



NET@XESS System

A complete Network Management System



EVERYTHING IS UNDER CONTROL!



A CONTROL-CENTER CENTRIC SYSTEM

- This system collect in a single database all the data from the sites in the system. The application can then manage the data based on source.
- It can give a one glimpse overview (synoptic) of all sites, enabling drill-down access to the problem.
- It can reach an engineer (SMS, e-mail, phone) based on area, shift, and other parameters like expertise by easily using one single application in one single database.
- It can build statistics, raise exceptions.. thanks to comparison of stored information.
- No direct site communication rendering connection media an independent variable for data recovery. Otherwise, the user would have to know how the site equipment is connected to extract data.
- Total security thanks to the fact that engineers can interact with sites only after allowance (username and password) screening.
- Addition or removal of personnel is a one-time job for one or many sites.



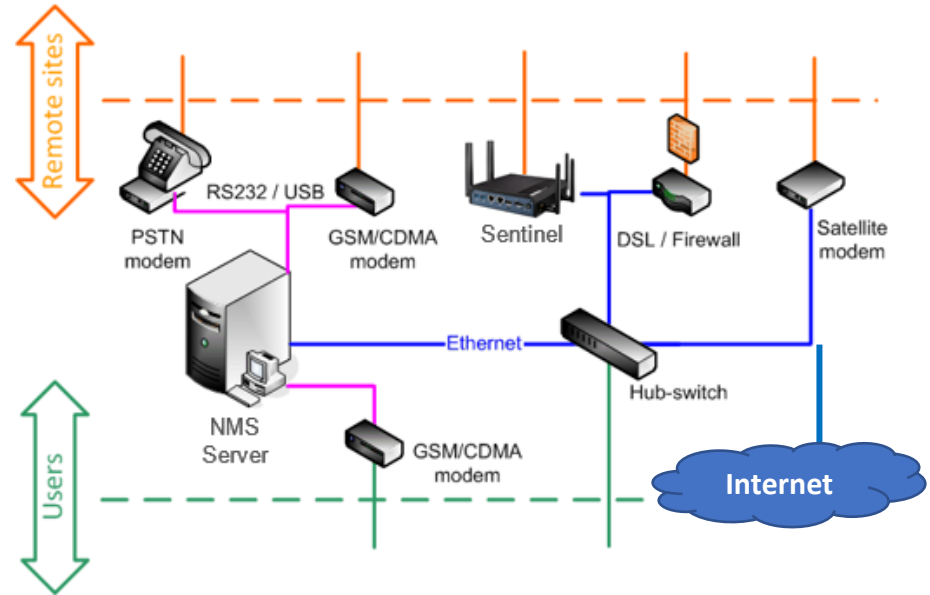
CONTROL-CENTER

Any communication between users and sites passes thru the Control Center

Also, when you use an Internet access

The control center is made up of:

- a PC running *NMS Core* the server application
- a PC running *NMS Patrol* the client application: it can be the same PC running the server
- a series of **Network interfaces** to communicate with the remote sites
- a series of **Communication interfaces** to chat with the users



Why everything passes thru the Control Center ?

Sites
Users  will log to the Control Center

This is for three main reasons:

- Connection path
 - Sites can be linked in many different ways. The control center knows how to reach the site, the user does not.
- History Management
 - All operations carried out from any operator is logged into the database.
- Total Security
 - All operations can be viewed and supervised in real-time, also when the user is connecting directly to an equipment on site. Connections thru public internet uses VPN, the control center can easily handle this, the user sometimes is hardly equipped to do so.

How does the Core get in touch with the sites?

This is the **key** to NET@XESS **success**

- The sites can be reached via **any type of media** that supports a Serial Communication Interface or a network communication interface.
- The communication path is defined and managed by the control center
- Each site can be configured with a “**main**” and one or NET@XESS “**backup**” media connections
- Protocols include the use of SNMP or proprietary protocols. Transparent HTTP is used to communicate directly with onsite equipment.



