# Monitoring and Security according to Urmet Engineering.

Urmet Engineering has setup USB/L software for supervision remote control in the Building Automation sector. This system, based on the Movicon platform, manages access control, intruder and fire detector systems in distributed architecture with TCP/IP technology.

Introduction

The Gruppo Urmet Spa from Turin is one of the most advanced Italian producers with one of the most richest history and experience in the sector of telecommunications.
An unrivalled heritage in know-how has enabled them to successfully implement the most sophisticated electronic hardware and software in control centers and terminals. The Urmet group has recently setup Urmet Engineering Srl, a company whose mission is to provide solutions and engineering in the security and building automation sectors. By planning their own strategies, Urmet Engineering proposes turnkey solutions to its clients, offering hardware+software solutions in
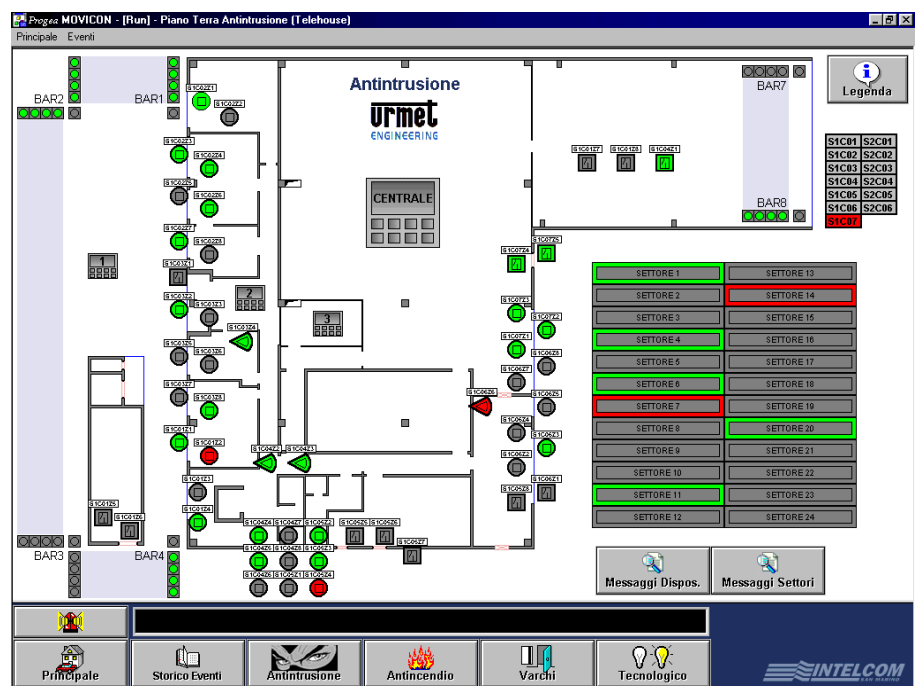
distributed network architectures using TCP/IP. These solutions are designed to provide a complete range of control devices created by the company group (intruder system, fire detectors, access control), putting their faith in PLCS with TCP/IP interface in the technological sector. The security system's management software designed by Urmet Engineering has been christened USB/L. This system is based on Personal Computer with Microsoft Windows 98, NT or 2000 and based on a well known SCADA platform, to guarantee the client the most openness, flexibility and standard conformity, allowing Urmet Engineering to development and customize quicker with better adaptability to market place architectures and devices at the same time.

Urmet Engineering chose Movicon as the platform to use for its simplicity of use, great range of powerful integrated solutions and top-notch client services provided by Progea, the product's makers.

USB/L is created for communicating through the Ethernet, using the TCP/IP protocol, with all the connected system components (intruder alarm systems, fire detectors, access controls, technologies, TVCC). The architecture type proposed by Urmet Engineering provides communication with control devices distributed in a TCP/IP network though the RS232/Ethernet Nodecom gateway created by Microlab Systems.

By using this architecture Urmet has been able to provide solutions for distributed control on local or wide area networks, consenting supervision over field systems from various surveillance centers.

The application access management with user ID codes and personalized passwords, activation configurability of each single user allows the application to be used both as a technical installation tool and a base supervisor for the end client.

The base structure is built principally on specific runtime functions, which consent communications with peripherals displaying their status to the user. These functions allow the peripherals to perform supervision operations

(alarms management, commands, acknowledgments, resets, access control configurations, database creation, data filing and processing etc).

The SW provides the possibility to manage user profiles in order to allow access to those users authorized by their job duties ((transits, alarms, etc.) The operating system used consents multitasking, communication multi-protocols and Client-Server network architecture.

Application

The Telehouse application, implemented by a very important company and a subsidiary of a major Italian telephone company, is a very good example of the USB/L integrated system designed by Urmet Engineering. The Telehouse mission is to gather telephone carriers, collocated in the building especially built for this purpose.

