

Claims

A Rapid Warning & Evacuation System (RAWES)

Hardware consists of:

1. The server, interface controller and switch router.
The Server – it houses the RAWES software that communicates with the other equipment via network connectivity.
The Switch Router – it routes the messages from the interface controller, display panels and emergency break glass to the Server and vice versa.
The Interface Controller – it integrates to the control and monitor systems to detect hazardous signals.
2. The flexible LED display panel c/w built-in processor and heat sensor. The built-in processor takes command from the Server on what messages or signs to display. While the heat sensor will gauge the surrounding temperature. When a temperature of 40°C or higher is detected it will send a signal to RAWES to activate the display in **RED**. The default temperature is 40°C and is configurable.
3. Emergency break glass provides the option to manually activate RAWES should the alarm and monitoring systems are not functioning or are slow to react. This activation will also cause the display to turn **RED**.
4. The alarming & monitoring system can also cause the display to turn **RED**. However, this is only possible if the activation provides the location of the disaster area.
5. Network for connectivity of all the RAWES related equipment and devices.

Software consists of 4 modules:

1. Design module
It's used to design the display panel routing with the help of the office floor plan. It will show the display panels and emergency break glasses located at each floor and corridor of the building. An ID will be assigned to the devices.
2. Configuration module
It's for configuring the settings for messages, signs, GUI, screen colours, integrating devices, heat temperature, etc.
3. Integration module
This modules provides the platform for any alarm and monitoring systems such as fire, CCTV or security card access to integrate to RAWES via a software development kit (RAWES SDK).
4. Display module
The display module allows the creation and maintenance of messages and signs for the display panel.

Functions and features:

1. The key function of RAWES is to provide a visual display of a warning and evacuation path to a safe location. Complementing a fire alarm system it is an ideal system to safeguard human lives.
2. It can integrate to other alarm system such as fire alarm, PA, Siren and CCTV to activate RAWES. RAWES can be used to activate the Security Card Access System to auto open all the EM Lock doors.
3. It's can also be manually activated through the emergency break glass.
4. It's equipped with programmable creation and configuration of the evacuation routing.
5. It has GUI interface to display the routing and disaster signs. It can also display the camera image from the CCTV (if there is an interface) of the disaster area.
6. Using UTP cable for connectivity.
7. It have different colour to differentiate danger (**red**), safe (**blue**) and escape (**green**) zones. The heat sensor located in the display panel will be used to determine level of safety. During an evacuation, people will follow the **blue** arrow sign until they see a **green** sign. They are to move away from the **red** sign. This is how RAWES helps to ensure a safe passage away from the disaster area.
8. There are also different type of sign display such as arrow, no entry, exit, etc.
9. In a normal situation the LED panels can be programmed to display running messages.
10. There is built-in intelligence to direct the evacuation through the escape routing but avoiding the disaster area.
11. Maintain the identification of the display panel example by floor by section by display number eg, 01-01-01, 01-02-02.....