NMS CORE SW: THE HEART OF THE SYSTEM

- **Sends commands** and collects alarms/events/data from remote sites;
- **Manages** the system communication/database
- **Generates** and Forwards alarms to technicians via SMS/e-mail
- **Backs-up** daily data and manages the database integrity
- **Exports** database and reports in many universal formats

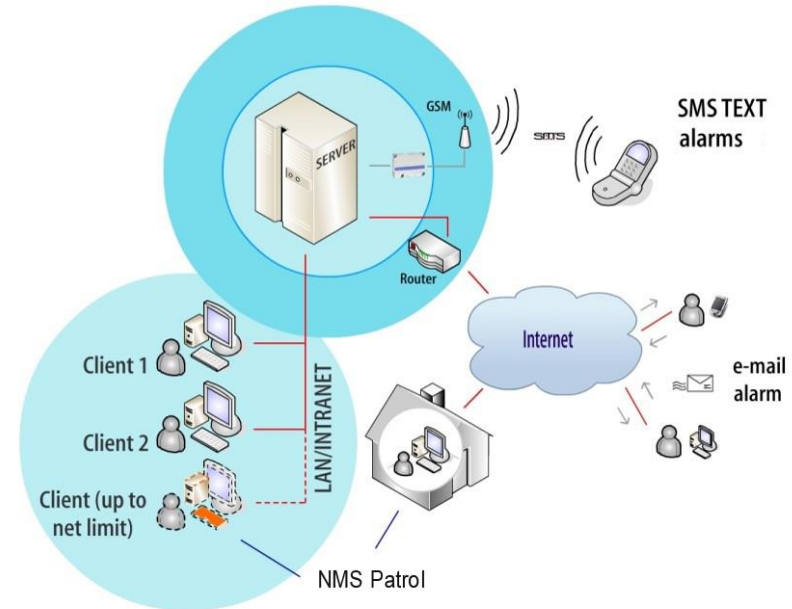


How do You get info from the Control Center?

The user connects to the control center via:

- the client application NMS Patrol
 - Authorized username and password
 - A GUI (Graphical User Interface) to
 - Configure the system
 - Read system instant data
 - Read historical data
 - Send commands
- SMS & E-mail text messages
 - receive alarms/events filtered by the control center

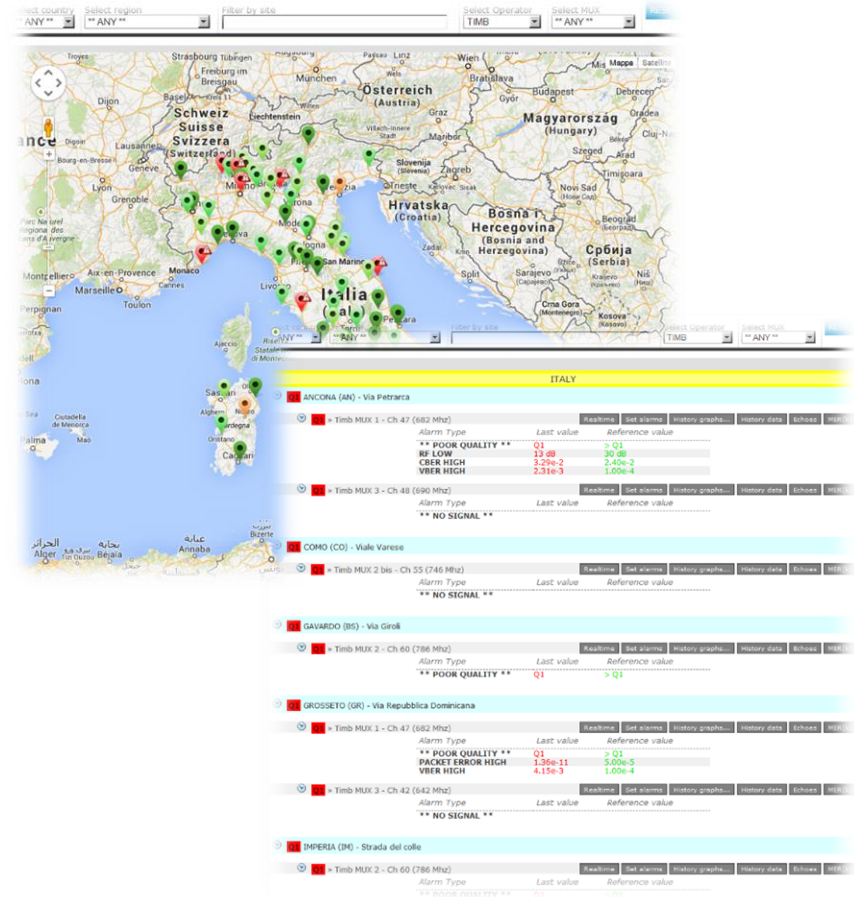
How can I access site information?



