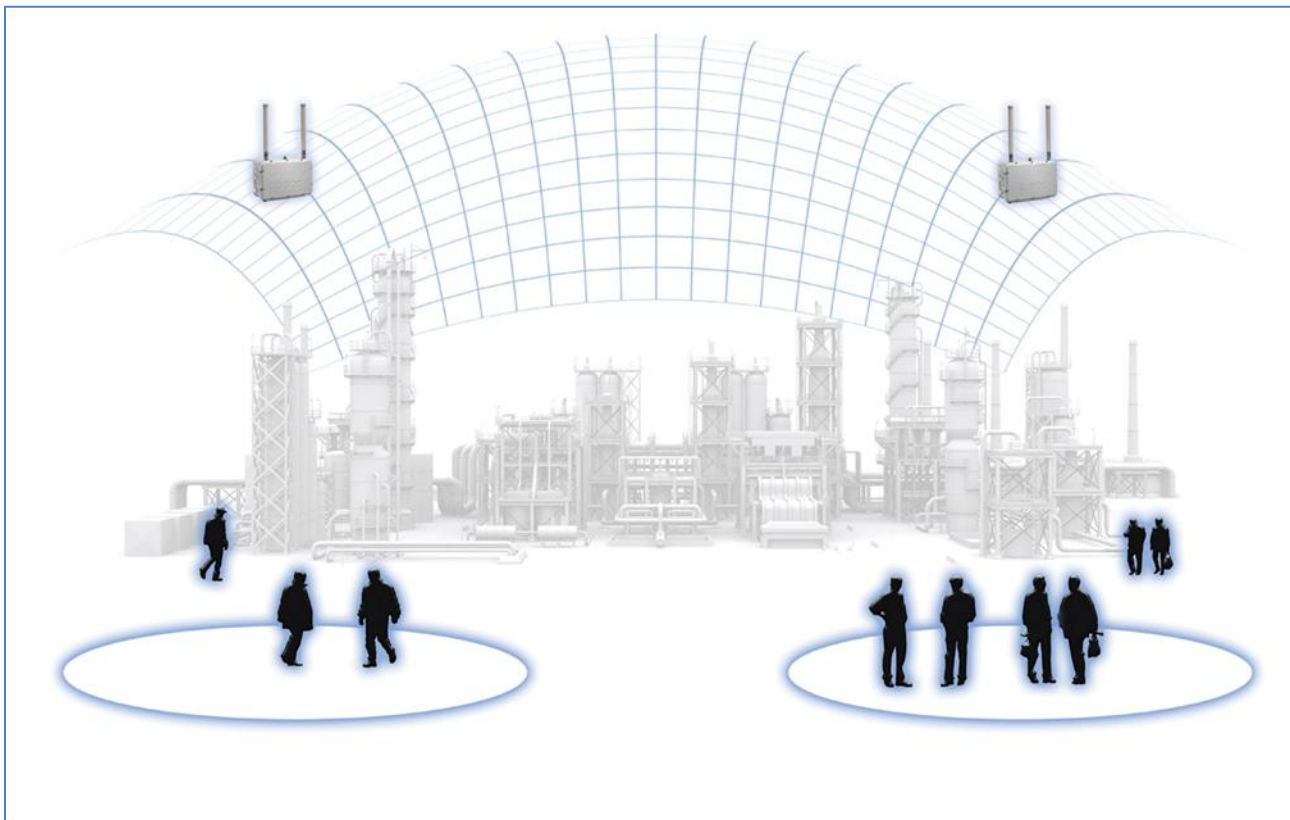


Wireless Safety Mustering



An Emerson Smart Wireless Safety Mustering Solution takes roll call instantly.

- Increase Plant Safety
- Comply with Regulations
- Scalable
- Secure and Reliable Communications
- Full Support Service

Introduction

Your workforce's safety is the highest priority. Providing full visibility to your workforce's locations in hazardous areas is extremely critical to an efficient evacuation in the case of an emergency. Accounting for personnel in a real emergency is time consuming and difficult when moments matter.

Emerson's *Wireless Safety Mustering* solution replaces clip-boards and walkie-talkies to instantly know which of your personnel are off-site, mustered, or missing within the plant.

Using IEEE 802.11abg standards-based technology, Emerson provides a fully secure, reliable Wi-Fi communication link between the safety mustering access points in your plant and the central control room.

This scalable Wi-Fi network can be shared by many Smart Wireless solutions for your plant-wide operations such as field data backhaul, mobile worker, remote video monitoring, and location tracking.

