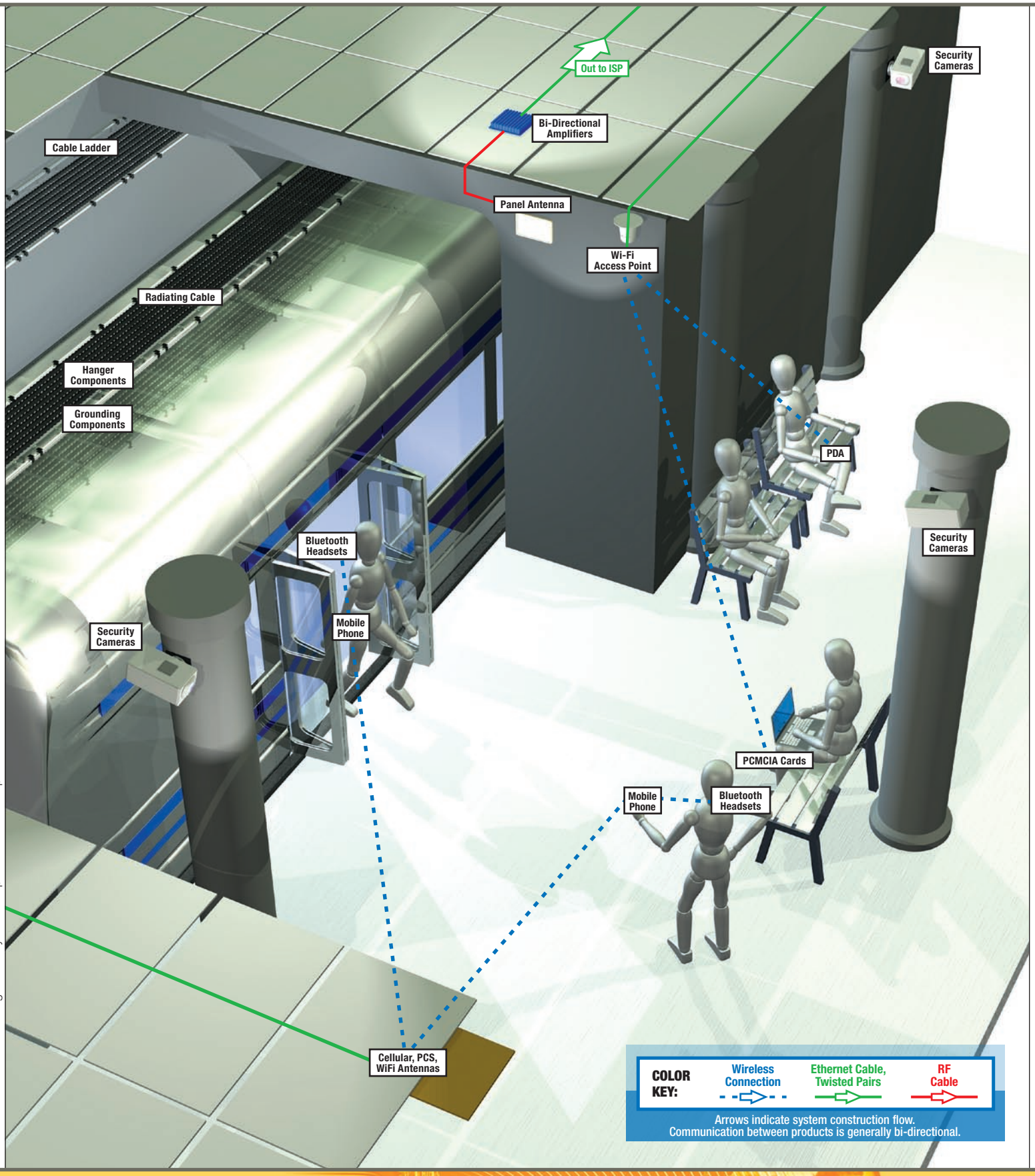
TESSCO

Solution: Underground Wireless

Application: Subway & Tunnel Coverage Systems



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Application: # Subway & Tunnel Coverage Systems

SUMMARY

In big cities, professionals who carry mobile devices spend a great deal of time on the subway. Subscribers expect a good wireless signal that provides excellent voice quality and high speed data transmission service whether they are working in the train, waiting on the platforms, or walking in the tunnel. Reliable coverage in these areas is also required by emergency services providers who need dependable communications, and secure personal safety solutions like video surveillance and security systems. Tunnels vary in construction and layout, so multiple solutions are required for success.

FEATURES

- Indoor installations
- Fixed-wire cameras or IP-access cameras
- Remote system access
- RF Coverage

BENEFITS

- Secure connections
- Satisfied riders
- Timely response by security/emergency personnel
- Reliable picture clarity
- Dependable RF signal coverage
- Cost savings

REAL WORLD EXAMPLES

Situation: A cellular operator recognized that users tend to choose the carrier that provides the best coverage in any location. The company wanted to increase their subscriber base and retain existing customers by improving their ability to deliver a strong signal to subway riders.

Problem: Because the operator is small, budget constraints were a concern. They needed a system that was both cost-effective and easily expanded to meet future needs.

Solution: The operator installed a broadband leaky feeder cable system throughout the subway system. With the use of radiating cable and bi-directional amplifiers, subscribers now have reliable coverage to communicate with the outside world.

Situation: During a large scale emergency, police, fire and other first response workers discovered that their ability to save lives was hampered by their inability to effectively communicate in confined areas and their lack of remote video monitoring capabilities.

Problem: They relayed their concerns to the transit authority who agreed to install emergency communications upgrades. However, the new equipment would have exceeded the capacity of their existing system.

Solution: The transit authority installed an independent leaky feeder system to avoid over capacity concerns. To address the need for surveillance, they installed a remote-controlled video system that included single-point administration, full replay & long-term storage involving multiple cameras and locations.

Situation: In order to increase their profitability and increase ridership, an urban transit authority needed to install a wireless RF system that would allow commuters to use their PDAs and lap top computers while waiting for trains.

Problem: Their budget was limited and they needed a way to recoup some of the costs of installing the new system.

Solution: The transit authority installed a Wi-Fi hot spot to provide wireless internet access for any public space. To recoup costs and generate revenue they selected a system that allowed for different connectivity options. They now provide basic service for free and offer longer sessions and increased bandwidth for additional fees. They are even experimenting with generating revenue by advertising over the network.

ADDITIONAL CONSIDERATIONS

- How big is the area to be monitored or covered?
- Will the new system work with the existing system or will this be a new design?
- How many locations require simultaneous monitoring?
- What are budget constraints?
- What is the distance between points?
- What are the bandwidth requirements?
- What are the network interface requirements?
- Are there any mounting or installation requirements?

PRODUCTS

- Cable ladders
- Radiating cable
- Hanger components
- Grounding components
- Security cameras
- Panel antennas
- Wi-Fi access points
- Bi-directional amplifiers
- Cellular, PCS, and Wi-Fi antennas