NMS PATROL SOFTWARE

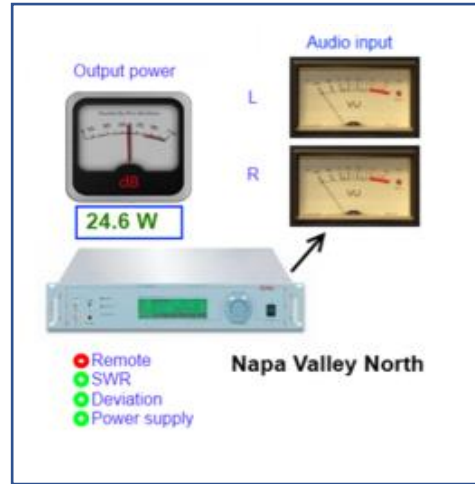
An intuitive and easily user interface for both browsing and configuring the system.

- NMS patrol is the client application
- It is the GUI (Graphical User Interface) of the NMS Core which is the server
- NMS Patrol connects to the NMS Core via TCP/IP
- It runs on any WINDOWS® OS platforms
- It runs only when the user wants to read data, check for alarms, send commands or configure the system.
- System administrator will grant different operating permission to users



SINOPTIC VISUALIZATION

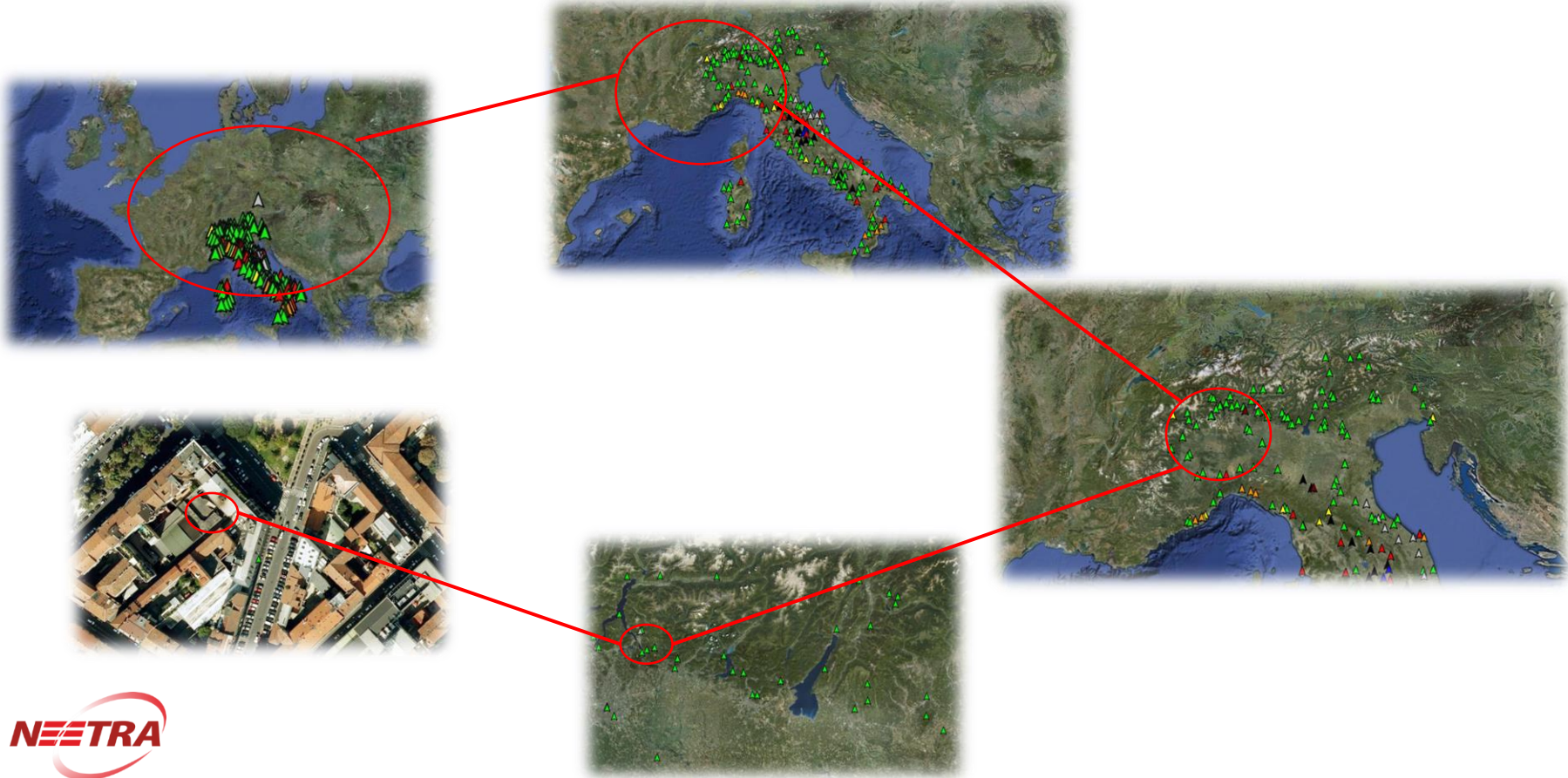
The user can set-up screens that collect many different types of measurements from various sites using pictures and drawings to help drilling down problems or simply collect signals from different sources.