Support for a safety mustering solution installed by Emerson is provided through Emerson's SureService™ organization.

Benefits

Increase Plant Safety. Plant safety is increased by providing accurate real-time mustering reporting – enabling emergency responders to immediately prioritize their next actions depending on the nature of the emergency and the status of your personnel.

Comply with Regulations. Improved regulatory compliance through the generation of timely and accurate mustering reports during mandatory safety drills.

Scalable. Emerson can provide a wireless network solution that exactly meets your needs today, while providing flexibility for future wireless mesh infrastructure growth as your needs expand. Emerson's Smart Wireless Plant Solutions can also scale to the types of applications you utilize in your wireless plant. For example, each Wi-Fi mesh node installed to communicate asset locations back to the central control room can also backhaul remote WirelessHART data, or be used as a "Hot Spot" for your mobile workers to access live plant data, or stream video data back to the control room.

Secure and Reliable Communications. All communications on the wireless plant network are fully secure using AES 128-bit encryption. The integrity of the wireless communication network is continuously monitored and alerts can be sent to administrators if degradation of the wireless signal is detected.

Full Support Service. Emerson SureService provides full 24/7 support for customers who have purchased and deployed a safety mustering solution from Emerson.

Safety Mustering

During an emergency or practice drill, every person's status is automatically confirmed and recorded. Instant reports and maps can be viewed in order to monitor the mustered status of field personnel in real-time.

The system works by having field personnel wear a small active Wi-Fi RFID tag at all times. In an emergency or drill, personnel quickly gather at one of the mustering stations located within the plant. A Wi-Fi access point located at the mustering station communicates with each RFID tag and forwards the wearer's ID, time of arrival, and mustering station number to the central safety mustering database.

Operators in the central control room can monitor the status of field personnel to instantly know who within the plant is unaccounted for. Communications can be directed to those missing personnel to determine their safety and status.

Mustering reports can be electronically generated to accurately report mustering effectiveness and safety regulatory compliance.

Wireless Engineering Services

Wireless engineering services are critical to the success of a wireless plant network deployment. Emerson offers a comprehensive services portfolio to help you design and deploy a wireless safety mustering solution.

Site Assessment

Emerson engineers visit your plant site to conduct a Radio Frequency (RF) study, determine access point locations and collect other on-site information.

Network Design and Planning

Based on the site survey results and your safety mustering system requirements, Emerson engineers design the overall wireless mesh architecture including the detailed network infrastructure, network monitoring tools, and integrated security.

Physical Network Installation Management

Engineers work with you to install the mustering system and wireless mesh network equipment based on the detailed network design.

System Commissioning

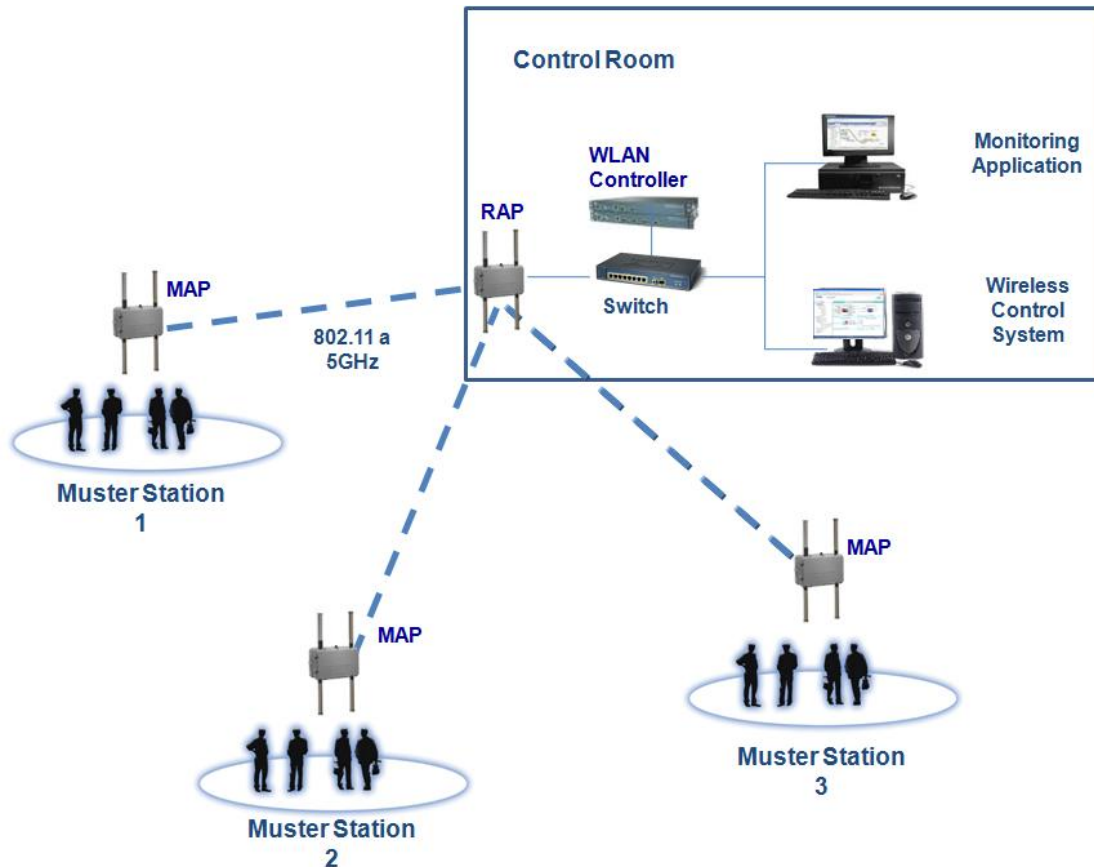
The safety mustering system and wireless mesh network are brought online and commissioned onsite. Complete site acceptance testing is performed with your engineers.

