OUR COMPANY

ATECHNA Engineering is a Telemetry, Industrial Automation and SCADA systems specialized company, founded on February 1992 by Gonzalo Barros, at the present Company President.

ATECHNA's succeed is mainly based on permanent research and product-development efforts and application of state of the art technology to smart solutions.
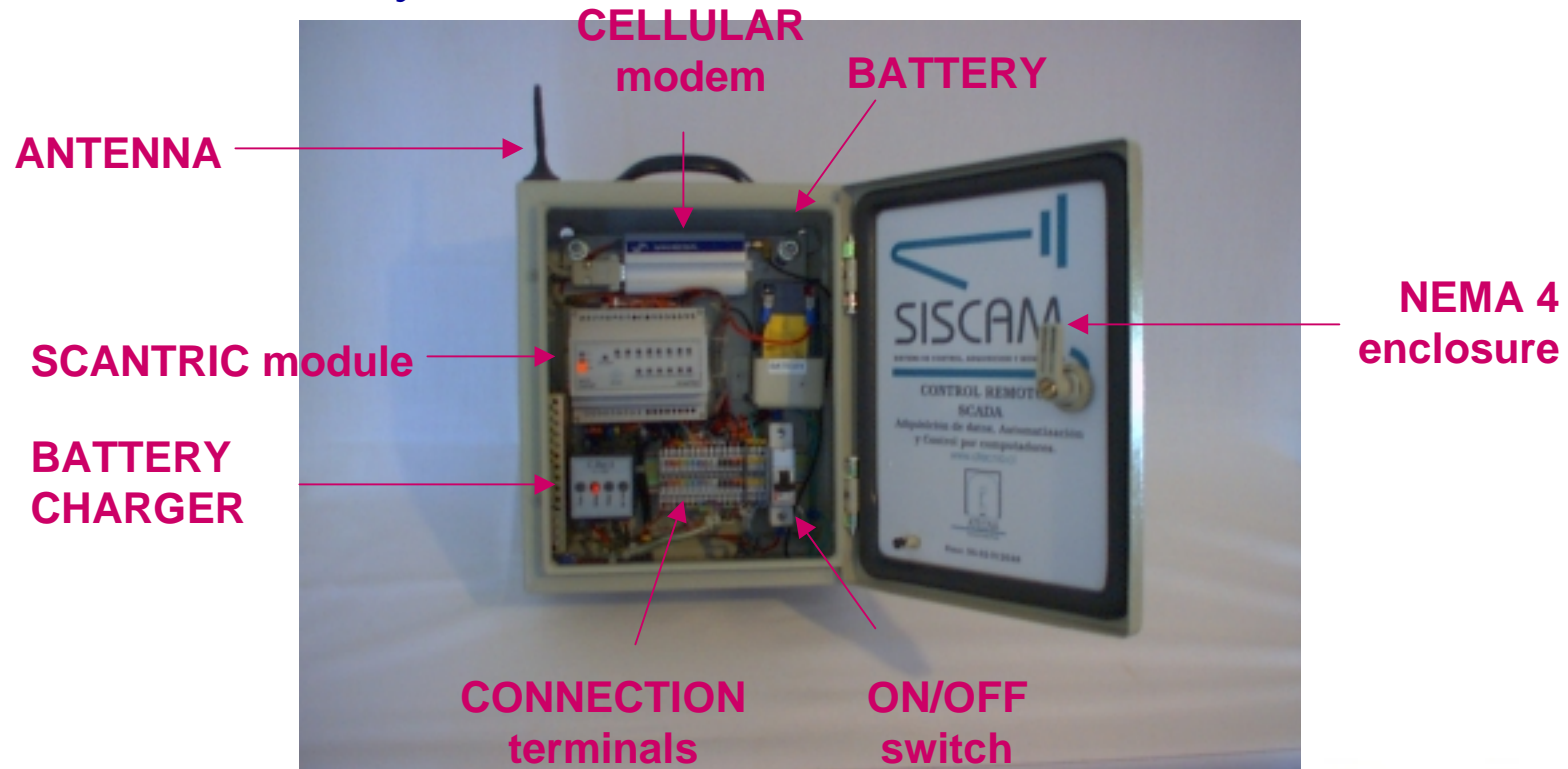
As a system integrator, ATECHNA combines equipment of its own SCANTRIC line with products made by different manufacturers in order to match the customer's needs.

SCANTRIC: REMOTE MONITORING AND COMMAND SYSTEM

ATECHNA presents SCANTRIC, a new telecommand and remote monitoring system. There are no limits for SCANTRIC other than the user's creativity in the field of remote supervision of complex industrial plants and distributed control systems. SCANTRIC also meets the today's high performance demand in the field of surveillance and security.

ANTENNA

CELLULAR modem

BATTERY

NEMA 4 enclosure

SCANTRIC module

BATTERY CHARGER

CONNECTION terminals

ON/OFF switch

Over 500 units are working now!

ATECHNA
www.atechna.com

Creativity and innovation are from the beginning part of ATECHNA's philosophy. Technological research efforts are permanently carried out to satisfy increasing Customer's needs for effective automation and system monitoring.

