Block Diagram -Typical Fire Alarm Monitoring System

The serial connection from the ESC 8100 receiver to the EMC workstation computer operates at 38.4K baud.

Buildings that contain inelegant or addressable systems are slightly different in that the ESC 8240CMS will monitor the Alarm, Trouble and Supervisory as well as processes the device data directly to the EMC workstation via the ESC Data Input Module connected to the 8240CMS transmitter.

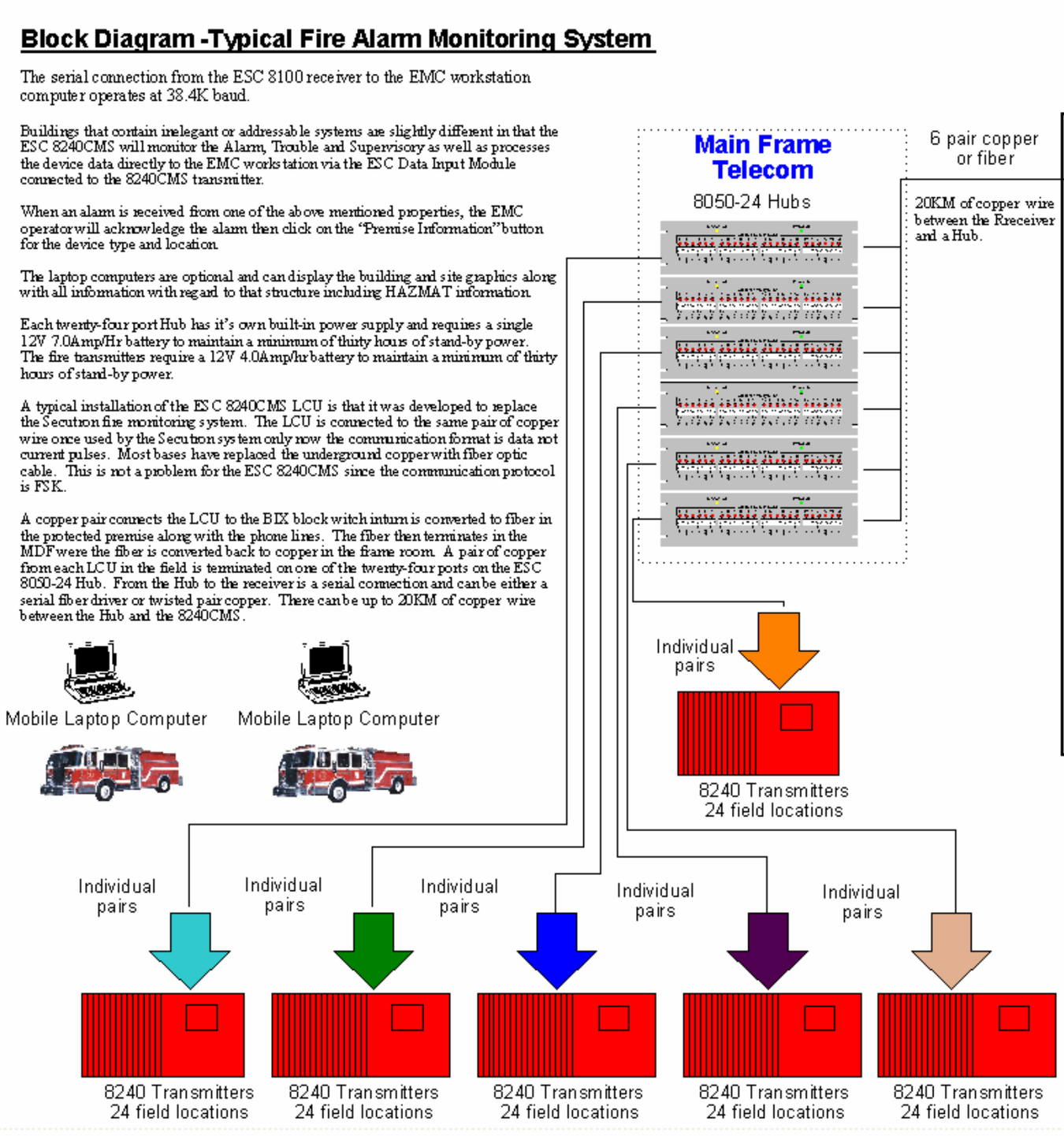
When an alarm is received from one of the above mentioned properties, the EMC operator will acknowledge the alarm then click on the "Premise Information" button for the device type and location.

The laptop computers are optional and can display the building and site graphics along with all information with regard to that structure including HAZMAT information.

Each twenty-four port Hub has it's own built-in power supply and requires a single 12V 7.0Amp/Hr battery to maintain a minimum of thirty hours of stand-by power. The fire transmitters require a 12V 4.0Amp/hr battery to maintain a minimum of thirty hours of stand-by power.

A typical installation of the ESC 8240CMS LCU is that it was developed to replace the Secutron fire monitoring system. The LCU is connected to the same pair of copper wire once used by the Secutron system only now the communication format is data not current pulses. Most bases have replaced the underground copper with fiber optic cable. This is not a problem for the ESC 8240CMS since the communication protocol is FSK.

A copper pair connects the LCU to the BIX block witch inturn is converted to fiber in the protected premise along with the phone lines. The fiber then terminates in the MDF were the fiber is converted back to copper in the frame room. A pair of copper from each LCU in the field is terminated on one of the twenty-four ports on the ESC 8050-24 Hub. From the Hub to the receiver is a serial connection and can be either a serial fiber driver or twisted pair copper. There can be up to 20KM of copper wire between the Hub and the 8240CMS.



The Event Management Centre processes all incoming signals from the local control units (LCU) in the field. The EMC operator can acknowledge the signals and either create a dispatch event or shunt the zone if it is a nuisance signal. If the remote workstation is connected to the Fire Department, all trouble and supervisory signals are displayed on their workstation as well.

In order to implement this system the following information is required in the following formats:
Floor plan graphics can be supplied in AutoCAD, JPEG, TIF, GIF, WMF etc.
Site plans to be supplied in either AutoCAD or Shape Files.
Geo-Coordinate X Y or Latitude/Longitude for building and fire hydrant location.
Civic address and full name of the building along with any S.O.P. documentation for that building.

Database storage is on the DELL 1800 series SQL RAID server communicating through a D-Link router to the primary workstation at the base Fire Hall. A fiber LAN driver connects the remote EMC workstation to this srerver.

Print on 11 X 17 paper