Training

Emerson will work with you to specify a training curriculum that meets your specific needs.

Support

Emerson delivers SureService wireless life-cycle services through our engineering centers and global service organizations. Emerson's wireless life cycle services are designed to help you maintain system uptime, apply wireless technology for better business results and preserve your intellectual and capital investment



Example Wireless Safety Mustering solution architecture

Safety Mustering Equipment

RFID Wi-Fi Tags

The RFID tags communicate their location through the Wi-Fi Mesh network.

Asset View Monitoring Application

This application allows an operator to monitor a dashboard view of those personnel who are onsite, offsite, and those who have mustered at each station.

Wireless Equipment

Wireless Mesh Access Point (MAP)

The MAPs deployed in your plant are Class I, Div 2 or ATEX Zone 2 certified equipment. The IEEE 802.11a 5 GHz radio in the MAP is utilized to wirelessly connect the communications of the wireless clients back to the plant network. The MAP's client IEEE 802.11b/g 2.4GHz radio can also be enabled to give your field personnel "hot spot" Wi-Fi access to your plant or office network applications. The Root AP (RAP) connects the wireless network to the wired one.

Managed Switch

The managed switch is the device which connects the wireless network with the wired network. The wireless LAN controller and wireless control system are also connected through the managed switch.

Wireless LAN Controller

The wireless LAN controller is the device that is responsible for network-wide wireless functions such as security policies, intrusion prevention, RF management, Quality of Service (QoS), and mobility.

Wireless Control System

The optional wireless control system allows network managers to design, control, and monitor enterprise wireless networks from a single location, simplifying operations. It oversees a series of wireless LAN controllers. This software provides network management including diagnostics and troubleshooting tools to keep the wireless network running smooth.

Certifications

Emerson can deploy Class 1 Div 2 or ATEX Zone 2 certified MAPs as a standard solution, or we can provide Class 1 Div 1, ATEX Zone 1 MAPs as an engineered project solution if required.

Intrinsically safe RFID personnel tags are available.

Additional Wireless Plant Solutions

Field Data Backhaul. Using the same Wi-Fi MAPs for your safety mustering solution, Emerson can wirelessly connect your remote Smart Wireless field instruments back to your central control room.

- Mobile Worker. Depending on your needs, Emerson can provide Wi-Fi access throughout your process plant or just in specific locations to connect field personnel with Wi-Fi enabled PDAs or laptops to plant or office network applications.
Video. Easily add video cameras in remote areas of your plant to monitor the process or site for emissions, safety and security.
Location Tracking. Plant personnel can be tracked throughout the plant site with varying degrees of accuracy depending on your site's needs. Emerson's location tracking solution is flexible to provide a good, better, or best capability depending on your site's needs and budget.

Ordering Information

For inquiries and ordering information, please contact your local Emerson sales office. Prior to order acceptance, Emerson will issue a written proposal for your review and approval to ensure that scope, deliverables, timing, and budget meet your needs and expectations.

For more information, please visit our website at http://www.EmersonProcess.com/SmartWireless

To locate a sales office near you, visit our website at:

www.EmersonProcess.com/systems/reach

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