A built-in screen editor enables the user to build self-composed custom screens, from the simplest to the most complex in minutes.



DRILL DOWN TO THE SMALLEST SITE



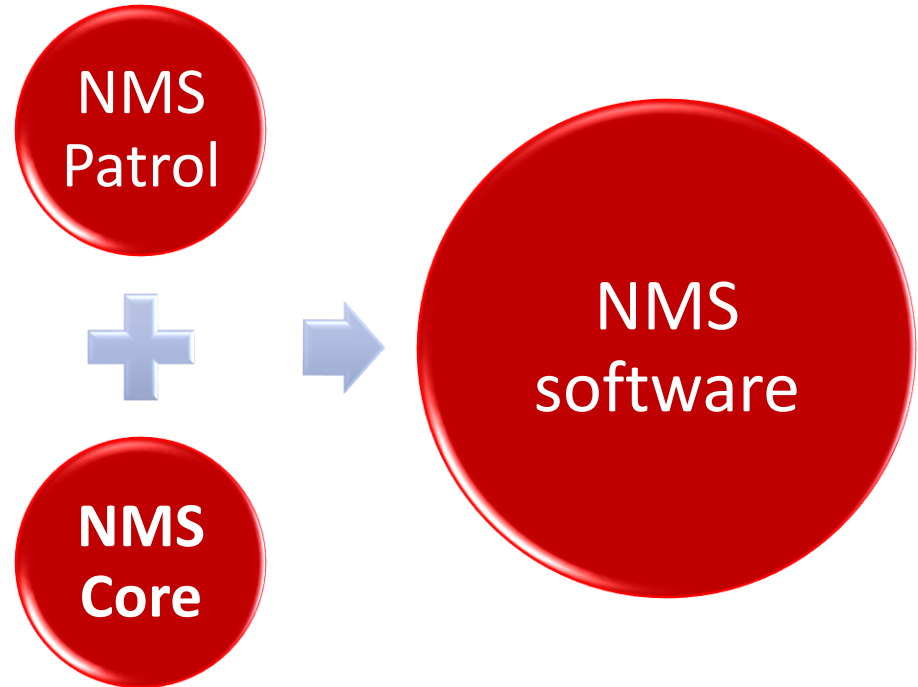
NET@XESS SYSTEM SOFTWARE SUITE COMPOSITION

Patrol: (Client)

- Can be installed on as many PCs as desired
- Access to core thru secure communication
- High quality graphics and easy to use

Core: (Server)

- Can use many different types of databases
- Manages rules , communication with devices, SNMP queries, etc..
- Manages plug in modules (see functionality)
- Stores and retrieves data from the database



NET@XESS SYSTEM SITE CONCENTRATOR

Remote control unit able to communicate thru 2/3/4G or ethernet.

