By: *Over IP Ital East Engineering Group*

System applicable without infrastructural intervention

Because it uses the power system as its local network infrastructure

SECURITY

Regulations and requirements for fire detection

Fire detection in the hotel sector : laws and decrees

The main laws regarding fire safety in the hotel sector are:

Ministry Decree of April 9, 1994:

Approval of the technical rule of fire prevention for the construction and management of tourist accommodations and hotels

- expiration postponed to December 31, 2005

- establishes the technical rules on the subject of fire prevention in the field of tourist accommodations and hotels. The law defines the obligations and criteria of security to be applied in the rooms and buildings used for accommodations with more than 25 beds

Ministry Decree no. 626 of March 10, 1988:

General criteria of fire safety and for the management of emergencies in workplaces (law 626)

- in addition to hotels, this applies in all workplaces, even where there are fewer than 15 employees. The decree imposes a series of obligations on the subject of safety and also establishes the roles and responsibilities of every individual: user, worker, safety worker, safety manager, owner

Fire detection : regulations in the sector

The reference standards for the sector of fire detection are:

- UNI EN54

  the articles of this standard establish the main construction features of the devices for fire detection. It is a standard relative to product characteristics

- UNI 9795

  this standard establishes the conditions for installation, the type, number and position of the detectors and devices generally connected with a fire detection system. It is thus a standard relative to installation and design features

a) With regard to furnishings and construction materials, the products used must have flame retardant features (fireproofing)

b) With regard to compartmentalization, it is necessary to ascertain the resistance to fire (REI) of the various parts of the structure including stairwells, elevators, room doors which must
"have characteristics of at least REI 15 with automatic closing devices. The room doors need not comply with REI 15 when the structure is protected by an automatic fire detection and alarm system installed in the hallways and rooms used by guest."

c) The structures must not exceed the maximum capacity and escape routes must be provided for evacuation in case of emergency

d) The areas at specific risk must be protected (e.g. storerooms)

Alarm system

The buildings must be equipped with an acoustic alarm system that can be heard by all occupants, capable of warning the guests and personnel of hazardous conditions in case of fire.

Extinguishers and fire-fighting equipment

Portable extinguishers   Fire hose system

Fire detection and alarm systems

In structures with over 100 beds, installation of a fixed system for automatic fire detection is compulsory. In storage areas, regardless of the number of beds, these systems must always be installed. In other cases, the installation of an automatic fire detection system will obviate the need for RE15 doors in the rooms.

The alarm signals produced by a detector must provide optical and acoustic fire alarm signals at the control unit, which must automatically set off the fire alarms in the structure

Fire detection: safety management

Safety management

The manager of the structure is required to ascertain that, in time, the safety conditions remain unchanged and the fire-fighting equipment in good working order; maintenance must keep the systems and equipment in good conditions and tests should be carried out at least every six months. In particular, controls for fire safety should include periodical testing of the systems, at least once a year.

Personnel training

In case of fire, the personnel must be trained to use the equipment correctly for prompt intervention. The personnal must attend training meetings at least twice a year for instruction in the use of the rescue equipment and practice in evacuating the building on the basis of the emergency plan.

Registration of inspections

A log must be kept of all the operations of inspection and testing of the electrical devices, illumination, safety equipment, fire detection systems and meetings for training and practice in evaculation. The log must be kept updated and available for control by the provincial fire department officials.

Safety instructions

Instructions to be displayed for the personnel and public, at the entrance, on every floor and in every room, with exact instructions about what to do in case of fire. The instructions must be provided in Italian and some foreign languages, taking account of the origins of the habitual clientele

Controls
and
Functions

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Fire detection system

- Provides "active" protection of the structure
- Makes it possible to omit installation of doors with RE 15 characteristics (RE 30 for new buildings) in the rooms
- Costs less on the average than RE 15 doors

Types of fire detection systems

1) Traditional chain system

This is the classic system that requires connection of sensors and optical acoustic alarms directly to the central control unit, each with a line that necessitates a high-impact installation process

2) Serial bus system

Uses sensors connected on a single serial line (in-out connection) which reduces the wiring but is not flexible in case of later alterations

3) Parallel bus systems

Uses addressed sensors and/or special addressing units connected on a single line with parallel connection (closed loop or other type of line) with reduced wiring and maximum flexibility

8HS systems on bus line

Addressed digital system to transmit information relative to alarm status or operating thresholds.