SCANTRIC is a low cost high efficiency solution for remote control, supervision and alarm.

It is particularly useful in extended plants and areas, where costly distributed control networks are required.

SCANTRIC represents a new and easy technological concept in the field of SCADA system communications.

Internet and cellular telephone networks are the platform of this new fast and reliable communication alternative.

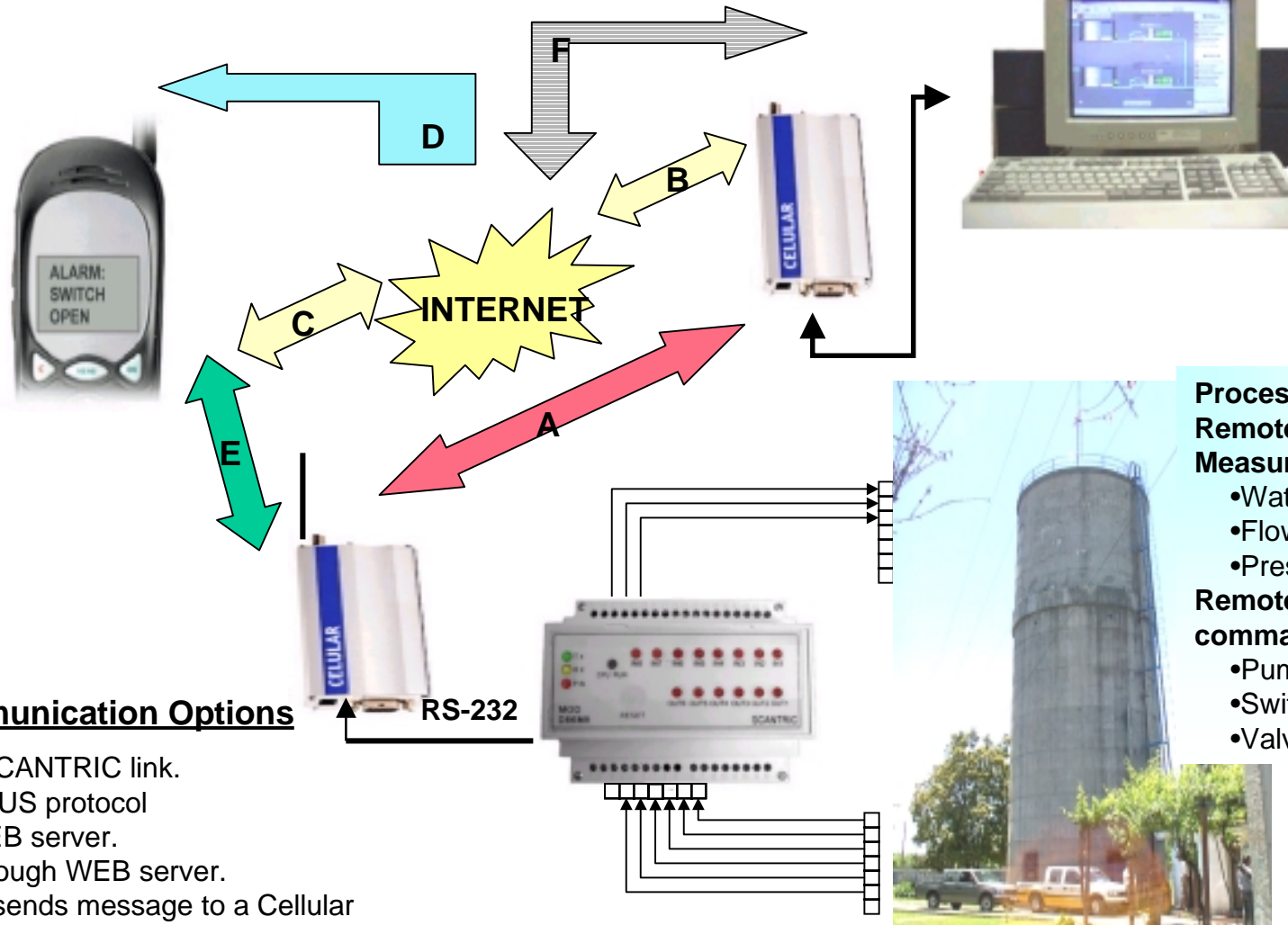## Various Communication Media include Cellular SMS and Internet

Several transmission media can be used to communicate SCANTRIC units with the Control Center.

SCANTRIC-SMS: employs pre-programmed SMS messages and e-mails. The data is sent to cellular network and then delivered to the user´s cell phone and WEB page.

Among other possible transmission media are radio link, satellite and cable

INTERNET

REMOTE PROCESS OR SYSTEM

wavecom WMOD2

SMS.

