InterPark Improves Safety and Accessibility with D-Link Wireless Access Points and Honeywell Customer Service and Revenue Management Solution

The Challenge
Parking garages are essentially massive, stacked decks that cover large areas when considered in total. It’s difficult to design wireless coverage that can handle structural interference, moving autos, and low outdoor temperatures. Certain areas are dark and difficult to see in a direct line of sight. Concrete, steel and other structural materials interfere with Wi-Fi access points. Parked and moving cars present large amounts of metal and reflective surfaces that bounce signals. Garages are usually adjacent to large office buildings, campuses, and event centers that contain wireless networking equipment, as well. That proximity can interfere with the networking equipment used in the garage. Co-channel and adjacent channel interference is also possible from microwave ovens, cordless phones, and medical equipment.

InterPark was installing equipment in a garage near a hospital. They needed to enable parking attendants to roam around parking facilities with wireless Personal Digital Assistant (PDA) devices without sacrificing customer service and seamless support to patrons. The site survey indicated numerous challenges related to channel selection and wireless frequency selection. Radio signals from medical equipment and the hospital’s own internal network were overlapping the garage site. The garage needed affordable, dependable core switches and wireless access points with the built-in flexibility necessary for overcoming these complex radio traffic challenges.

The Solution
D-Link Value Added Reseller (VAR) NetStar Telecommunications helped the customer improve safety and accessibility at their garages with D-Link DWL-7700AP Wireless AG Outdoor APs/Bridges and Honeywell’s new ParkMAXXTM customer service & revenue management solution. The ParkMAXXTM integrated software/hardware solution offers parking owners and operators enhanced customer service, automated access control and video surveillance capabilities. The automated solution ties revenue transaction information together with garage access control, audio customer service, and video surveillance information.
The customer purchased seven D-Link DWL-7700AP Wireless AG Outdoor APs/Bridges for this particular project. The dualband AP/Bridge is capable of delivering maximum wireless signal rates of up to 54Mbps in both 802.11a and 802.11g wireless bands in any outdoor environment—simultaneously. It also features an integrated 802.3af Power over Ethernet (PoE) port that allows device installation in areas where power outlets are not readily available. Enclosed in a diecast watertight housing and equipped with a built-in heater monitored by a temperature sensor, the AP/Bridge is designed to endure harsh outdoor conditions. It can operate in -40°F.

“The D-Link solution was less expensive, better for outdoor installations, and it simplified installation because you don’t need additional enclosures,” said Agathon. In addition, the customer’s engineers already had a good impression of D-Link products.

More accurate details and audit information for attendant transactions at the garages help the customer track revenue and improve operations management. As a result, they expect the solution to pay for itself long before the original equipment has been fully depreciated. The ParkMAXX solution also allows them to share personnel across more locations without sacrificing customer service, offering substantial bottom line cost savings.

The parking industry is served by large independent suppliers who are experts in their respective areas, such as emergency alert equipment, revenue control software, gates and control equipment. One such expert, the DataPark revenue system vendor representative Michael Harris, President of Inter Technomics, played a crucial role in project management along with the integration of ParkMAXX with the onsite revenue system.

The installation took two weeks and was successful. The access points provided better coverage than was expected or needed, so they had to lower output signals. “D-Link engineers were instrumental in handling some configuration issues that came up,” said Agathon. “The D-Link support was excellent and key to the success of this project.”