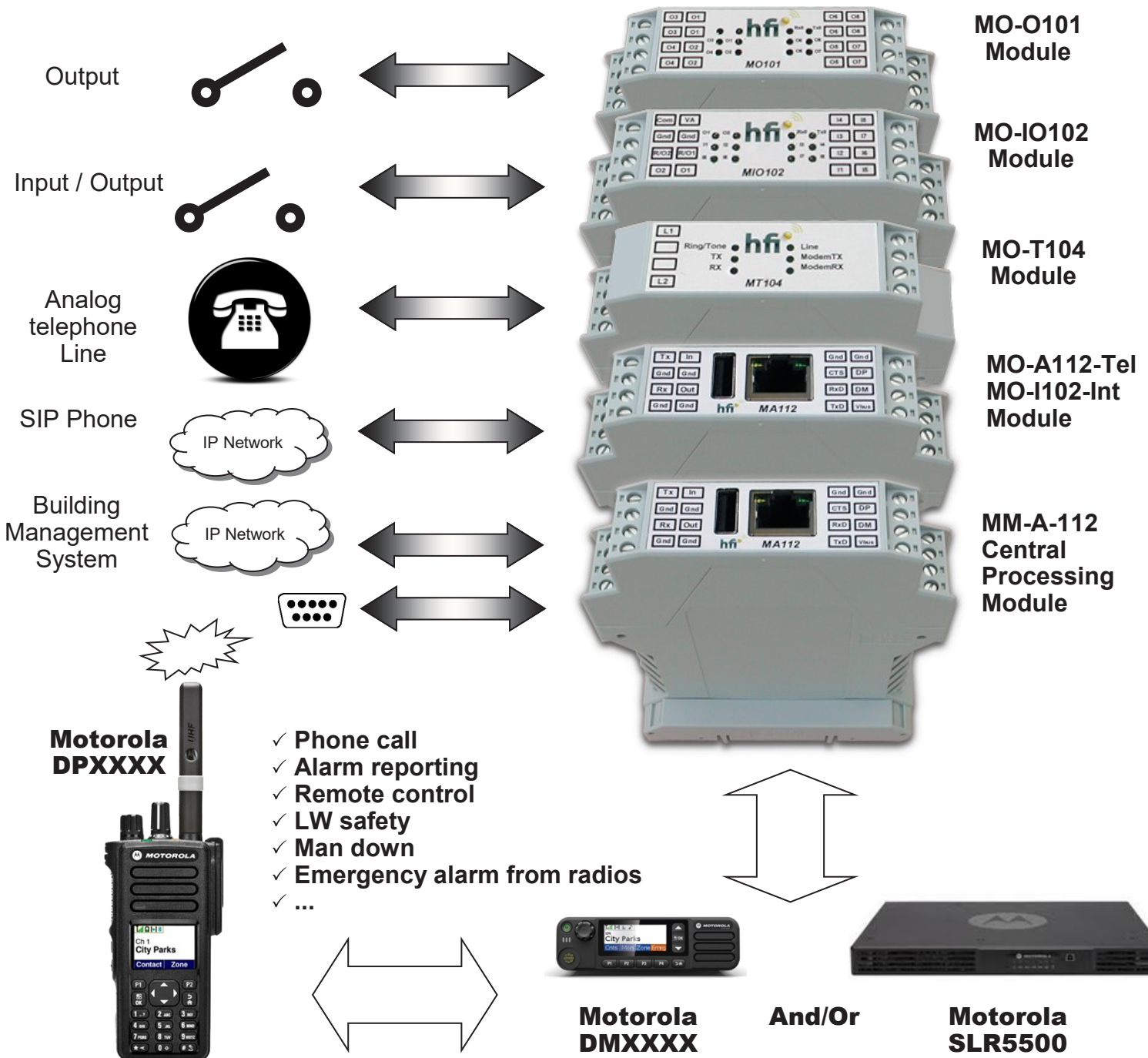# hfi

Mikado LT

Fully modular interface system with MOTOTRBO Radio

Build yourself the system you need for your Motorola radio applications:
Alarm reporting, Remote control, phone interconnect, Lone-worker safety, Emergency and man down alarms from radio

Autonomous or with supervisor PC !

Output — **MO-O101 Module**

Input / Output — **MO-IO102 Module**

Analog telephone Line — **MO-T104 Module**

SIP Phone — IP Network — **MO-A112-Tel MO-I102-Int Module**

Building Management System — IP Network — **MM-A-112 Central Processing Module**

Motorola DPXXXX

✓ Phone call
✓ Alarm reporting
✓ Remote control
✓ LW safety
✓ Man down
✓ Emergency alarm from radios
✓ ...

