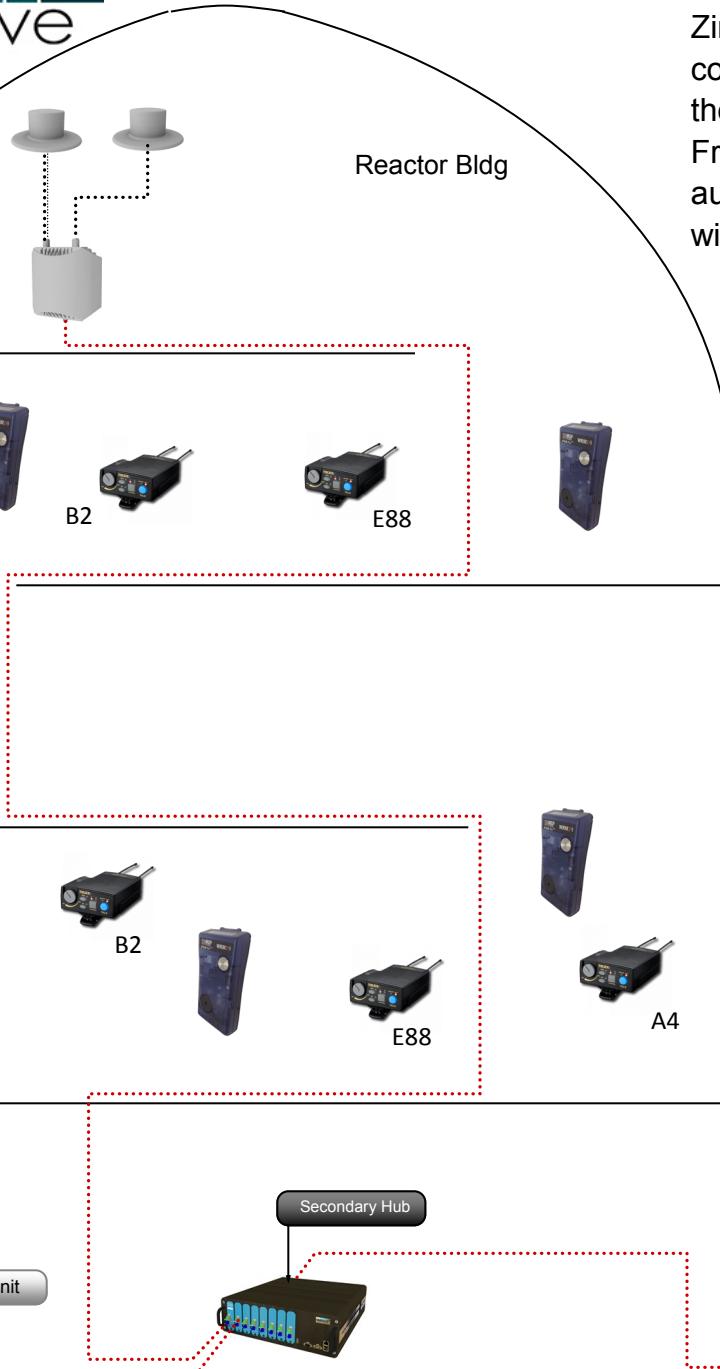
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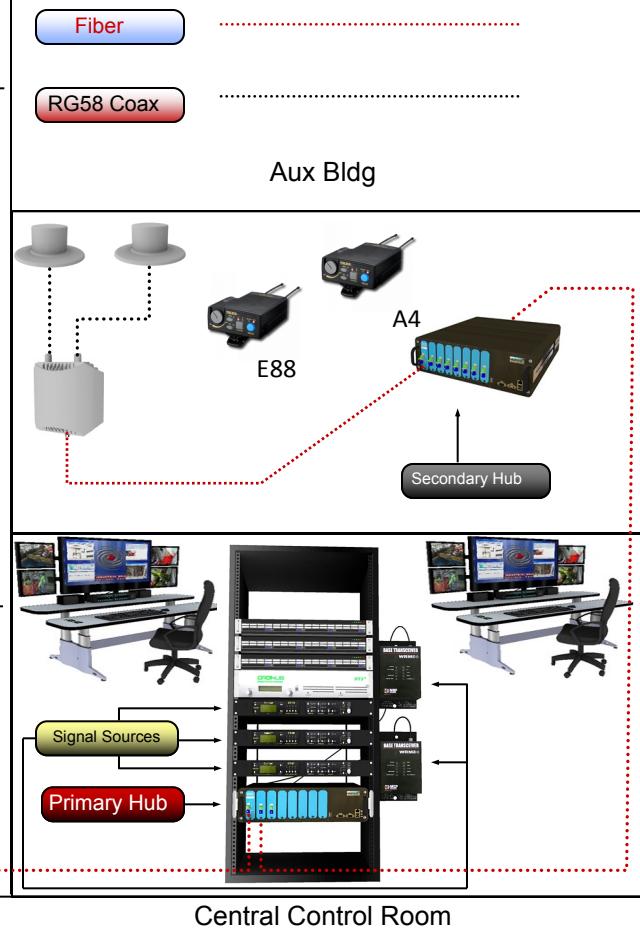
I.I.S.