Transmission is two-way (call/answer) with permanent interrogation.

Requires one line and ensures maximum compatibility with remote devices to create systems of High Security with fire detection, burglar alarm and control of power loads.
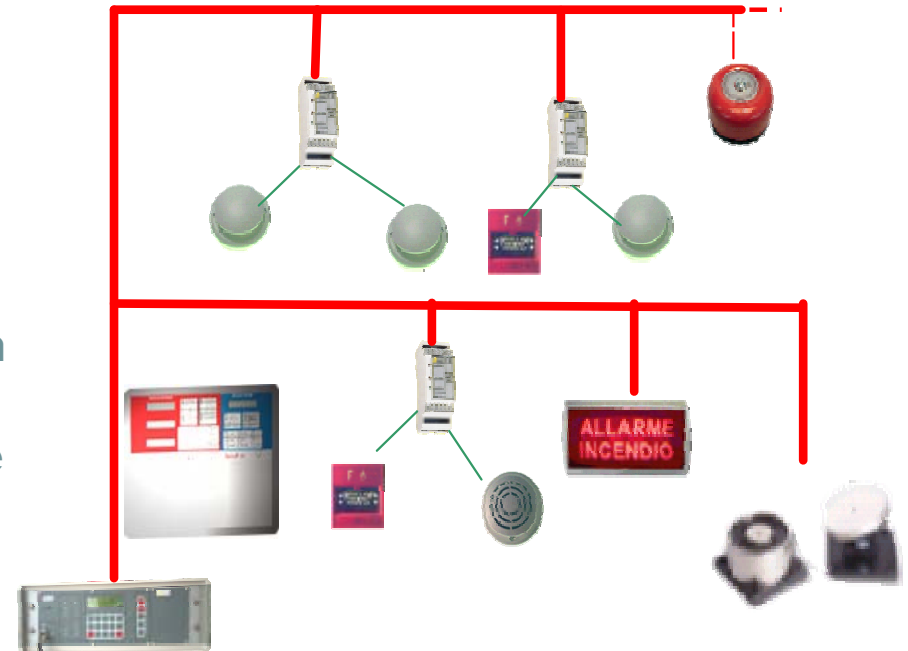

The system is an "open" type, with guaranteed compatibility and management of sensors of different brands and types.

Maximum transmission speed (about 1.5 sec. for a line with 252 sensors)

8HS system elements

Microprocessor control units to display and manage signals and alarms: SIRIUX or RX8/HS control unit

Peripheral data acquisition units for sensor connection and signals with input and output control units: PT4 and PT2 logic
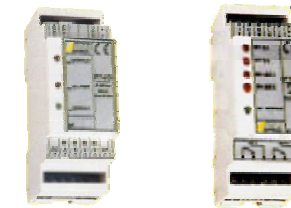
Smoke detectors, temperature sensors, manual keys, gas detectors and smoke barrier