Motorola DMXXXX   **And/Or**   **Motorola SLR5500**

The MM-A112 HFI module is the Central Processing Module of the Mikado-LT radio interface and alarm reporting system.
The MA-112 can be used as a simple IP capable interface for PC server applications (TMS gateway, Indoor/outdoor Localization software interface), or as the core of an autonomous system in combination of other HFI modules to extend functionalities (I/O, Phone, LW safety, man down, emergency alarm from radios ...)

It is easily configurable and firmware can be updated via a built-in web interface.

Mikado-LT is also very easily hardware upgradable: just connect additional phone and/or I/O modules to increase capacity of the system (no need to update software or to return your hardware to factory)

Deployment on single or multiple user sites can be done remotely using internet access if available, or using simple "USB auto-configure key".

This module is based on an ARM processor and Linux embedded OS. The following connections are supported :
- ✓ 10/100M Ethernet to connect LAN for configuration, remote control and connect a host system (Business Management System, protocol : ModBus or ESPA 4.4.4)
- ✓ USB to control a mobile radio station (Motorola MOTOTRBO)
- ✓ Analog I/O to connect MA built-in sound system to mobile radio or repeater
- ✓ USB to update or extend message storage
- ✓ Serial Communication port RS232 to connect a printer, host system (Building Management System, protocol : ModBus or ESPA 4.4.4)

Order information :
- H-MM-A112: Mikado LT ARM Processor Module

Delivered with Accessories :
- power connector ref: 56207
- 4 connectors 4pts ref: 56223

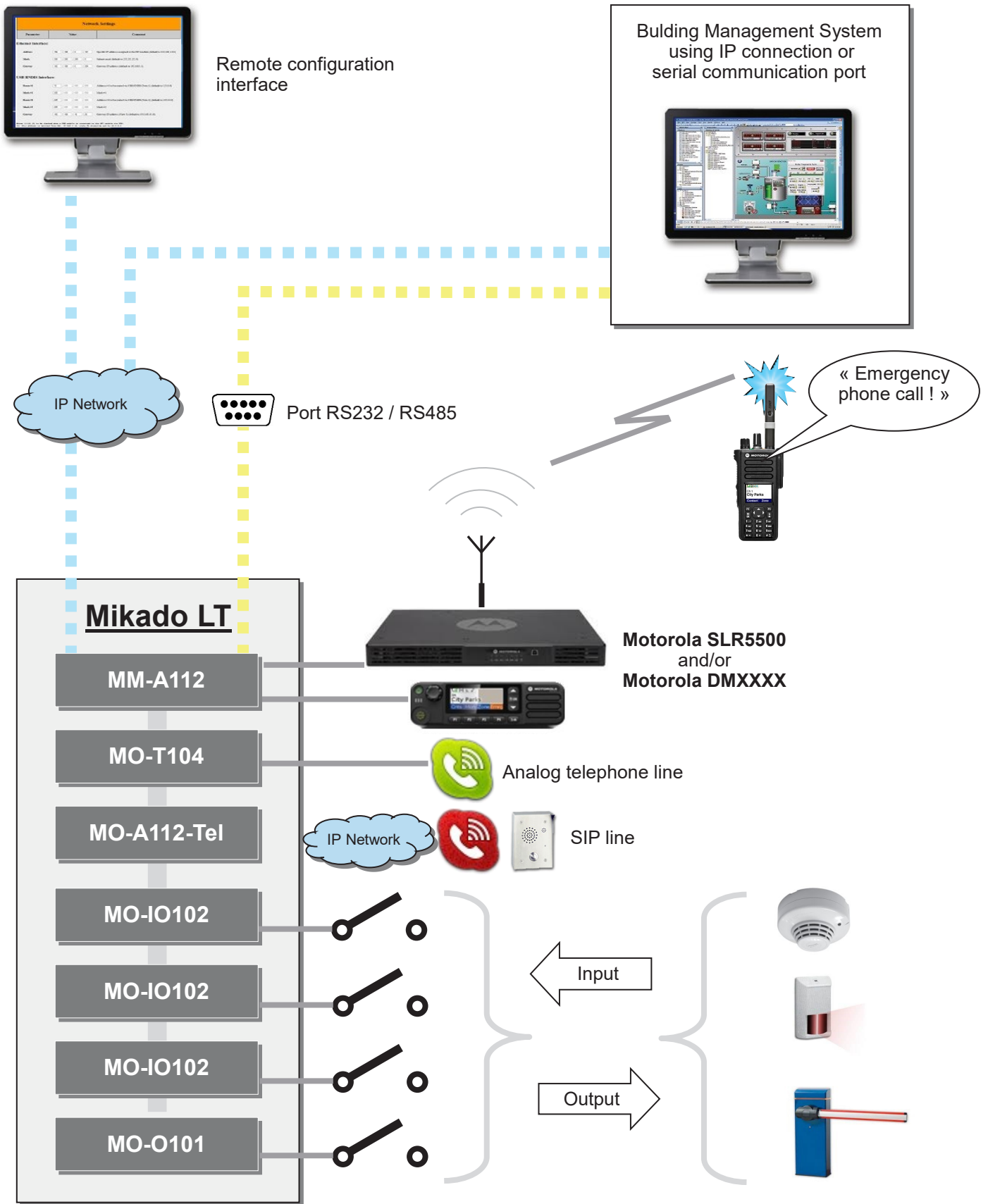| **MM-A112**	**MO-T104**	**MO-IO102**	**MO-O101**	**MO-I102-Int**
Central Processing With SIP UA&Proxy Module Up to X1	Analog Telephone Interface Module Up to X2	8 input / 2 output Module Up to X10	8 output Module Up to X10	Intercom Module Up to X2

