RFID_VIDEO_S

Integrated system for video surveillance, access control and prompt location of events

kyema
The swiss RFID solution

The Company

Kyema is a solution provider specialising in Radio Frequency Identification technology (RFID).
Kyema is the industry's main player and one of the few at a European level to have supplied turnkey RFID solutions that are both transactional and use contactless card infrastructure for payments and monitoring.
Kyema supplies services and solutions based on RFID architecture that allow companies to efficiently manage systems of security, counterfeit prevention, supply chain, payments, transactions, asset control, inventories, access and location etc.
Kyema's experience is unique throughout a wide variety of applications and sectors. Kyema is able to respond to clients' specific needs, supplying:

- Advice on system architecture and integration with company systems and processes.
- Specification definition, selection and installation of hardware, software and middleware components.
- A specially realised design for the client where solutions are not already available.

Control system for images linked to the use of badges with an RFID transponder

Kyema's system of high security access control is aimed at structures and environments which require a high level of protection for areas that contain data or industrial equipment and/or structures and in which critical processes and operations are carried out that need to be protected from intrusion, tampering or fraudulent operations brought about by access from non-authorised persons. Where access control using identification cards is insufficient, since they may also be used by third parties, and where certain resistance to the general use of biometric surveillance has not yet been overcome, Kyema has developed an integrated system of RFID surveillance technology combined with the simultaneous video surveillance of what is happening at the access point at the moment when access is requested. IP cameras do not record in a continuous cycle; using a motion detection algorithm they are activated to adapt to the scene being recorded.

When movement is recorded, the images (with a preset configurable frame) are transmitted via a local network and registered on the video server.
At the moment in which a reader records the presence of an RFID tag, its ID (a unique number) is read and the event is memorised by the access control software.

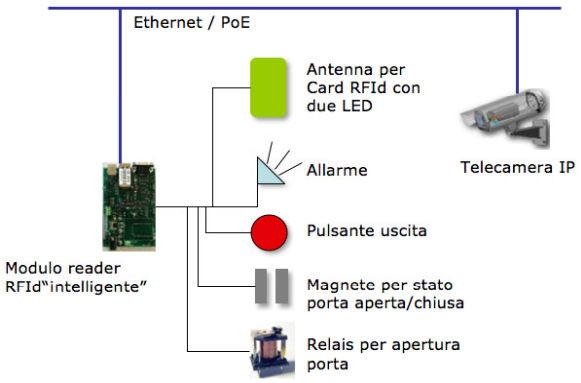

Diagram showing control of a door / gate

The architecture of the security control system requires a video surveillance system and the use of radiofrequency RFID badge readers to activate the doors of the various areas. Each RFID badge reader is able to command an electronic lock and can be connected to the Ethernet network to be integrated with the supervision system. It also controls the internal door-release button, the alarm (buzzer) and the magnet (sensor) to read whether the door is open or closed.

The control devices for opening the doors are managed by a gateway used to send the codes of the read cards and to read the state of the doors and the alarms, which are reported to the existing general access control system.
This is used in particular to supply services of:

- Asset Management.
- Monitoring.
- Recording events.
- Security.

The system comprises:

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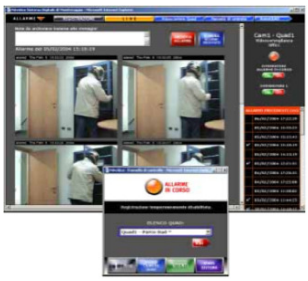
- Cameras with Ethernet IP interface.
- Video server (bi-processor server PC and software) for continuous recording of images on hard disk.
- Antennas / readers for the detection of RFID tags in card ISO format with micro-control board for door release, alarm signals, door open or closed magnet, door release button.
- Card format ISO RFID at 125KHz or 13.56 MHz ISO 14443A (Mifare) for staff.
- Server and gateway software for the management of RFID readers integrated with the existing access control software.
- Search procedure for events and display of footage.

System components

1- EasyAccess reader

The EasyAccess reader is able to read ReadOnly transponders and type Rw22 and RW35 ReadWrite transponders configured for ReadOnly emulation. The device has an Ethernet interface for real time connection with the authentication and access control server platform. The protocol is a Master/Slave type and is broken down into a series of commands which allow remote configuration of the device, receiving of data on cards read, control over the device's entering and exiting, monitoring of correct functioning, and upgrading via firmware Ethernet network

2 – Cameras for video surveillance

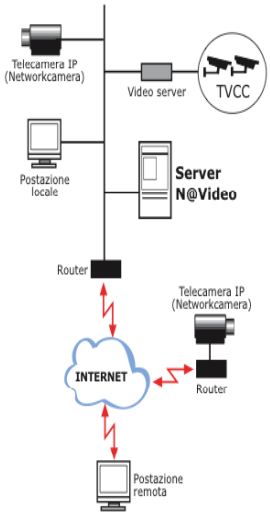


The cameras used are based on use of the Ethernet as an interface and a network powered by POE IEEE 802.3af (Power over Ethernet). This means that, using one POE compatible switch, one single cable can be used for both data and power.
The camera's view is fundamental in ensuring it is possible to capture an image in the expected light and distance conditions.

The various models of camera and their protective boxes (heated and ventilated) mean the system can be adapted according to the environment (internal/external) and the framing and quality required.

3 - Software

The software unites a video surveillance system that can be distributed through a network via a web interface, with an alarm management system that can be integrated with any other management system.
Cameras can operate in either streaming or motion detection mode.
Events generated by the RFID readers are linked to the recorded images.
The software functions on the Windows server platform and can be used via a web browser (Firefox / Explorer).



Other RFID solutions from Kyema

- Service cards, RFID and biometric access control for the banking industry.
- Service cards, access cards and prepaid credit cards for holiday villages and hotels.
- Access and parking control for industrial plants.
- Access surveillance and control.
- Access control/management and location of staff in high security environments.
- Management and control of distribution processes for high security documents.
- Location, traceability and movement analysis of players for the sports industry.
- Logistics and warehouse management

Kyema's partners

RFID solutions are the result of integrating various components which should produce the best possible result in relation to the sector and the type of application.
Kyema has developed a series of partnerships with the industry's leading companies, with which it collaborates to supply "best of breed" solutions.

Cisco, Samsys / SIRIT, Oracle, Philips, ST Microelectronics, CAEN, Multispectral, Cardpos, Alien Technologies, Acient, LabId and Softwork

are just some of our more notable partners.