



APPLICATION STORY: CIBA, SWITZERLAND

The **Ciba** plant in **Schweizerhalle** is an important production plant for the manufacture of products associated with the Coating Effects division as well as for the development of processes for the Coating Effects and Plastic Additives divisions. The plant is located approximately six kilometres from **Basel**, close to the Rhine. The plant has excellent road, ship and rail connections providing an comprehensive transport infrastructure.

The Schweizerhalle facility is primarily used for new product development, and is where the associated new product processes are also scaled up from laboratory to production level. The manufacturing plants are on-site and are distributed over several floors. In many areas **Explorer Panel PC's** from **Gecma** are installed which offer local process supervision. The whole production surroundings are classified as **Zone 2** hazardous area.

MTL was asked to supply **Industrial Ethernet** interfaces and mobile HMI stations to transform some of the production areas so that mobile process visualisation could be implemented. This obviously required wireless transmission media and mobile HMI machines. Using wireless technology can present a risk of unauthorised access to the process control system (GE Fanuc) from un-authorized devices. This threat was negated by installing **Tofino™** industrial security appliances to provide maximum protection at critical hardware points. To obtain the required coverage, six **9469-ET Ex i WiFi Access Points** were distributed across the production area.

The access hub that passes data to the process automation network consists of:

- a **9211-ET Tofino™ Security Appliance** to provide maximum protection against un-authorized access to the network and for protocol filtering.
- a **9468-ET Ex i Isolator** to enable connection of the access hub to the non-IS process automation network.
- two interconnected **9466-ET Ex i Ethernet Switches** used to connect to the six distributed **9469-ET Ex i Wireless Access Points**.
- eight **9491-PS Ex i** power supplies. These units provide intrinsically safe power to all six of the 9469-ET Ex i Wireless Access Points using **IS Power Over Ethernet (PoEx™)** technology. This allows the Cat 5 cables that connect the WAP's to the access hub to also power the units remotely.

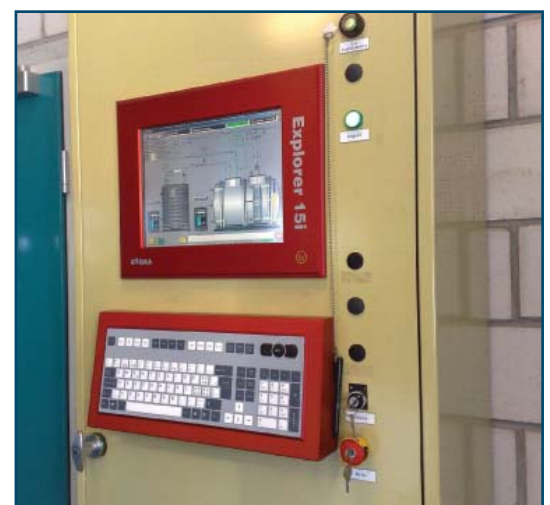
The mobile data acquisition is performed using a **CF19** laptop computer with Ex Zone 2 approvals and a built-in WiFi module. The laptop is capable of displaying the central HMI screen via **Remote Desktop** access and the process can be controlled using touch screen, mouse or touch pad interfaces.



9469-ET INTRINSICALLY SAFE WIRELESS ACCESS POINT



Network access hub showing Tofino™ security device, Ex i Isolator, Ex i Ethernet switch, IS power supplies and Ex i wireless interface.



Gecma 'Explorer' panel PC's used for local process supervision