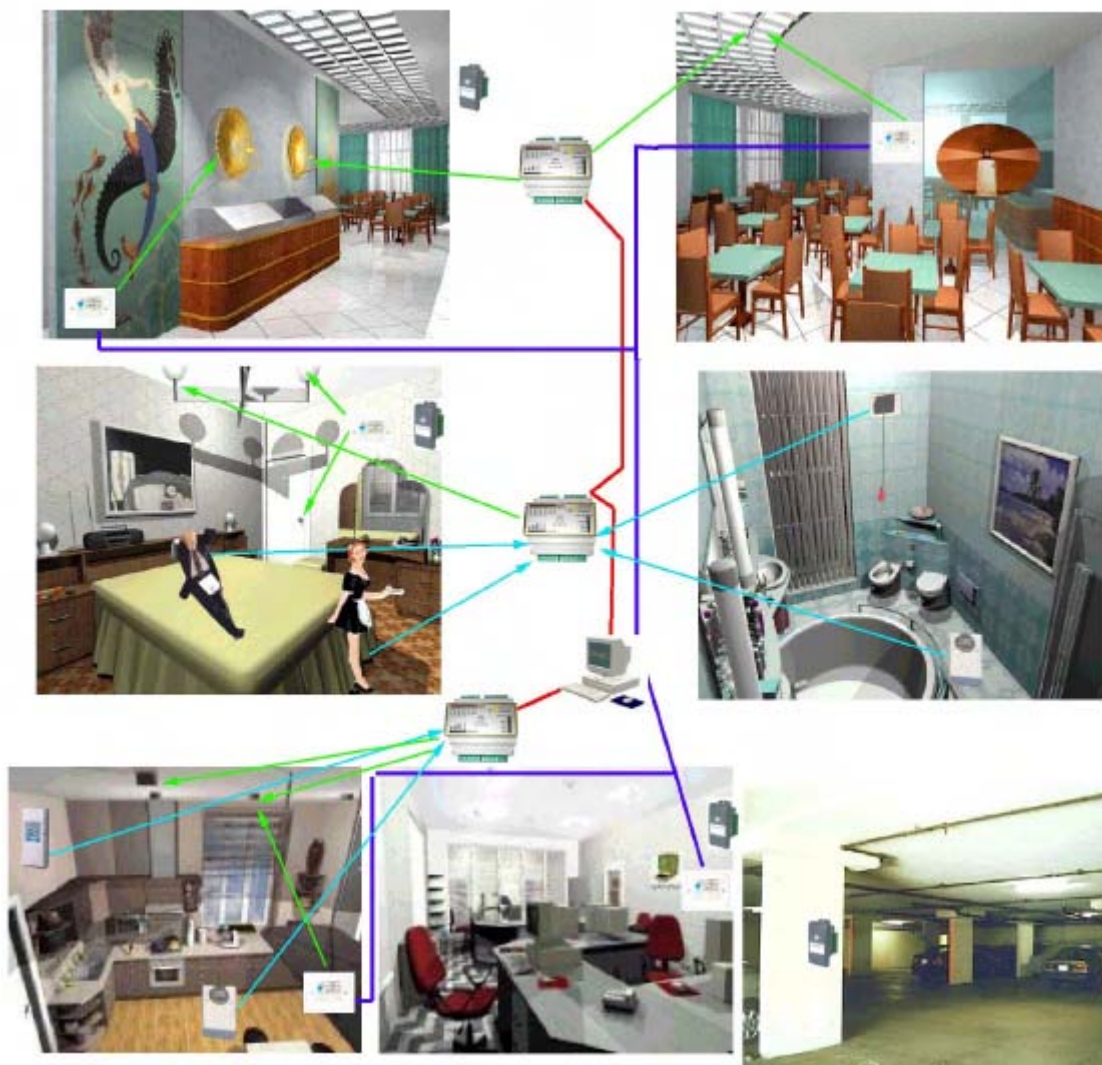Optical/acoustic alarm, electromagnetic stops for fire doors

12

REMOTE CONTROL

of areas and

infrastructures

- Control and management of power loads for energy savings
- Management of client and personnel detection
- Control of client and chambermaid access with proximity reading
- Control of common accesses
- Technical and safety signals

With devices on RS485 serial line, 8HS bus line or Conveyed Wave line

**Detection and signaling of fire and gas leaks:**
- Optical smoke detectors
- Thermal detectors
- Smoke and/or heat barriers
- Keys accessible by breaking glass
- Liquid detectors
- Natural-LPG gas detectors
- Bells
- Electromagnetic stops
- Optical-acoustic boxes
- Sirens
- Alarm transmission