SCANTRIC: Connection modes

ATECHNA
www.atechna.com

INTERNET

ALARM: SWITCH OPEN

CELLULAR

RS-232

F

D

B

C

A

E

**Process:
Remote
Measurement of**
- Water level
- Flow
- Pressure.

**Remote
command of**
- Pumps
- Switches.
- Valves.

Possible Communication Options

A - Direct PC to SCANTRIC link.
   SMS or MODBUS protocol
B - PC through WEB server.
C - SCANTRIC through WEB server.
D - WEB server resends message to a Cellular
   phone.
E - Direct Cellular Phone to SCANTRIC message.
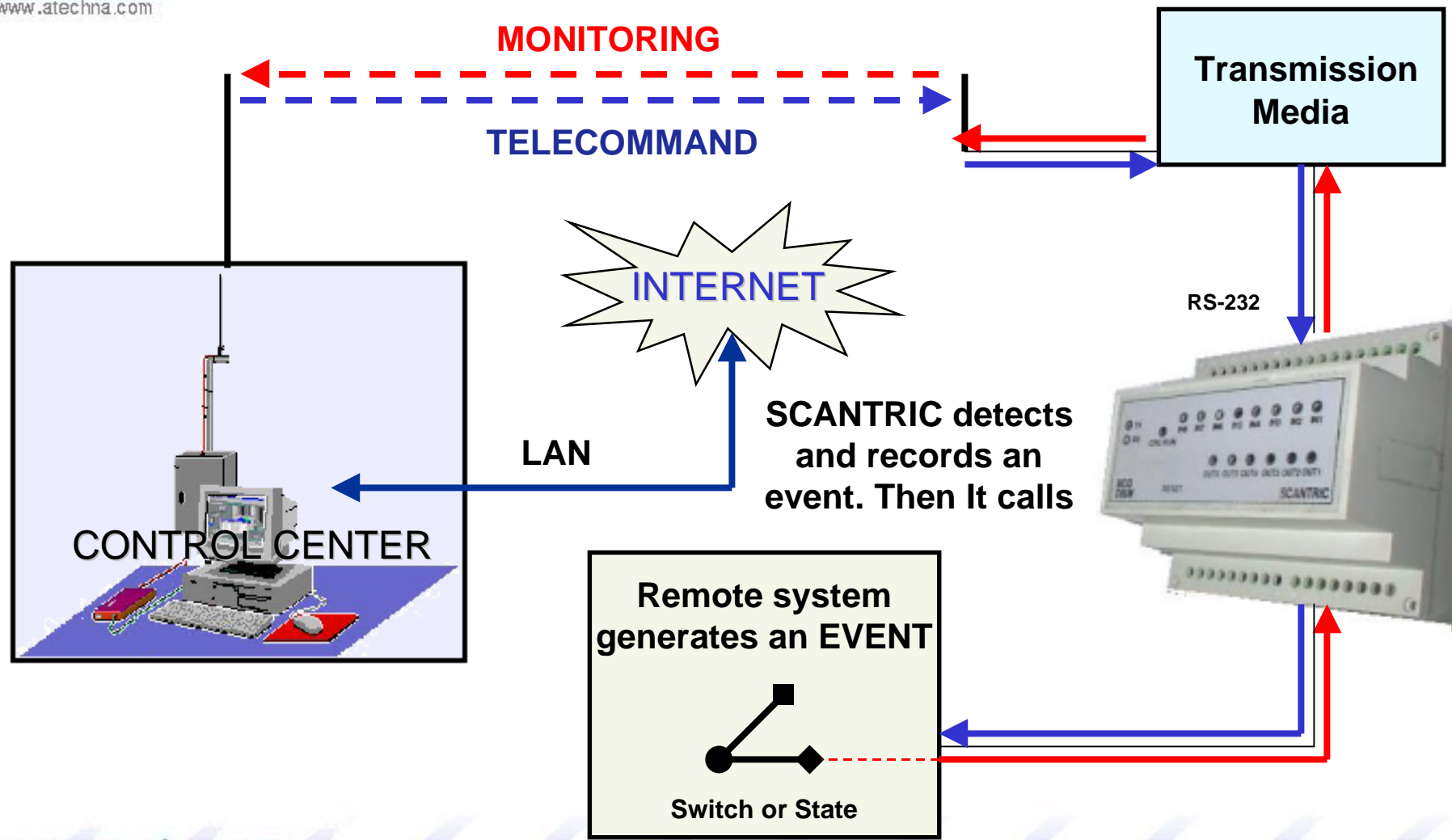F - Internet to SCANTRIC connection.

Several possible communication media and protocols.

SCANTRIC TIPICAL TOPOLOGY
Event Message Generation

MONITORING

TELECOMMAND

Transmission Media

INTERNET

RS-232

LAN

SCANTRIC detects and records an event. Then It calls

CONTROL CENTER

Remote system generates an EVENT

Switch or State

SCANTRIC

ATECHNA
www.atechna.com

www.atechna.com

How does SCANTRIC-SMS work?

Up to 8 signals (contact closure or analog) can be input to the SCANTRIC.

Usually a set of sensors meters physical variables. SCANTIC unit reads the value of such variables and compares them with preset levels. A value in excess over the preset level can trigger an alarm and generate an event. Then the unit codes the event condition employing the Short Message Service (SMS) standard to send a message.by the cellular phone network. This is accomplished by means of a cellular modem.

The message is simultaneously transmitted to:

- User's cell phone

- User's e-mail address

- WEB site address.

Alarm conditions can be configured to generate event messages only if the variable exceeds a range for a time lapse greater than a programmed value.