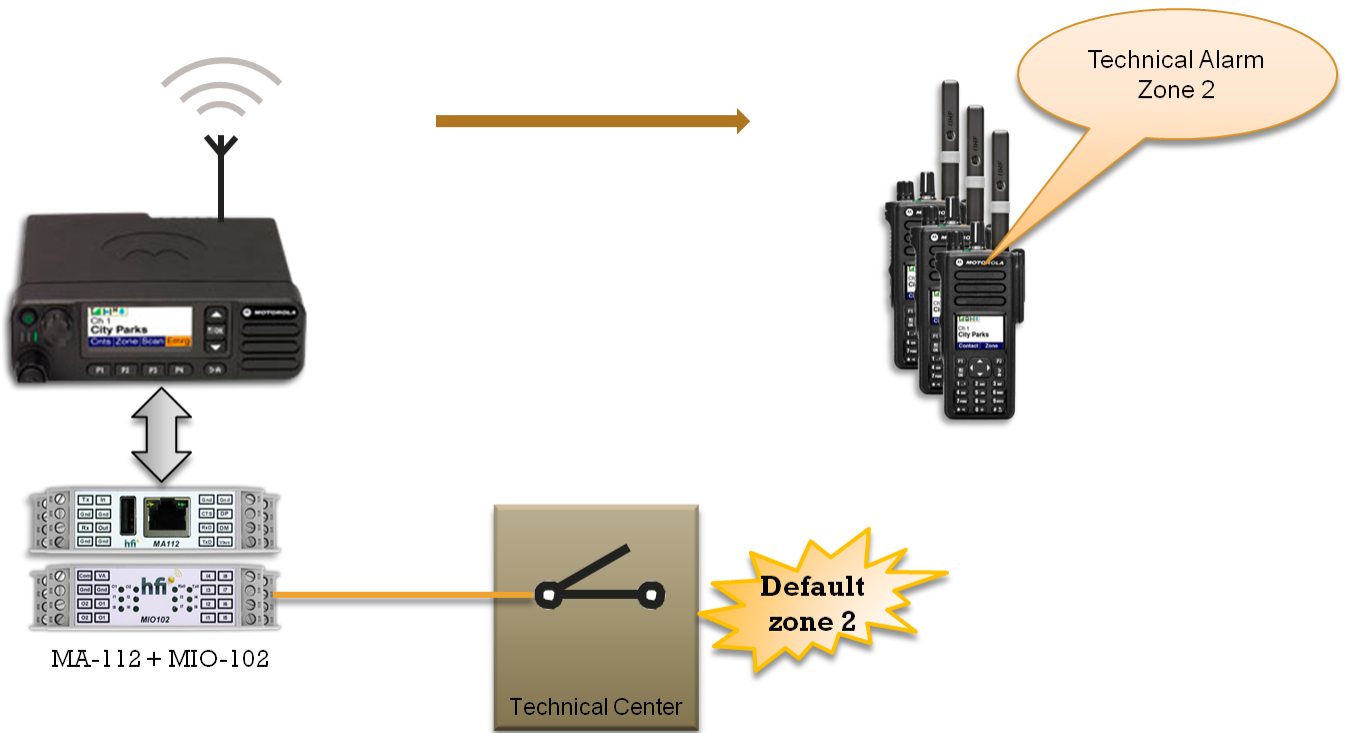Remote configuration
interface

Bulding Management System
using IP connection or
serial communication port

IP Network

Port RS232 / RS485

« Emergency
phone call ! »