Zinwave



Zinwave's Primary Hub at your central control room. With 2 fibers connected to the Remote Unit with it's Rx and Tx Fractal Antenna's deployed will manage your audio and telemetry signals simultaneously without deploying any bases into the field.

System Architecture



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System 3000 Hub

Zinwave utilises a modular system design, which adds another dimension of flexibility to the 3000 DAS and allows the same set of equipment to be used for a wide variety of different installations. Primary and Secondary Hubs use the same chassis with their function defined by the modules inserted in them. With as few as 4 components Zinwave's 3000 DAS can be tailored to suit every environment and building topology in the most cost effective way.

The Primary Hub interfaces with service sources such as base stations or repeaters via service modules, which accept signals from any service in from 150MHz to 2700MHz. The Primary Hub can connect to Secondary Hubs in a double star configuration, direct to Remote Units in a single star configuration, or a mixture of both.

The Secondary Hub interfaces to a Primary Hub through an optical module. Service modules can be added for local service injection such as WiFi. The Secondary Hub distributes to and receives RF signals from up to 8 Remote Units.

Each Hub benefits from a switch matrix which can be used to route specified services to particular areas within a building or campus. This matrix might, for example, be used to create cellular sectors for traffic management or to create localised WiFi access areas.

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Remote Unit



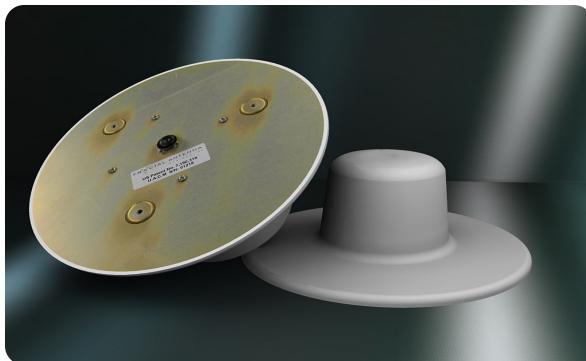
The Remote Unit defines the final cell coverage, communicates via optical link to Secondary Hubs and receives and amplifies signal from the users hand held devices, laptops, mobiles phones, etc. Remote Units are small, wall or ceiling mountable units which amplify the received signals for transmission over a wireless link (in the case of the downlink signals) and amplify the received wireless signals for transmission over the optical link (in the case of the uplink signals).

Fiber

- SMF/MMF
- Central or local PSU

Fractal Antenna

Operating over 150 MHz to 6 GHz, the UACM antenna delivers excellent omni-directional coverage. The antenna is easily mounted. At higher



The UACM is suitable for:

- 150 MHz to 6 GHz
- Nominal unity gain
- Input power up to 10 Watts
- Omni-directional vertical polarization
- Integrated ground plane
- Inherently 50 Ohms
- SWR 3:1 or better
- IMT-MC450
- WMTS •
- SMR, AMPS, CDMA, TDMA, GSM 900
- PCS, DECT, GSM1900, UMTS

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