With 8HS bus line devices and the new SIRIUX control unit

- Fire and burglar alarm in hotels, offices and industrial plants

With 8HS bus line devices and RX8/HS or SIRIUX control unit

SIGNALING AND SAFETY
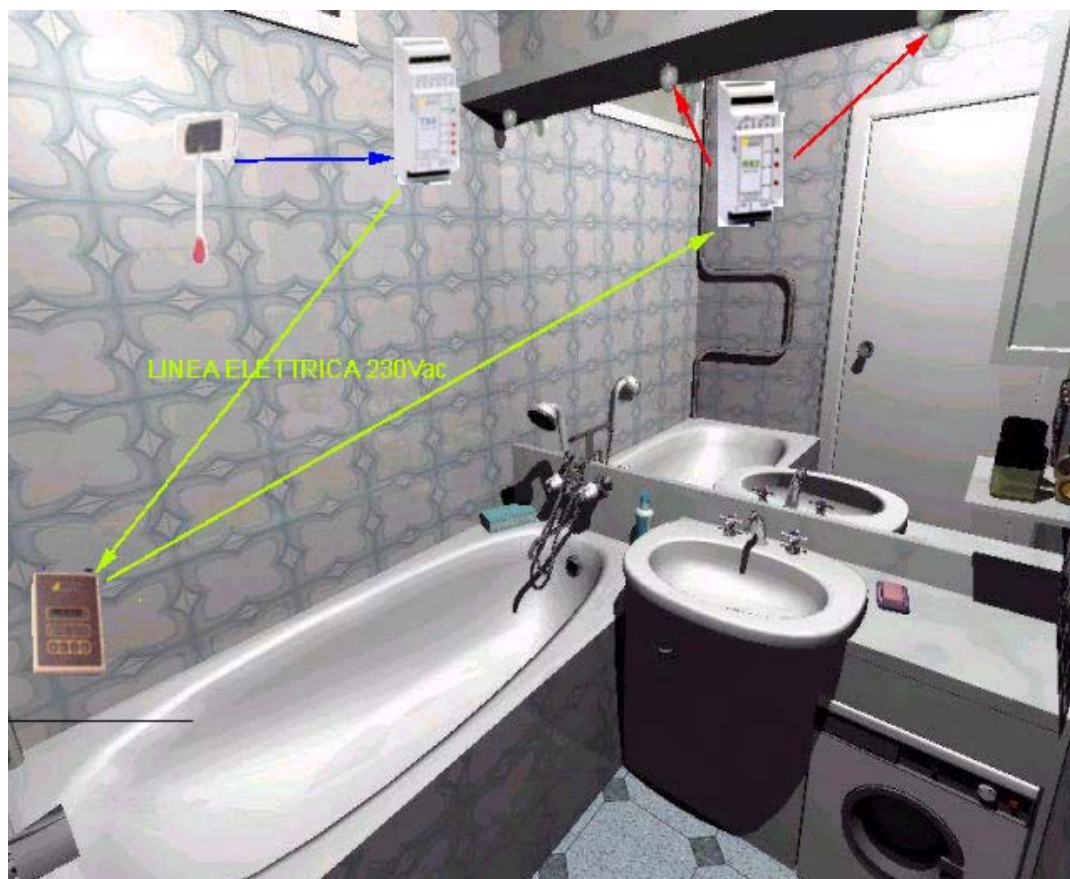
- **Technical alarm signals**
- **Rescue calls in hotels, offices, rest homes and hospitals**

With devices on 8HS bus line or Conveyed Wave line

Examples of applications
in hotel structures

HOTELS

Types of installations:

- Fire detection
- Control and management of power loads
- Control of technological devices
- Hotel power management
- Emergency signals
- Access control and burglar alarm

A few references:

Hotel Cosmopolitan – Rome
Hotel Cilicia – Rome
Hotel Imperatore Adriano - Rome
Hotel Petit (Turin)
Hotel Terme Castaldi – Ischia (NA)
Hotel Majestic Palace- Sorrento (NA)
Hotel Punta Molino – Ischia (NA)
Hotel Cormorano – Baia Sardinia (SS)
Hotel Punta Est – Baia Sardinia (SS)
Hotel Mediterraneo – Cattolica (RN)
Hotel 3 Stelle – Gabicce (PU)
Hotel Belvedere – Milano M. (RA)
Hotel Rio – Milano M. (RA)