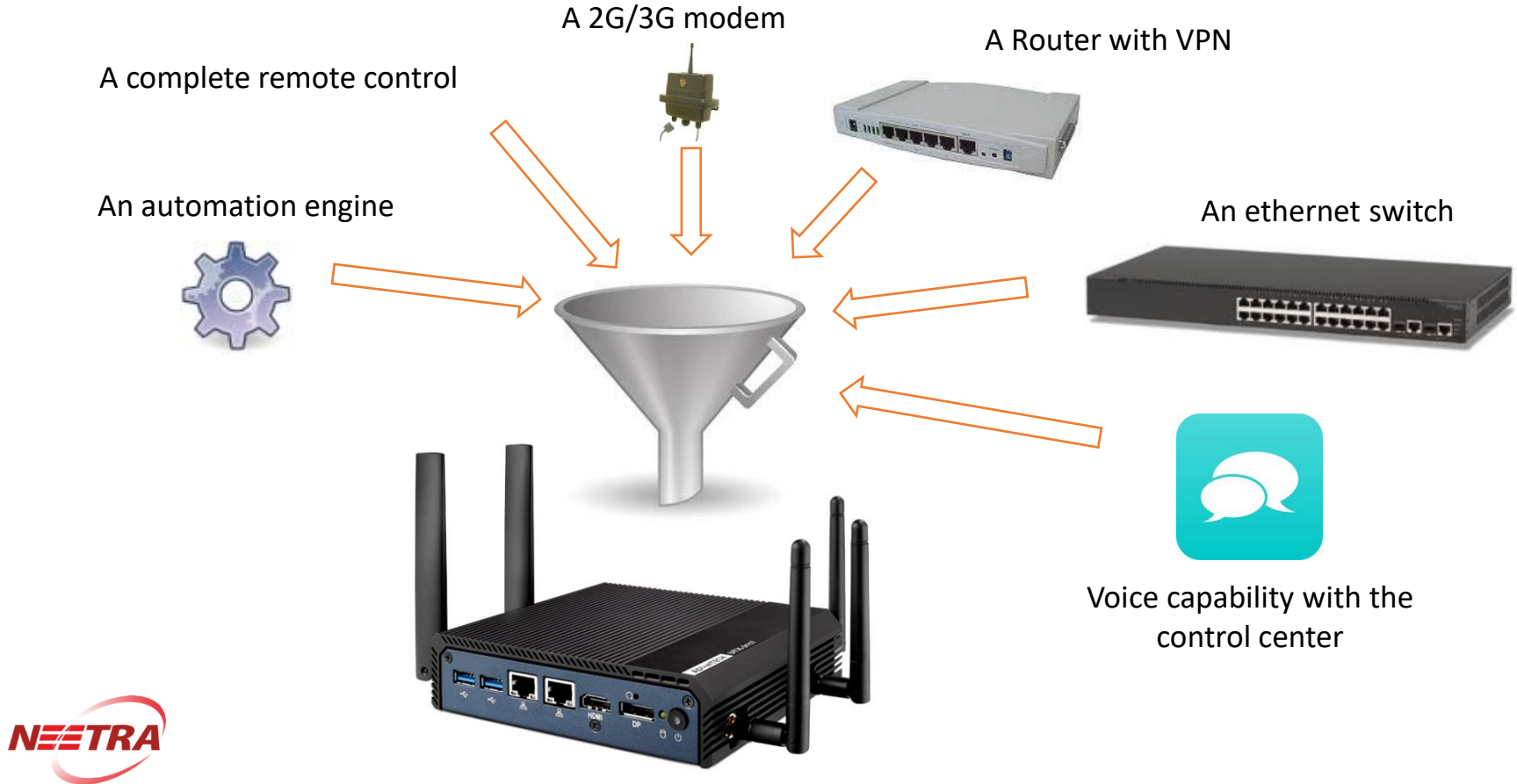
This unit connects to the internet and tunnels, collected data and site equipments' ethernet thru a built in VPN.

The NET@XESS has up to 6 different functions in 1 (see next page).