By transmitting programmed messages, the user can send remote commands from a cell phone. This makes possible to open/close switches, start/stop motors, etc. The user can also poll any set of variables in the SCANTRIC-SMS unit.
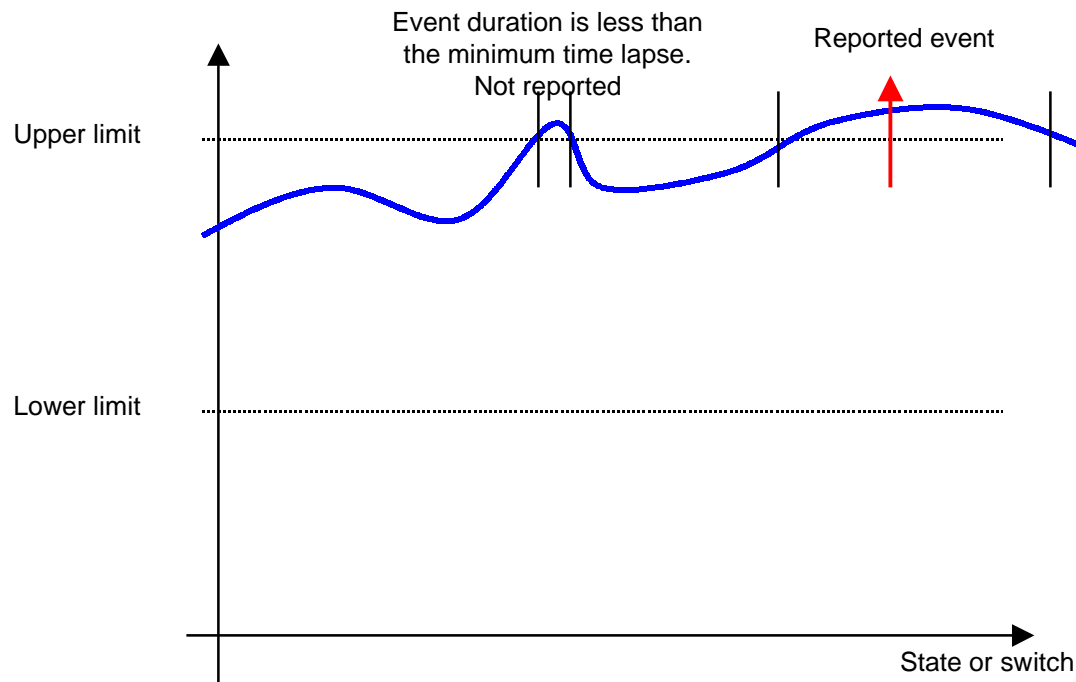
If an alarm message is issued while the user's cell phone is off, the message is automatically received when the phone is turned on, because the cellular network will attempt the transmission until the destination phone is able to receive it.

SCANTRIC SMS Event Generation

Event reports are messages sent by SCANTRIC unit when the measured variables go out of preset ranges during a time lapse greater than a fixed value.

An alarm message is automatically emitted as SMS format to the user's cell phone and e-mailed to user's WEB page.

Event duration is less than the minimum time lapse. Not reported

Reported event

Upper limit

Lower limit

State or switch

Event Recording and User Programmable parameter communication:
•Maximum an minimum values .
•Detection times,
•Retransmission number
•Event counters.
•Statistics.
•Data registers.

SCANTRIC

Event detection, recording and report

APPLICATIONS

Almost any kind of mechanical, electric, hydraulic, pneumatic, etc. systems, can be remote monitored and commanded by SCANTRIC SMS.