This building has been designed for collocating company facilities appropriately organized for
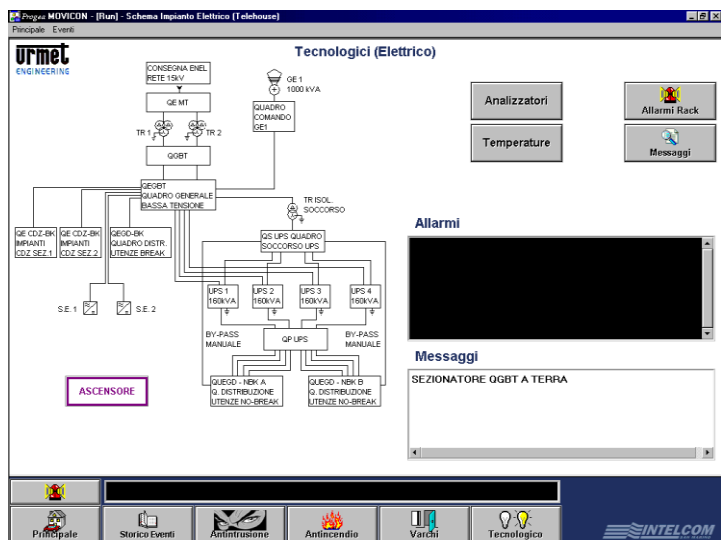
providing broadband services, distributed within the building according to the planimetry allocated to the client.

The whole building is kept under surveillance by two control stations fitted with supervision PCs: one in the watch room and the other in the maintenance room.

Both PCs are fully operative and independent, connected in TCP/IP Ethernet where the control centers and PLCs of the technological facilities are distributed.

The architecture type designed by Urmet Engineering renders the system perfectly distributed on a wide area network, allowing the client to manage other Telehouse facilities in the future from one customer support center. The supervision system, by fully exploiting the powerful features of the Movicon Scada Software, gathers information by means of the event notifications handled by the OPC server of gateways placed on the central data points.   On watch personnel can get the exact situation of the smoke sensors, intruder sensors and access points that are all under complete control using a series of graphical, interactive and hierarchical screen pages. By activating the commands placed above each graphic sensor symbol with a mouse click the user can interact with the sensor to set its parameters and functional criteria, where each operation corresponds to a specific security access level, established by assigning a profile for each user. Each single sensor (whether located at floor or ceiling level) is represented on screen with an icon replica, and on each event occurrence it is displayed in the graphical screen pages in a form of an alarm, displayed in the area window and archived in compatible ODBC database files for historical event analysing. The access control management handles customizable user profiles, where each user is authorized access by having their assigned badge read at access points based on customizable timeframes. The technology, in the case of the Telehouse system in S. Marino, provides complete management of the electrical devices in the building, air conditioning and power supply. In terms of the electrical devices, the system retrieves the status of all the power distribution control stations and sub stations, the status and users of the power units and the relative alarms. By using the supervisor graphical maps, whose designs have been imported directly from the system Autocad layout, the user can monitor the status of the electrical devices, by viewing the effective power distribution path based on the switch statuses. By interfacing with the power supply control units, the supervision system can gather, monitor and record the effective
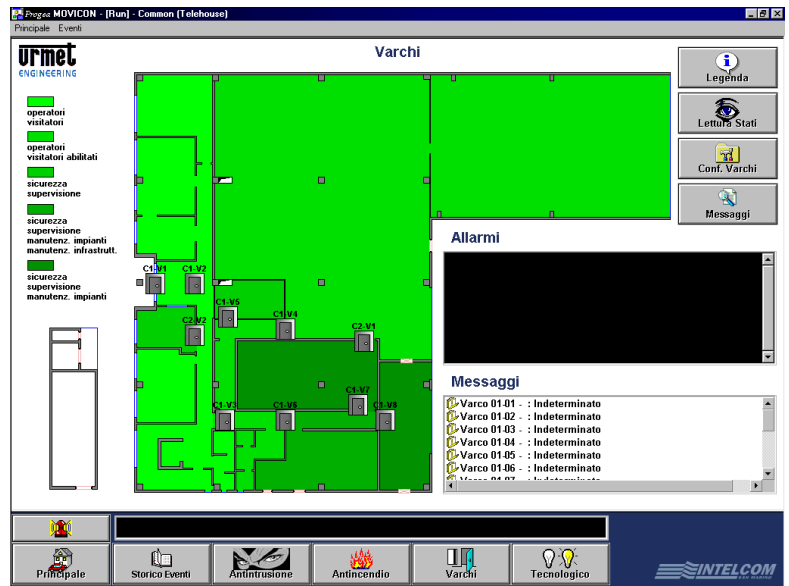
electrical power absorbed by the various devices, consenting the client to rationalize the power consumption based on behaviour statistics reported by the historical trends. The system also reports the status of the whole building's air conditioning.   With the aim to guarantee the supply of all the tools relating to managing the site in security, the integrated system designed by Urmet Engineering uses a visual control system based on TVCC linked to a recording and image compressor control unit linked to the supervision system through the same TCP/IP network. In this way the local user or any remote users can view, the images from the TVCC system in realtime using the same supervision system.

Conclusion
The integrated system that Urmet Engineering has proposed to its clients is extremely interesting especially those features dealing with information distribution over the net. In addition to the inherent potentialities, client satisfaction is guaranteed with the Movicon platform standard on which it is based, capable of interfacing all control systems and field buses on the market. Furthermore, the system is automatically predisposed for managing SMS, vocal calls and wireless remote control with WAP technology, very interesting and vital tools to have in the industrial and building automation world.

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