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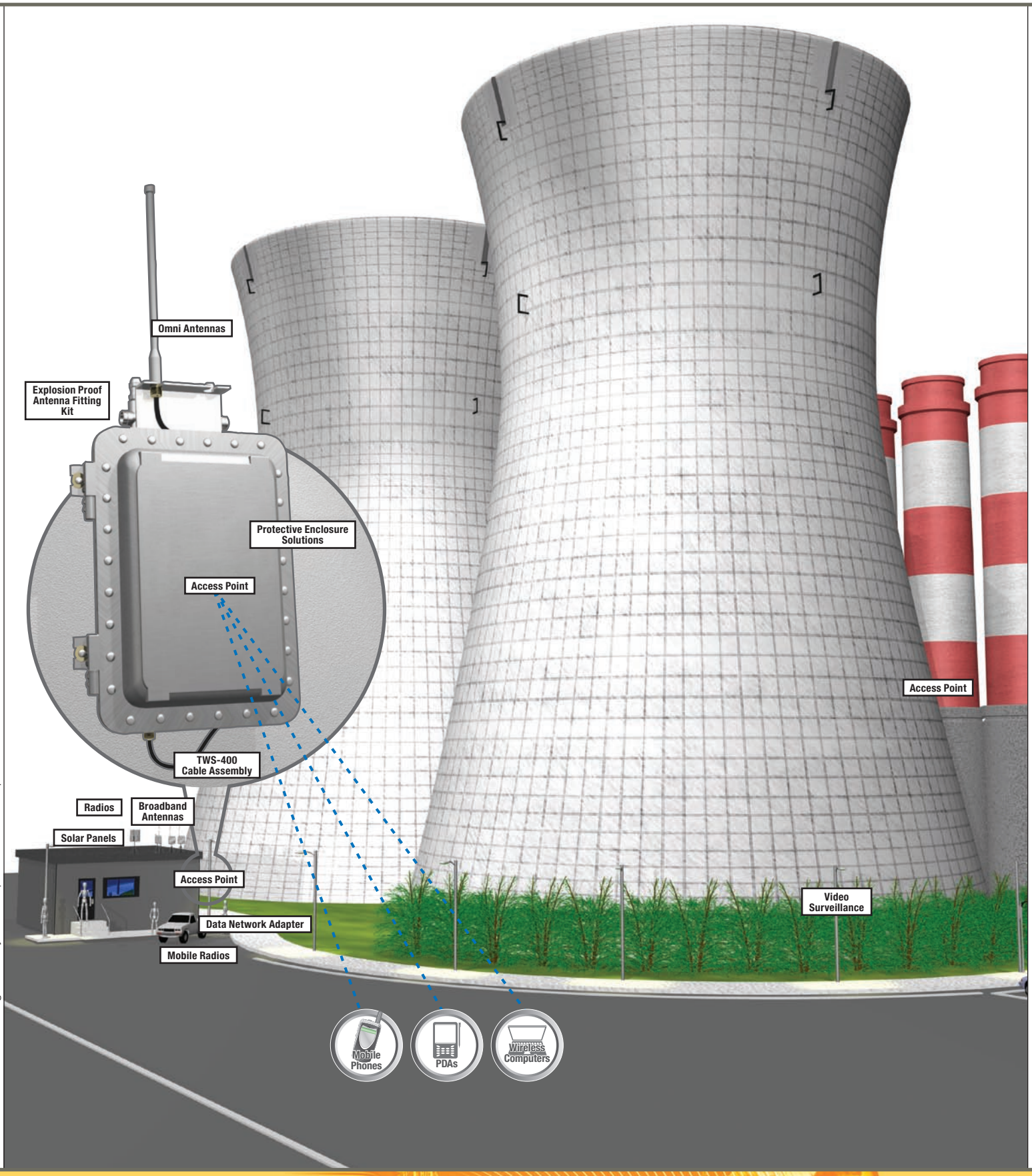
Solution: City & Campus Networks

Application: Hazardous/Industrial Environment



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SUMMARY

Hazardous and industrial campuses are deploying intricate wired and wireless networking infrastructure to support key applications and processes. Whether supporting a single building or a large multibuilding facility, most organizations need to provide access to data and voice communications throughout their facilities. While providing quality coverage and bandwidth throughout the facilities are important, there is also a vital need to ensure that the network can operate in adverse environments, without creating hazards such as explosions or malfunctions. This need is driving the development and installation of new products and technologies that can handle the rigorous requirements of potentially difficult environments.

FEATURES

- Basic voice and data transmission
- Combination of wired and wireless technologies
- Building-to-building connections
- Network availability in all locations
- Physical diversity
- Hazardous environment solutions
- Secure and weatherproof options
- Several available bandwidths
- Wireless point-to-point, multipoint, and mesh topologies
- Internet access in all locations
- Leased line replacement
- Coverage of buildings and areas not easy to cable

BENEFITS

- Increased employee safety
- Compliance with hazardous environments
- Improved efficiency of employees by allowing operational service at any location, even hazardous ones
- Lower costs than purchasing service from a carrier
- Lower costs by running a converged network capable of supporting any type of service or application
- Wireless deployments that provide flexibility and fast installation
- Increased longevity of equipment placed in rugged environments such as outdoors, hazardous, and non secure locations

REAL WORLD EXAMPLES

Situation: A chemical manufacturer wanted to upgrade a system that tracked all equipment and inventory between their manufacturing facility and their warehouses on the same large campus. The existing system was based on a manual process that could not account for all items, not only posing a danger to the facility and employees but also resulting in possible government fines for violating safety guidelines.

Problem: The network needed to cover several hazardous-environment locations. The network elements in those areas had to be protected so that any emissions they caused could not trigger an explosion.

Solution: A site survey determined the best locations for access points (AP). In certain areas the APs were installed inside protective enclosures designed for locations with flammable gases or vapors, combustible dust, or easily ignitable fibers and materials. The environment is now safe, fines are avoided and the manufacturer still has an effective tracking application.

ADDITIONAL CONSIDERATIONS

- Are applications indoor, outdoor, or both?
- What types of traffic will traverse the network?
- Is the connection to the outside world over leased lines?
- How many employees need to be supported?
- What is the size of the coverage area?
- What are the bandwidth needs?
- Are their security requirements?
- What is their growth plan?
- What kinds of test equipment are needed to monitor the quality of their systems?
- What interference sources exist?
- Has a site survey been done?

PRODUCTS

- Enclosures – NEMA, secure, explosion-proof, weatherproof
- Antennas
- Access points
- Attenuators
- Cable and connectors
- Cables assemblies
- Tools and installation supplies
- Test equipment
- Power solutions and back-up power
- Lightning protection
- Splitters
- Routers
- Switches