Applications go from building security and surveillance to remote control of industrial plants, mining equipment, water, gas and electric distribution utilities.
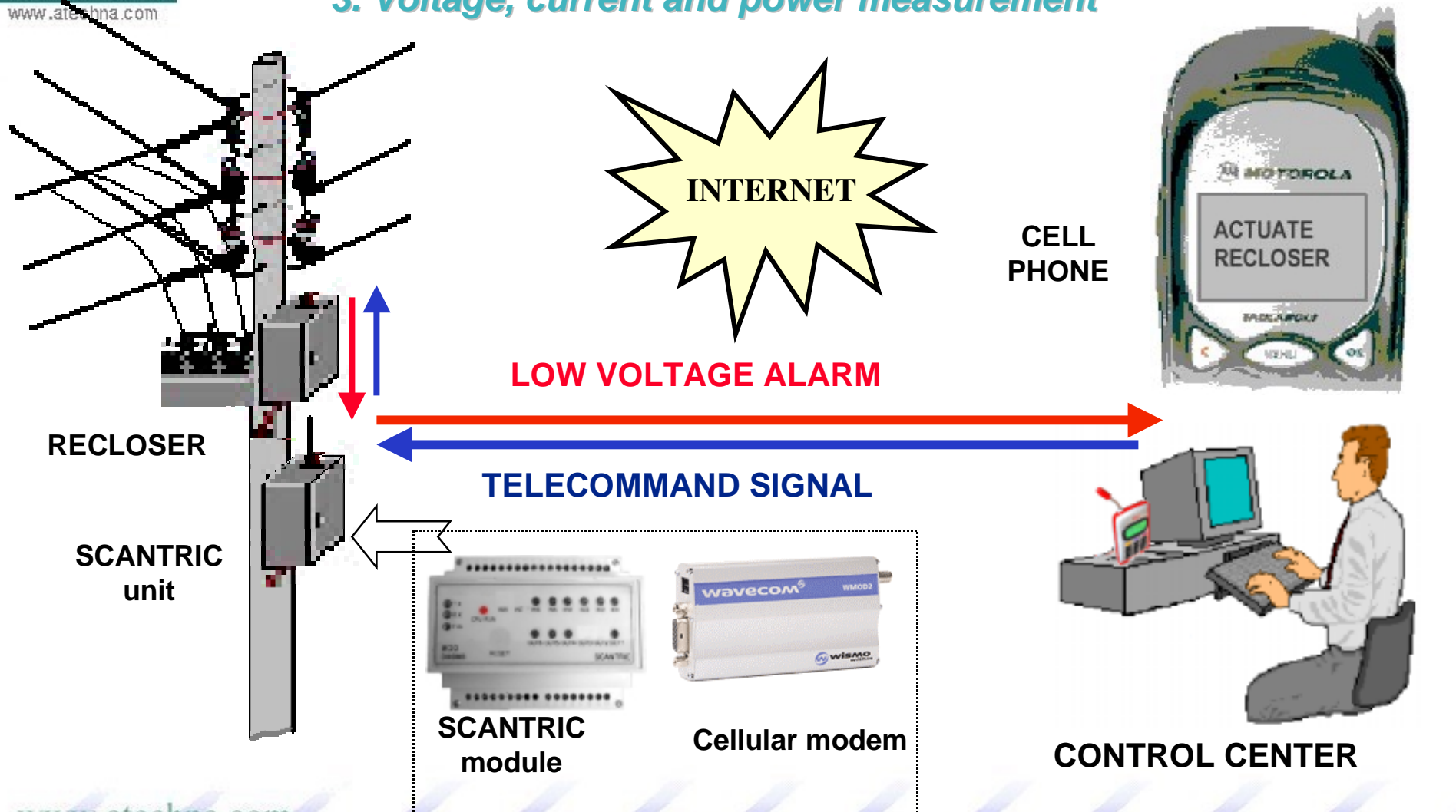
Variables of any kind can be measured and monitored. Digital signals, like a switch closure state, or analog like fluid level, pressure, temperature, flow, voltage, power, pH, etc.

