Emergency Head Counting Systems
Emergency Head Counting System (EHCS) : Perimeter Access Control System for the Most Demanding Environments

EHCS from Sieva Networks is a system that enables administrators and safety officials to maintain perimeter access and monitor personnel movement during both regular operation and emergencies. EHCS helps to control and secure the perimeter of their facilities and access to sensitive areas. EHCS is particularly suited for mission critical facilities such as nuclear reactors, oil and gas plants, ammunition depots etc. All personnel are supplied with identification badges that are certified to be compliant with the most rigorous standard for use in explosive and hazardous environments (with ATEX certification). EHCS automatically tracks movement and provides information about how many have entered a zone, left a zone and how many are currently in a monitored zone. EHCS can issue automatic alerts when the number of people in a given area exceeds what is permissible. EHCS provides a wide latitude for the type of alerts issued and even an employee running in the plant can trigger an alert.

Applications

- Oil and Gas plants
- Nuclear Reactors
- Ammunition and Armament Depots
- Industrial Chemical Plants
Facility Critical Area

- Critical Area to be monitored has several ENTRY/EXIT doors (marked in the diagram as A, B and C)
- The objective of EHCS is to try to monitor who is currently within the Critical Area as well as create logged data for who was there earlier and the amount of time they were in there
- To create alerts if someone is in the Critical Area location for more than an ascertain amount of time OR if there is safety violation within the Critical Area, to figure out who is within the Critical Area to pass it on to First Emergency Responders

Illustration of how EHCS can provide monitoring in real-time at different locations of an entire facility

Critical Areas to be Monitored in an Entire Facility Floormap
Emergency Headcount CHECK-Tag

- All entrances as well as strategic points are fitted with a CHECK-Tag©

- CHECK-Tag© is an extremely durable passive RFID tag (that can withstand high temperatures) that stores the number of people that have gone past a certain point and also stores location information. The data is programmed into the tag by the basestation.

- During a catastrophic event that disrupts normal operation and power supply (e.g. an earthquake, an accident, system shutdown), CHECK-Tags© enable first responders and safety personnel to identify the number of people that have gone past a certain point. The information available enables rescue operations and to plan next steps in a mission critical situation.

- CHECK-Tags© use Sieva Network’s unmatched high endurance memory IP that enables program cycles of 10 Million to 100 Million times (which is at least 100x of what is possible with any other RFID tags available today) enabling long lifetimes in excess of 50 years. CHECK-Tags© can also be built into concrete during the building’s construction.
EHCS Completely Integrated With SievaSync

SievaSync application flow diagram

Emergency Head Counting Systems

Office Equipment Inventoring

Monitoring Tools

Wireless Safety Systems for Gas Detection

Monitoring Parking Lots and Real-time Product Distribution Vehicles

Wireless Temperature Monitoring

SievaSync Application Layer Gateway

Customer ERP System/Database Management Systems

SievaOilTrac
SievaDeterrance
SievaFleetTrac
SievaPortSecure
SievaPharmaTrac

SievaSync Application Layer Gateway

Business Integration – SAP/Oracle

Warehouse & Stores Management
Manufacture & Fabrication
Supply Chain & Logistics Control
Operations & Safety Management
Maintenance, Inspection and Repair