Why Automatic Mustering?

Conventional manual systems such as T Cards, Entry/Exit Logs and Card Reader Systems rely on personnel to make the action of signing in and out

100% tag read rate means no false alarms of missing personnel

Fastest possible certainty of site evacuated - manual systems take much more time due to no overall visibility of total number of people on plant and or at muster areas

Locate missing personnel with pin point accuracy

Improved safety of personnel
Suitable for all Hazardous Process Industries

Offshore Production Platforms, Drilling Rigs, FSO & FPSO

Oil Refineries and Gas Processing facilities

Pharmaceutical and Chemical plants

Any hazardous facility where speed of evacuation and certainty of all personnel being safely off the plant is critical

Intrinsically safe and explosion proof versions of hardware
System Features and Capabilities

Scales from tens to thousands of personnel

802.11 standards based system protects investment and helps with ROI of already installed WLAN’s

Automatic opening and closing of gates on site entrance/exits

Can grow with user requirements to a complete site wide personnel and asset location and tracking solution

Lone worker features such as emergency call button, personnel temperature monitor and motion detection

Web browser based user interface for desktop PC’s and mobile PDA’s

Historical database to review practice or live musters as well as exact location trail around site
Location Tracking – position by choke point detection

In locations such as entries and exits Extronics Tag Exciter causes the tag to transmit and it’s location is then known to be within the field of the Exciter.

Also used for floor differentiation or change tags properties such as turning it off or altering blink rate.
Location Tracking – position by choke point detection

Ideal for use as a Muster Point

Multiple Exciters are used to cover larger areas
Location Tracking – Entrance & Exit Detection & Counting

In locations such as entries and exits two Extronics Tag Exciters can be used together to detect direction of movement.

“In” sequence A then B

“Out” sequence B then A
Location Tracking – Entrance & Exit Detection & Counting

In locations such as entries and exits two Extronics Tag Exciters can be used together to detect direction of movement.

Example of counting personnel into a life boat on an offshore platform.
Location Tracking – Entrance & Exit Detection & Counting

In locations such as entries and exits two Extronics Tag Exciters can be used together to detect direction of movement.

Example of site entrances/exits

Automatic gate opening and closing possible
Location Tracking – position by presence detection

This method of location of an Extronics WiFi tag or WiFi device is zone based, hence only to the vicinity of a particular access point or location receiver.
Location Tracking - position by triangulation

At least three access points or location receivers determine the position of a tag using either the tags’ RSSI (received signal strength indicator) or TDOA (time difference of arrival) of the tag’s radio signal allowing calculation of the location to between 3 to 30 metre accuracy depending on type and density of infrastructure.
iTAG100 Active RFID WiFi Tag

Zone 0 (Class I Div 1 pending) certified for all hazardous areas including gassy mines

Small battery powered tag for tracking people and assets

Motion sensor for tracking if a person or asset is mobile and for battery life enhancement

Call button for emergency assistance and temperature sensor (options)

Up to 4 years battery life
EX2000 Tag Exciter

Safe area indoor version

125KHz field up to 0.5 to 6.5 metres

Can reprogram or activate/deactivate tags

Can be chained to cover wide entrance & exits

Applications include floor differentiation, entrance/exit monitoring, direction and precise location of people/assets
iCITE100 Tag Exciter

Zone 1 & US Class I Zone 1 & Class 1 Div 2

125KHz field up to 0.5 to 6.5 metres

Can reprogram or activate/deactivate tags

Can be chained to cover wide entrance & exits

Applications include floor differentiation, entrance/exit monitoring, direction and precise location of people/assets
WiFi Access Points

Zone 2 or Zone 1 & 21 certified (Class I Div 1 pending)

RSSI – Received Signal Strength Indication based location

802.11 a/b/g WiFi WLAN

Intrinsically safe antenna outputs for connection of Extronics iANT200 antennas

IP66 Marine grade aluminium enclosure

Fibre or CAT5 Ethernet

Options on power supply, lightning arrestor, enclosure heating and cooling
Location Receiver

Zone 1 (Class I Div 1 pending)

TDOA – Time Difference Of Arrival based location for outdoors or large buildings as well as RSSI – Received Signal Strength Indication

Intrinsically safe antenna outputs for connection to Extronics iANT200 series of antennas

Up to 200 metres range with TDOA location calculation principle with 3 to 6 metre location accuracy outdoors
MobileView 4.0

Powerful software platform for true site wide visibility – Modules include:

Locator, Manager, Report Generator & Viewer, Event Engine, Alert Manager, Mapping Tools & User Access Manager

Mobile Gateways for a variety of visibility sources

API for enterprise application integration
Site Overview

Number of people in the plant or a specific plant or area

- Intuitive and easy to use asset search tool
- Search results display asset, category, business status, time of last location, and more
- 3D Map View allows drilling down into specific floors/areas.
- Number of personnel or assets and alerts per area at a glance
Muster Point View

Drill down to each Muster Point and see number of personnel assembled instantly. List of all personnel at a particular muster station.
Locate Missing People

Instantly locate the whereabouts of missing personnel in the event of emergency evacuation procedures.

- Drag columns to set the location of table columns
- Easy to use navigation tools
Historical View

Database stores location data for review at later date

Personnel or asset historical trail along the map and in between maps

Timeline indicates time and date of personnel or asset location at each point
Personnel Management
Easily manage and integrate large numbers of people

- Quick personnel search tool
- All personnel are displayed with icons, name, tag, battery status, location and status

- Import and export lists of thousands of people
- Supports XML, Excel or Text files
Handheld Locator & Manager

Add, edit and remove people or assets

Search for people/assets and view in list or map view

Disconnected mode for users who are not always in WiFi coverage area

Runs on Windows Mobile 5.0 OS

UI designed for stylus free use

Barcode functionality means Tags can be assigned to people or assets in 1-2-3 steps;

Scan Tag barcode – Assign name – Press OK!
Events & Alerts

Create events which are monitored by MobileView

If activated an alert/alarm is initiated with notification by Email, Web Service, HTTP post, JMS Queue, Skype Chat, XML

Alert Viewer
Powerful Reporting

Standard reports as well as customised reports possible

Create reports on people or assets or historical data for printout or export to other applications
Feature Rich API

Easily integrate MobileView into existing site software systems such as SAP, Site DCS, MRP and ERP systems

Variety of methods to facilitate the simplest to the most complex integrations

Standard templates and guides to simplify integration
High Availability Architecture

Support for both hardware and software high availability, database clustering and load balancing of MobileView components.
Product Roadmap

Ultra Wide Band (UWB) location principle support for sub 1 metre location accuracy in dense metallic environments such as processing units and offshore oil platforms

Combined WiFi and UWB Tag with intrinsic safety certification by end 2009

Enhanced personnel safety features such as man down, human life signs monitoring and voice communication
Professional Services

RF site surveys, network planning and cable infrastructure surveys

Coverage performance guarantees to meet your requirements

Documentation to include installation plans, electrical diagrams and “cells of coverage” diagrams etc

Commissioning of Mustering, Location and WLAN systems with benchmark testing to prove performance
Summary

Most flexible automatic people and asset visibility system on the market

100% tag read rate means no false alarms

Multiple location technologies ensures lowest total system cost by applying granular approach to accuracy requirements

Scales from tens to thousands of people and assets

Can be used for telemetry by adding tag based sensors

Web browser software enables system access anywhere

Feature rich API enables easy integration with other software applications such as SAP, MRP, ERP and site DCS