

## Hyundai Goes Wireless

### **The Challenge**

The massive growth in Hyundai's car business in the UK prompted a rethink of the company's IT infrastructure to help improve efficiency and increase productivity at the import centre in Tilbury. Technology Manager, Clive Woodham, turned to Sigma Technology, a local systems integrator with strong wireless expertise, to recommend a solution that would be capable of accommodating the company's business growth over the next 5 to 7 years. One key area for attention was the automation of the inventory management system to enable Hyundai to manage the higher volume of cars as quickly and efficiently as possible. The company were using the JD Edwards One World software and wanted to move from a largely manual inventory management process to an automated system using handheld terminals with barcode scanning to track cars through the various stages between arrival at the docks to shipment onto the dealerships.

One of Hyundai's main requirements was the need for future scalability and the provision of wireless coverage, both inside the factory and outside at the dockside, without the need to lay additional cables to minimise cost and disruption to the business.

### **The Solution**

The solution recommended by Sigma comprised of four key elements: a wireless mesh backbone network, access points to offer wireless client connectivity, rugged handheld scanners from Intermec and a secure Ethernet switching infrastructure from Enterasys to relay information back to the UK head-office in Wycombe.

The mesh network from Firetide was a key component as it fulfilled the promise of a truly wireless environment, by requiring no cabling between individual mesh routers and eliminating the need to lay cabling to connect each of the 17 Wireless access points (APs) back to the Enterasys switch. The Firetide HotPort™ mesh routers had the added advantages of being deployable both internally and externally and non-proprietary, leaving the exact specification of the Wireless LAN open to choice.

The Airespace Wireless LAN was chosen to provide connectivity to the handheld Intermec client devices, which allowed staff to scan each car as it arrived and track its progress through the system to the point at which it left the factory destined for the dealership forecourt. The Airespace solution was chosen for its ability to work in harsh conditions such as the Tilbury docklands, where the APs are located 40 ft in the air on steel masts with immense potential for interference posed by the climate and ship's radio systems. The Airespace technology had been designed to minimise the potential for interference between APs by concentrating its intelligence in the controller not the AP.

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### The Solution

According to Clive Wadham, the benefits of the solution were immediately evident. The wireless network has been deployed quickly and easily with minimum disruption to their business, due largely to the fact that no additional cabling was required and the resilient RF mesh network has operated without a hitch from the outset.

*"I'm confident that the productivity and efficiency of the workforce will be enhanced by the use of the automated inventory management system and that we will be able to supply an even better service to our network of dealerships in building and delivering cars to customers' specifications."* commented Wadham.

Looking to the future, plans are already under discussion to use RFID technology to track the progress of the Hyundai cars through the various stages of import, fitting, testing and even beyond to the dealerships and potentially even the customers.

Talking about the overall project design and implementation, Clive Wadham praises the work of Sigma in *"removing the complexity and delivering an easily-manageable, fault-tolerant, future-proof solution that is a testament to the depth of their experience in the wireless market."*