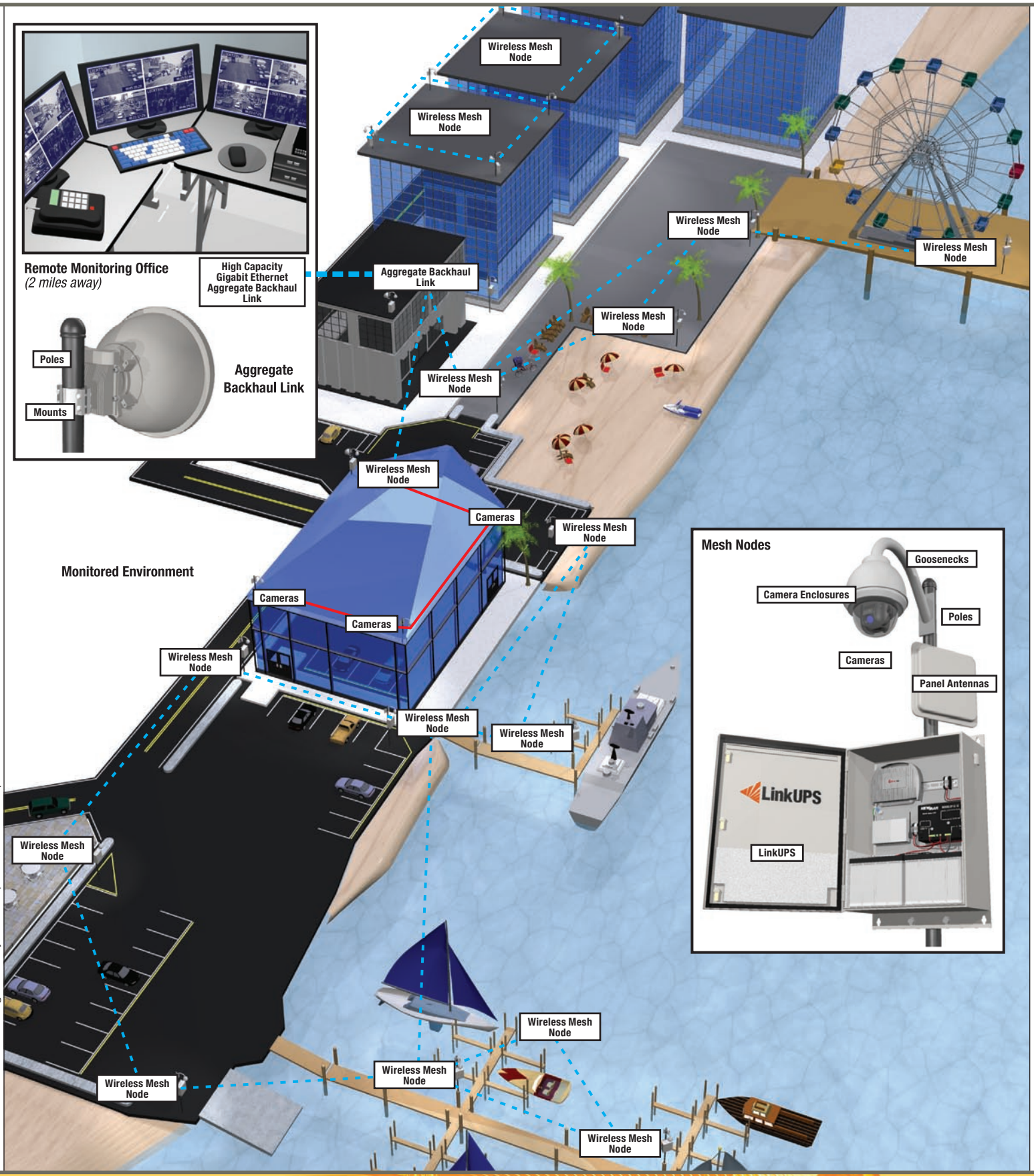
TESSCO

Solution: Security & Surveillance

Application: Remote Surveillance



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SUMMARY

Remote video surveillance is the use of cameras and other surveillance equipment to monitor properties and assets from a separate location. It is often used as a force multiplier or asset protection device for areas where it is not possible, practical, or affordable to install a cable network. It is commonly deployed in city and campus applications, or any place where it is difficult to monitor the surroundings using common means. Remote surveillance is a great opportunity to use wireless technologies for connectivity due to the flexibility they provide. A video surveillance system is only as reliable as the network it is connected to, so careful planning of the network technologies and equipment choices are crucial.

FEATURES

- Unlimited coverage
- Easily scaled
- Reliability
- Legacy equipment integration
- Non-line of site frequency bands
- Broadband data speeds
- Distances in excess of 20 miles
- Configurable to multiple needs and industries

BENEFITS

- Surveillance provided in otherwise unreachable areas
- Cost savings and installation ease, compared to cabling
- Reduced labor cost through centralized monitoring instead of human workforce

REAL WORLD EXAMPLES

Situation: A small town in California has invested in revitalizing a town center and promoting it as an attraction for shopping, dining and nightlife. They were looking to install video surveillance as a way to deter vandals and provide a cloak of safety to business owners and their customers.

Problem: The target area includes an intersection and one full block in each direction. They wanted to manage and monitor the video from a courthouse building, which is approximately one-quarter mile from the intersection. The town center is fully developed so digging into the streets, sidewalks, and buildings for the purpose of laying cable is not an option.

Solution: To reach its goals, the town outfitted each light pole on all four streets with a high megapixel camera that provides high resolution images and self healing wireless mesh nodes that d provide fast and reliable video transmission. All video is aggregated with additional nodes on rooftops and is then backhauled to the courthouse over a high capacity gigabit link.

Situation: A farmer was managing three properties in addition to the property on which he lives and farms. He needed a way to monitor the fuel tanks, equipment, and small irrigation systems that were parts of each farm.

Problem: The properties are spread out in different directions and are 27, 18, and 6 miles from his home farm. While there is power at the locations, there is no network connectivity. He has Internet access at his house.

Solution: He installed 6 IP Power over Ethernet (PoE) enabled cameras at the remote locations and transported the video back to his home location via three co-located point-to-point links. He runs the links into a switch located in his house and views the cameras from his own local network. He also set up motion detection on the remote cameras so that he is automatically notified when unexpected activity is taking place.

ADDITIONAL CONSIDERATIONS

- Is wireless or wired the better option?
- Do the camera locations have power?
- What are the fields of view to be monitored at each location?
- What bandwidth is desired?
- What are the camera considerations impacting bandwidth, such as resolution and frames per second?
- Are any special enclosures needed, such as vandal-proof or an industrial grade?
- Are their competing wireless frequencies in the area?
- From how many sites will the cameras be viewed?

PRODUCTS

- IP cameras
- Enclosures
- Mounts and brackets
- Cables, jumpers, and connectors
- Tools and installation supplies
- Wireless access points
- Antennas
- Digital video recorders
- Video storage
- Routers and switches
- Analog to Ethernet converters
- Power backup
- Test equipment

Knowledge Solutions

Providing the intelligence for optimum, faster decisions

- TESSCO.com
- The Wireless Guide
- The Wireless Journal
- The Wireless Updates
- The Wireless Bulletins

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