Mikado LT

MM-A112

Motorola SLR5500
and/or
Motorola DMXXXX

MO-T104

Analog telephone line

MO-A112-Tel

IP Network

SIP line

MO-IO102

MO-IO102

Input

MO-IO102

MO-O101

Output

Technical Alarm Zone 2

Default zone 2

Technical Center

MA-112 + MIO-102

1.Alarms Reporting System with dry contacts

Phone call P3 !

MA112 + MT-104

2. Radio/Phone Interconnect

Zone A

New…
… iBeacons

DR3000 Repeater

DPxxx with RF800-MD4
option board

Mandown
Alarm
Zone A

Phone
Dialler

Alarms transmission
to the Management Unit

MA-112 + MT-104
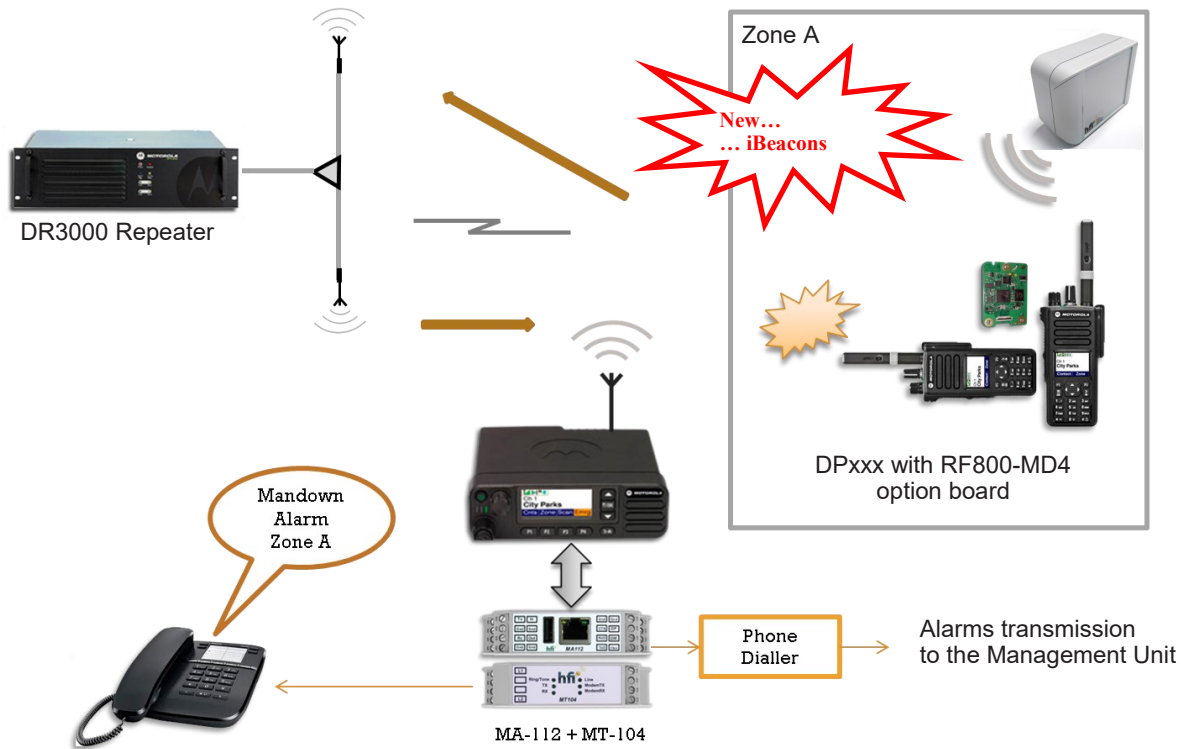
3. Lone-worker safety system with Indoor Localization