SCANTRIC SMS units are at present installed and working in many companies.
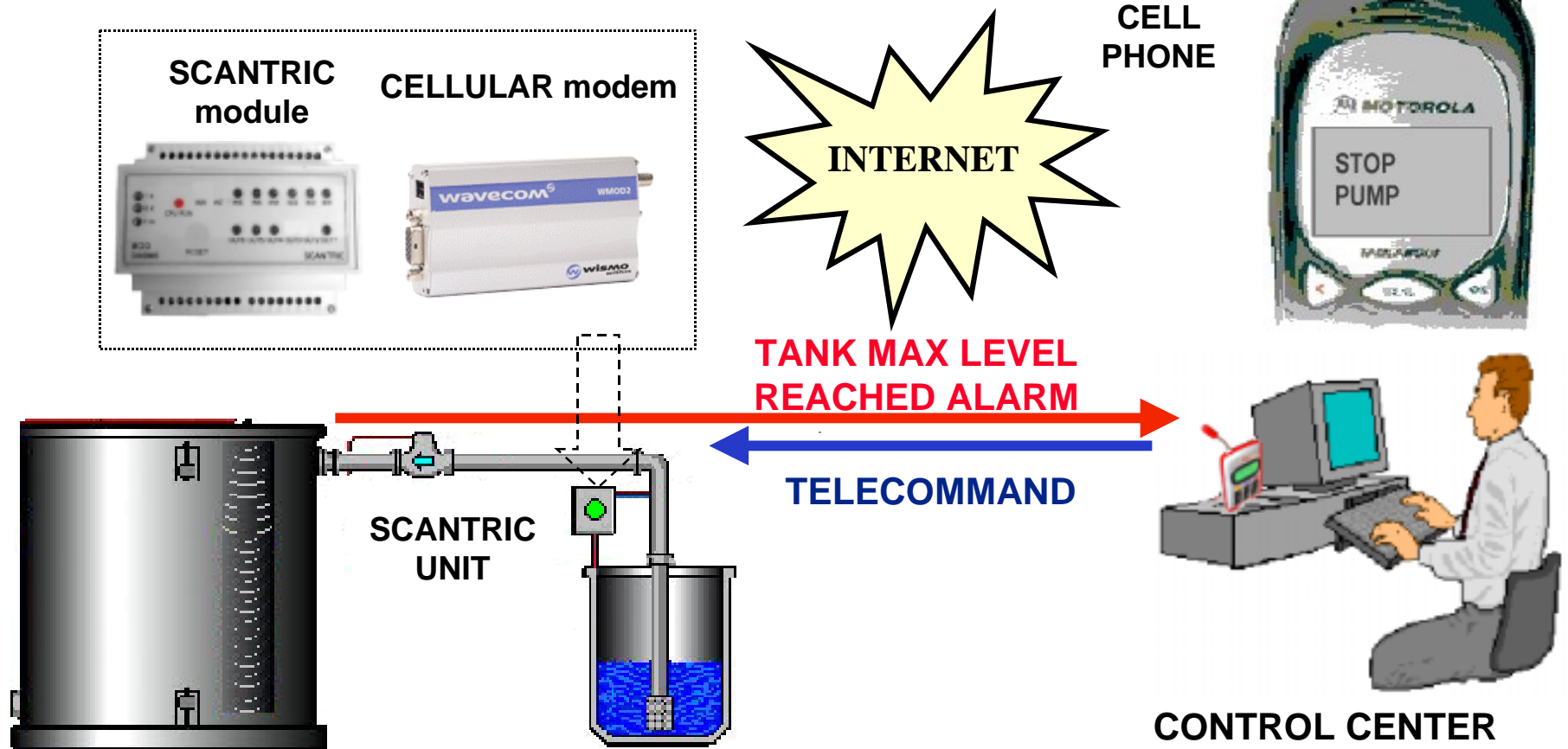
www.atechna.com
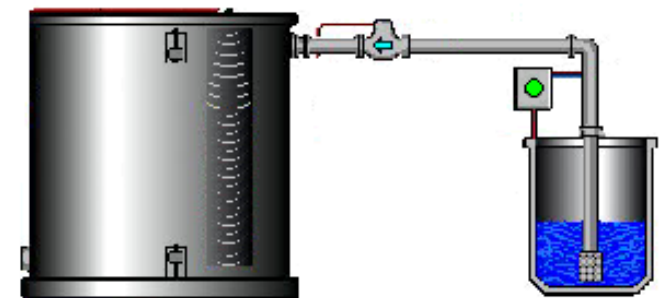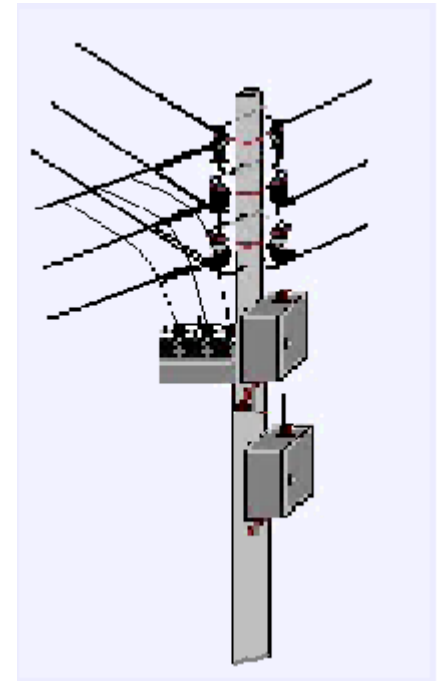
APPLICATION 1: ELECTRIC DISTRIBUTION UTILITY

1. Power supply failure detection
2. Remote recloser and switch operation
3. Voltage, current and power measurement

INTERNET

CELL PHONE

ACTUATE RECLOSER

MOTOROLA

LOW VOLTAGE ALARM

RECLOSER

TELECOMMAND SIGNAL

SCANTRIC unit

SCANTRIC module

Cellular modem

CONTROL CENTER

www.atechna.com

APPLICATION 2: WATER UTILITY

1. **Water supply failure detection**
2. **Remote pump and valve command**
3. **Level, flow and pressure measurement**

SCANTRIC module

CELLULAR modem

INTERNET

CELL PHONE

STOP PUMP

TANK MAX LEVEL REACHED ALARM

SCANTRIC UNIT

TELECOMMAND

CONTROL CENTER

APPLICATION 3: Vehicle Monitoring

1. **GPS Position Monitoring**
2. **Remote Sensor Telemetry**
3. **Remote Equipment and System Command**