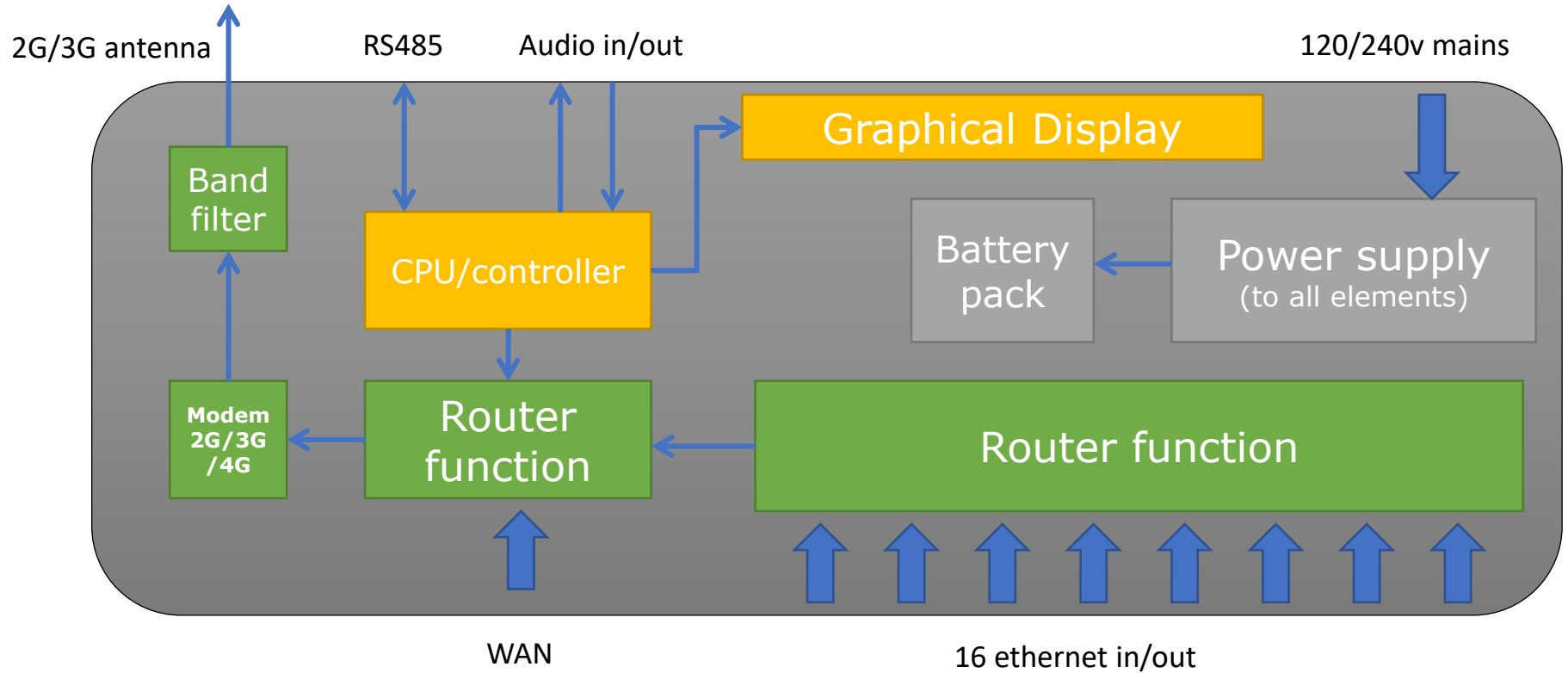
A complete range of expansion units and probes can be connected to the NET@XESS to monitor and control non IP datapoints.



What is the NET@XESS? It is a combination of 6 elements in one



NET@XESS FUNCTIONALITY



NET@XESS FEATURES

- High security connections to the control center thru VPN
- No annual fees to be paid for VPN usage
- High immunity to RF thanks to a built in band filter
- Network balancing capability (GSM/WAN)
- Rule based local automation capabilities (option)
- IP passthru to control center.
- Local monitoring thru LCD display / web interface / SNMP
- I/O capability using peripheral expansion units and probes
- I/O capabilities using third party ModBUS devices



DESIGN A **LIMITLESS** NETWORK STRUCTURE

The 'NET@XESS' system is always upgradable

You can start with a **simple layout**

... Grow

... and then change the entire layout without having to replace anything.

Any Sentinel can be reconfigured by changing (switching around) the communication system with ease.

For example: you can insert a GSM modem inside a Sentinel

- just plug it in
- tell the control center that it is linked by GSM with a radio sub network;
- or the Sentinel can be instructed to use the GSM as backup modem in case of main link failure.



NET@XESS SYSTEMS @ WORK

The **NET@XESS System** is ideal for medium-small to large broadcast management facilities.

Thanks to its modular design, a broadcast management company can grow easily from a few transmitter sites to hundreds or thousands.

Both Radio and TV stations or multistation corporations' benefit from the NET@XESS System.



NET@XESS system in synthesis:

- SNMP, Analog, Digital, IP, RF
- **Limitless** Network Structure
- **Expandable** Site Control Structure

And then...

EVERYTHING IS UNDER CONTROL!

NEETRA Srl

Sede Legale e Operativa: S.P. 231 km 1,300 - 70026 Modugno (BA) - ITALY

Tel +39 080.9148740 - Fax +39 080.9148741 - P. IVA / VAT code IT07537730728

neetra@neetra.com - www.neetra.com - www.waiv.it



www.neetra.com