Fire Alarm
Technical zone 3

MA-112

ModBus/ESPA 444

IP Network

FIRE

RS232 / RS485

Alarms Management Unit
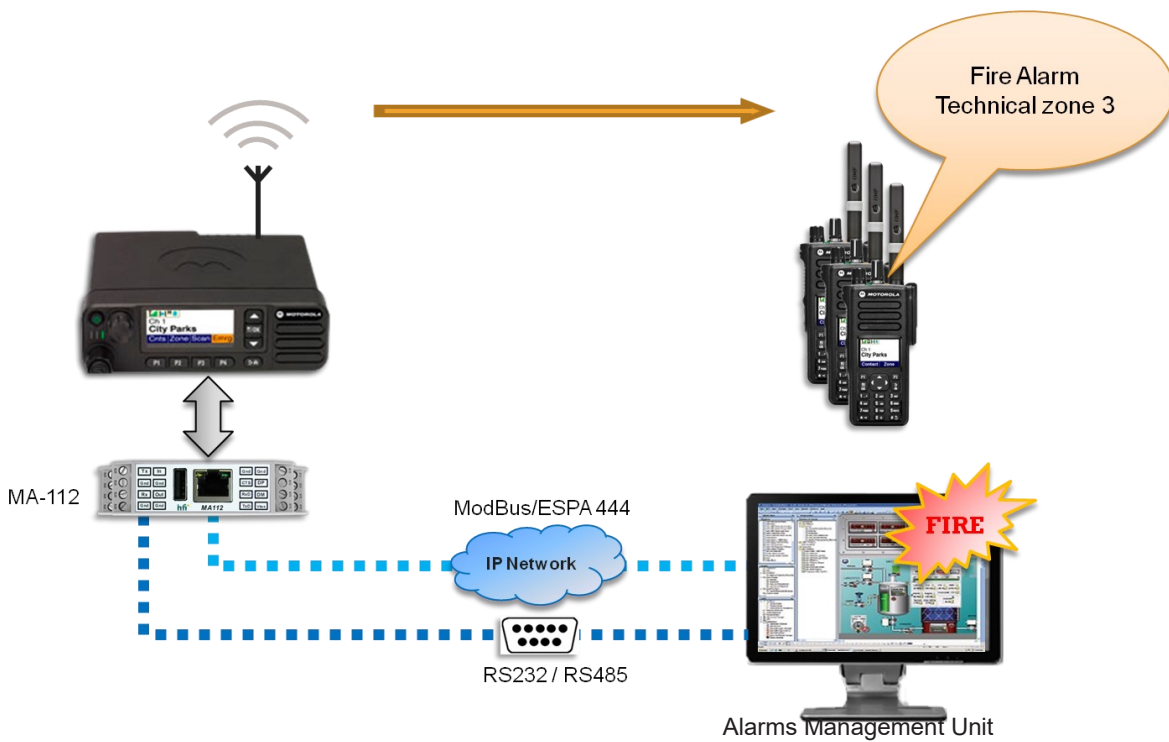
4. Alarm reporting System

The configuration of the Mikado-LT is performed with the built-in web interface. The MA-112 Module must be connected to the LAN network or to a PC to allow the use of an internet browser.

The main menu allows to access several forms to setup the system :
- ✓ Select **Mikado-LT Application** : setup and select Mikado-LT functionalities
- ✓ Select **SIP Phone Application**: setup and select SIP Phone/Intercom application
- ✓ Edit **Network Parameters** : set parameters of Ethernet and USB RNDIS IP networks
- ✓ Edit **Modbus Parameters** : set parameters of Modbus Protocol
- ✓ **History log file :** view, open or download log file (text file)
- ✓ **Update & Backup** : update firmware, voice messages, ... and backup system settings
- ✓ ...

Save Changes	Reset Changes	Restart Phone		Home

MIKADO LT SIP Phone Settings

Parameter	Value	Comment

Accounts

HFI <sip:6000:password@hfi.fr>;outbound="sip:192.168.1.253"

Format : *Displayname <sip:user:password@domain;uri-params>;addr-params*
Example : *HFI <sip:0476031010:password@hfi.fr>*

uri-params:
;transport=

addr-params:
;auth_user=username
;medianat=
;outbound="sip:primary.example.com;transport=tcp"
;ptime=
;regint=3600
;sipnat=
;stunserver=stun:[user:pass]@host[:port]

General Specifications

- Module Size : 115 x 100 x 25 mm
- Module Weight : about 150 g
- Operating Temperature : -10 à + 50° C
- Storage Temperature : - 30 à + 80° C
- Power Supply : 12 V (nominal)

- MA-112 : 100 mA
- MT-104 : 100 mA
- MIO-102 : 100 mA
- MO-101 : 100 mA