

Computer Data Networks Builds Security Network for Palm Island, Dubai

An Industrial Networking Application

TECHNOLOGY TODAY

Computer Data Networks was awarded a contract to design, supply and implement a large Security Network consisting of over one hundred hardened outdoor Ethernet switches and high-availability core switches for use in critical security applications around the unique, man-made Jumeirah Palm Island in Dubai. Jumeirah Palm Island was constructed as a mixed-use development of commercial, retail, residential and hospitality suites, providing all the facilities that would be expected in one of the world's most costly and exclusive resorts. Included in the state-of-the-art security network are access control, parking management, video security systems . . . all networked over Ethernet and requiring robust hardware to ensure maximum network reliability.

Due to their immense scale and unique shape, the Palm Islands in Dubai are visible from space with the naked eye, and represent an unparalleled feat of design and engineering. The brilliance of The Palm is both in its tribute to the date palm tree, referred to as 'bride of orchard', and in its ideal geometry for creating maximum beach frontage. Each island will add 60 kilometers of shoreline to Dubai, increasing the Emirate's beachfront by an extraordinary 166%.

ABOUT COMPUTER DATA NETWORKS

Computer Data Networks of Kuwait – the region's leading provider of local and wide area network integration services – was commissioned by Siemens FSS, the Prime Contractor, to install a rugged and reliable network to carry IP traffic for various security functions, including access control parking management and video surveillance. Palm Island visitors will, of course, expect a degree of pampering and privacy that can only be assured by the most sophisticated and reliable of IT infrastructures.

THE CHALLENGE

Computer Data Networks drew up specifications for a five-ring redundant network – a high availability system that would meet all of the customer's requirements. The levels of data traffic anticipated called for hardened outdoor-rated Ethernet switches offering multiple Gigabit Ethernet ports and which would provide fast switchover times to provide quick network recovery in the event of a fault on one of the redundant rings. A high degree of configuration flexibility was also needed to allow Computer Data Networks to deliver its network strategy cost-effectively. Finally, there were severe environmental conditions to consider.



Computer Data Networks in Palm Island

THE CHALLENGE (cont.)

Recognizing that the high temperatures and high humidity of Dubai's climate coupled with the problems of salt sea spray and the corrosion associated with any coastal installation would make stringent demands on the networking hardware, Computer Data Networks turned to GarrettCom, the leading manufacturer of industrial networking products.

THE SOLUTION

GarrettCom was able to meet all of the project's requirements with its Magnum 6K32T configurable range of hardened Ethernet switches. The 6K32T is a managed Ethernet switch combining the highest Gigabit capability in its class with unmatched configuration flexibility, all at a competitive price which dramatically reduces the cost of Gigabit networking connectivity.

The Magnum 6K32T is supplied with MNS-6K software which provides for a complete range of network management services designed for ease-of-use, security, and redundancy. As with other managed switches in the Magnum 6K range, the 6K32T comes with self-healing LAN support including STP and RSTP, and GarrettCom's standards-based S-Ring™ technology for high-speed fault detection and correction. This was particularly important for the high availability system that Computer Data Networks had devised.

Another critical factor for the Palm Island project is that the Magnum 6K32T is available in a hardened metal package designed specifically for extreme temperatures and challenging industrial environments. The Magnum silicone conformal coating option was selected for added protection against humidity and salt spray.

Computer Data Networks' finished project has five rings carrying IP traffic for various security systems employing state-of-the-art technology. For example, the access control system will control access to private homes and private roads using smart cards. Further, while much of the video surveillance network has initially been laid out as a separate fiber-based cable system, the security network offers sufficient bandwidth and capability for numerous IP cameras to be added as and when required.

ABOUT GARRETTCOM

GarrettCom is a leading designer and manufacturer of networking products for industrial and outdoor markets such as factory floors, control rooms, power utilities and video surveillance. GarrettCom's focus has been on developing innovative, heavy-duty products that are designed with customer flexibility, security, and reliability needs in mind.

GarrettCom's products are designed with a variety of integral fiber ports - from multi-mode to single-mode, from standard SC and ST connector types to Small Form Factor types such as MTRJ and LC, from 10Mb to Gb speed. GarrettCom also offers power input options on its products including worldwide AC, DC at 24V, -48V, 12V, 125V, with dual-source redundancy optional. Many of the GarrettCom products are NEBS certified. For the new Power Over Ethernet (PoE) service, GarrettCom has developed a range of industrial Power-Source PoE products based on the IEEE 802.3af standard specification that support security products such as IP-cameras & badge readers.

To learn more about GarrettCom's range of hardened and innovative video surveillance products, visit www.GarrettCom.com/ip_video.htm.



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