SATELLITE

INTERNET

SATELLITE LINK ANTENNA

TELECOMMAND
MONITORING

CORPORATION LAN

SCANTRIC MODULE

SATELLITE MODEM

www.atechna.com
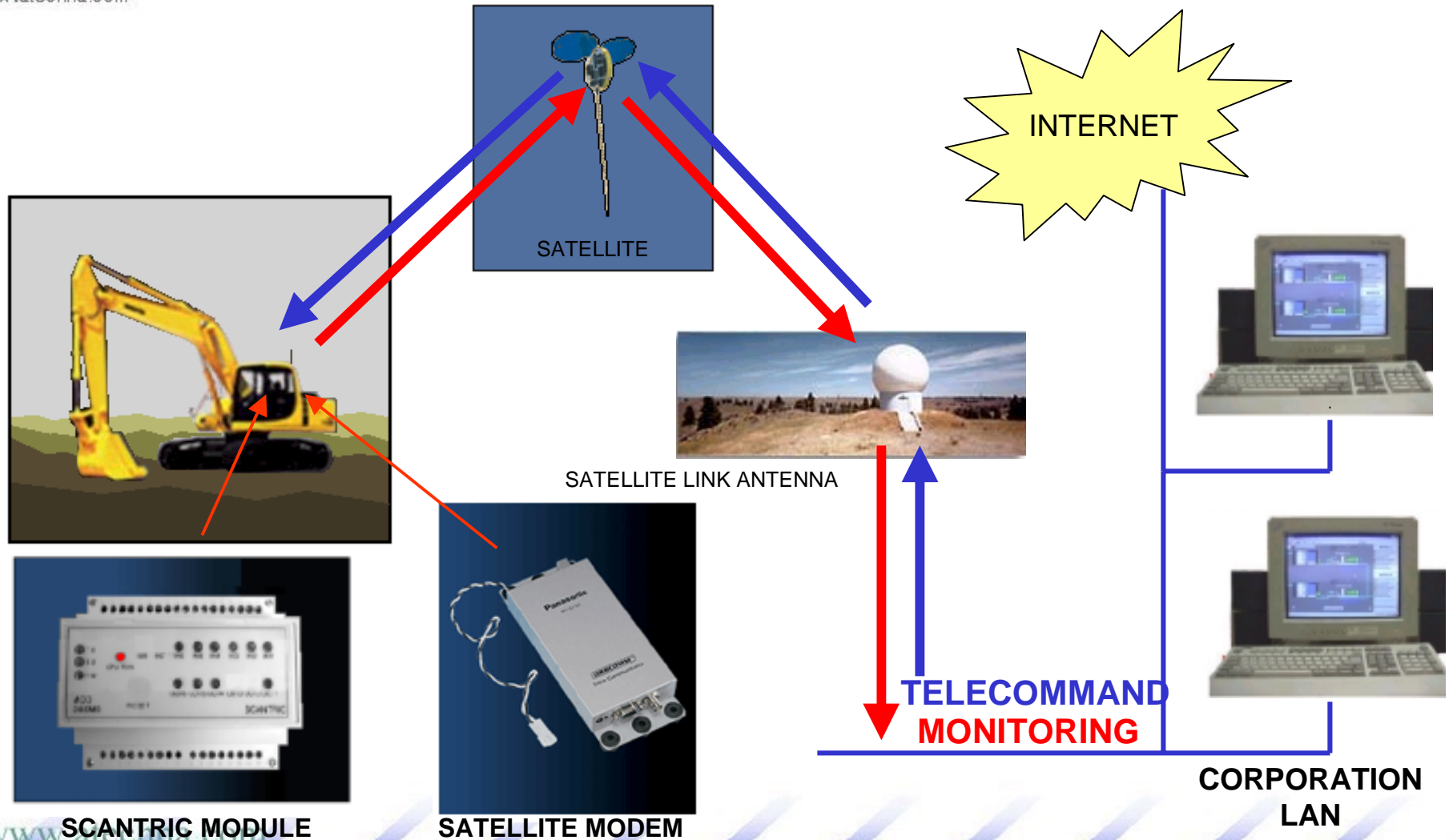
APLICATION 4: Home

1. **Burglar Alarm monitoring in the WEB and Cell Phone**
2. **Heating, Lighting and Home Appliance Remote Control**
3. **Fire and Panic Alarm Monitoring**

