

Case Study

an *Extronics* information service

Solution Overview

Profile

Fine Organics is a global leader in pharmaceutical, crop - protection and specialty chemicals.

Business Situation

The company required a safe & cost effective information infrastructure to allow the capture & processing of real-time data from every part of their manufacturing process.

Solution

Extronics specified & installed a standards based wireless LAN network which delivered 54Mbit throughout the manufacturing plant, including Zone 1 hazardous areas.

Key Benefits

- Cost - effective
- Ease of installation
- Flexibility of use
- Easily Scalable
- Reliability

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Fine Organics choose Extronics for Explosion-Proof Wireless Network Deployment

Background

Fine Organics Limited is a UK based manufacturer of high quality fine chemicals. The company produces pharmaceutical, crop-protection and specialty chemicals at its manufacturing facility at Seal Sands, near Middlesbrough.



The Problem

The need for real-time data is particularly acute in a multi-use batch plant such as Seal Sands. Without effective monitoring, equipment faults can not only hold up a single batch but potentially shutdown a whole manufacturing plant. Fine Organics had introduced a successful programme to capture and analyse real-time process data which formed the basis of their continuous improvement initiative. The system was computer based and the major stumbling block was how to cost-effectively network the units, particularly in the hazardous areas. Traditional Ethernet cabling was considered but the associated costs, particularly in the Zone 1 hazardous areas, were prohibitive. Additionally, this approach lacked the scalability that future growth expectations required.

The Solution

Following consultation with Extronics, Fine Organics IT Manager Paul Shields chose to implement a WLAN based on the 802.11a/b/g standard which offered a practical and cost-effective solution, particularly in the Zone 1 hazardous areas.

Extronics undertook a site survey to determine the optimum location and number of Access Points required to cover the reactor floor areas with a high bandwidth 54Mbit/s WiFi network. Extronics provided its iWAP WLAN Access Points which use a single channel architecture. Most process plants have unacceptable levels of background noise on one or more of the available 13 channels for the 2.4GHz WLAN spectrum, which will cause network connectivity and throughput problems if that channel is used. By using a single channel, the optimum one can be picked to avoid the interference.

The hardware was installed by the Fine Organics IT team and the complete WLAN was set-up by Extronics' professional services department in just one day.

Conclusion

Paul Shields said "The wireless infrastructure provided by Extronics has enabled Fine Organics to implement productivity improvements by capturing and analysing real-time data at source in our Zone 1 hazardous areas on site. Extronics expertise in wireless networking has been a crucial factor in the success of this project"