Hotel Cormorano

Hotel Belvedere

Hotel Radar

Hotel Punta Est

Hotel Majestic Palace

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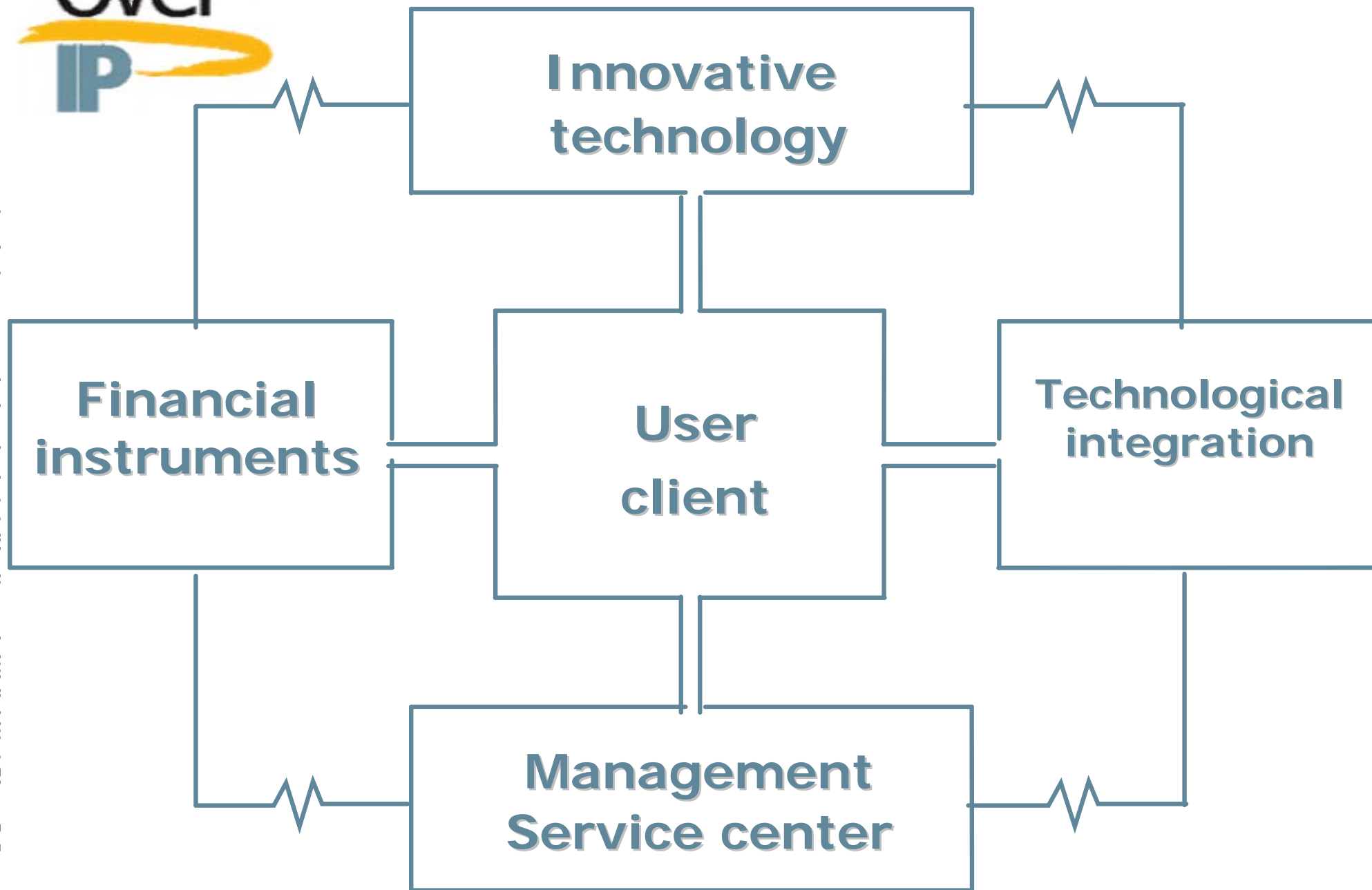## Tel. 051.232009
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Over IP - MISSION

❑ **Over IP** works on two important, strategic markets for the innovation of **Energy and Information Communication Technology** developing and providing services and systems for the benefit of the public. Its primary goal can thus be said to be **social utility**.

❑ **Energy:** with systems that ensure a combination of better service to the users and real economic and energy savings for the utility companies, **Over IP** creates direct benefits and savings for the public.

❑ **ICT:** with projects and systems developed to improve assistance and the effectiveness of the services developed for socially important sectors useful to the public such as health, "homeland security", etc.

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