INTERNET

AREA 1 ALARM

INTRUSION ALARM

TELECOMMAND

SMS - E-MAIL

Contact ID PROTOCOL

CELL PHONE INSTANT ALARM

SURVEILLANCE SERVICE MONITOR CENTER

HOME ALARM SYSTEM

www.atechna.com

ATECHNA
www.atechna.com
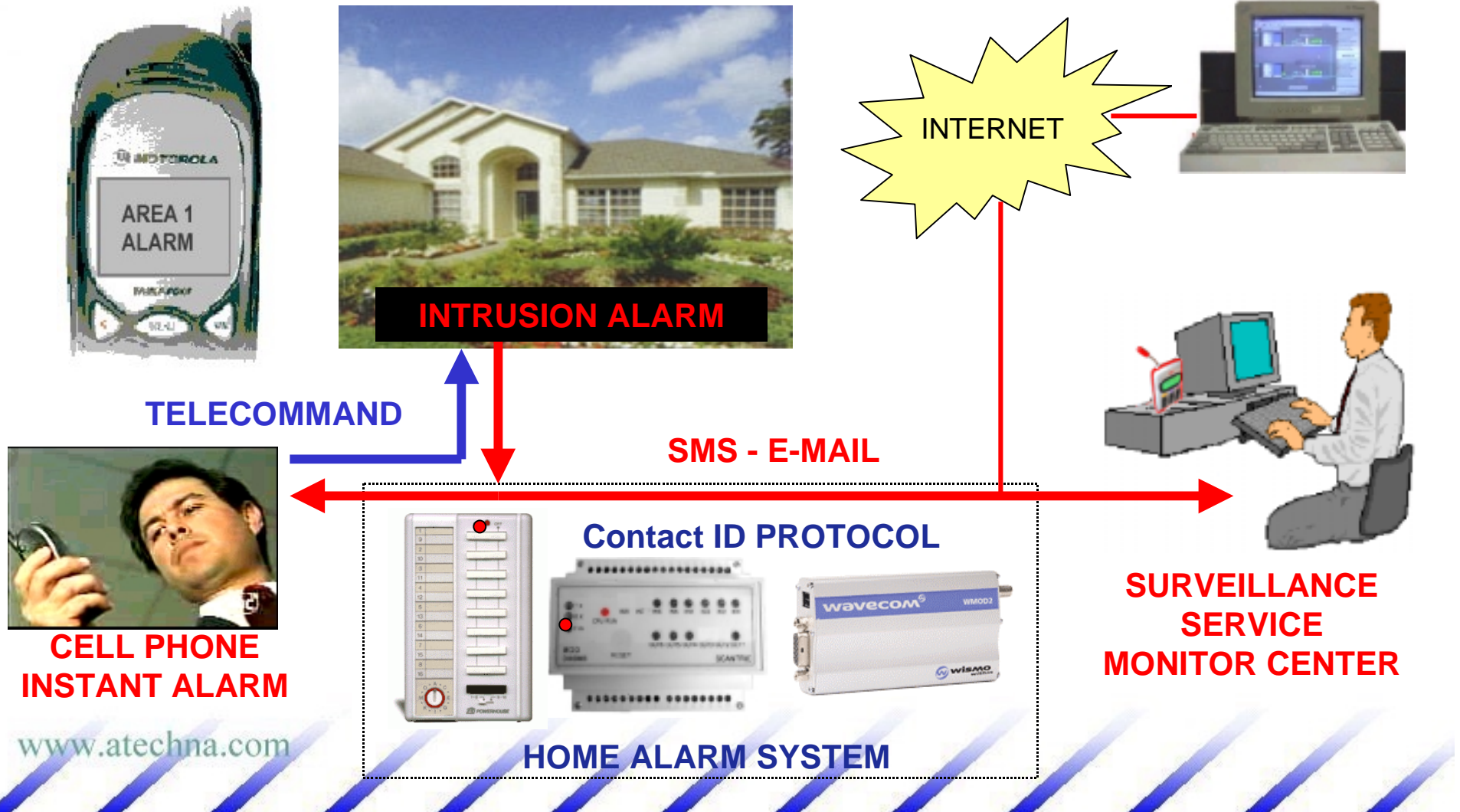
SCANTRIC: Technical Features

Applications: Voltage monitoring in automatic reclosers, gateways, industrial process supervision.

Signal Input : 8 analog/digital inputs (0-20 mA, or de 0-5 VDC).They can be used to measure voltage, current, power factor, etc. Common applications are switch open/close state and event monitoring. Input number can be increased by connecting several units in a network.

Command Output: 6 dry contact.

Communication: RS-232 port (RS-485 optional). Protocols: MODBUS, AT92, AT command Subset, SMS.

Transmission: Standard radio transceiver (1200 bps), Radio modem (9600 bps), Switched or leased telephone line, Cellular modem.

Enclosure: NEMA 4, Pole Mounted.

Power Supply 220 VAC or 12 VDC. 48 hour power backup

SCANTRIC Advantages

- *Instant Alarm and Failure Identification in the Cell Phone*
- *Event Alert Messages sent to Cell Phones and WEB pages*
- *Remote Control from a Cell Phone or Internet connected PC*
- *Failure correction from anywhere*
- *Great Price/Performance*
- *Event driven Supervision Concept. No Data Saturation.*
- *Reliable and safe Operation*
- *Better Control to decrease Losses*
- *Greater Production Profitability*
- *Corporate Image Improvement.*

ATECHNA: Product and Service Summary

ATECHNA
www.atechna.com

We research and develop over Open Platforms

Products:

- **SISCAM SBC, Standard Industrial Remote Terminal Unit**
- **SISCAM PLC, PLC based RTU**
- **SISCAM SCANTRIC, SCADA unit**
- **SISCAM LonWorks, LonWorks Technology based RTU**
- **TELESOFT, SCADA monitoring Graphic Software**

Services:

- **Engineering**
- **System Integration**
- **Automated System Installation and Operation Start Up.**
- **SCADA Preventive Maintenance (SPM)**

www.atechna.com

SCANTRIC: Our Customers

Over 500 units installed !

CHILECTRA METROPOLITANA S.A:

SISCAM Remote Terminal Units with Westinghouse 4F communication protocol. Communication channels are share with several Westinghouse formerly installed RTUs.

RIO MAIPO S.A:

SISCAM and SCANTRIC RTUs, installed in Primary Substations, Reclosers, Motor Operated Alduties and Remote Voltage Regulators. TelesoftWin Control Center Software.

EMELARI S.A:

SISCAM and SCANTRIC RTUs installed to control and supervise Primary Substations, Reclosers and Break Switches. TelesoftWin Control Center Software.

CHILQUINTA S.A:

SCANTRIC RTUs to monitor Secondary Substations through Telephone lines.

ATECHNA

www.atechna.com

Do you need help to develop your automation project?
Contact us:

We are searching for sale representatives!

ATECHNA :
LAS PATAGUAS 1566
QUILPUE
CHILE
FONO 56-32-912648
FAX: 56-32-926843
E-mail: info@atechna.com
www.atechna.com

ATECHNA' s U.S. Representative :

Alert Technologies
17319 Cypress Spring Dr.
Spring, Texas 77388

Telephone : (281) 528 0201
Fax   : (281) 288 6601

e-mail: mtimm@main.com

www.atechna.com