Communication and connectivity

The ideal solution for integrated system management and data integrity

SITE 486 A

The solution for

- Data centres
- Emergency applications
- Offices
- Service industries
- Industry
- Telecommunications
- Medical

A complete range of connectivity and communication

Thanks to the UPS and STS systems, the sensitive load is protected from electrical problems caused by the insufficient reliability of the mains power supply. However, this essential protection often does not guarantee the maximum availability of electrical energy for the load.

SOCOMEC solutions for connectivity and software for monitoring and managing power supplies can inform the user immediately about system status, and implement automatic procedures to control the electrical system and protect the IT loads. The different solutions can be used for an individual PC, servers, data centres, or solutions with a field bus that are typical of process systems.

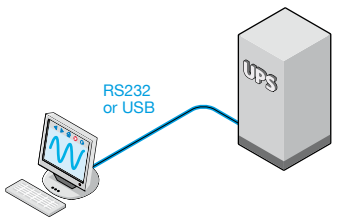
The communication capacity of UPS systems is normally used to meet the following requirements:

- clear, instant information: critical events for the device and system are communicated clearly and immediately by email (to the user), pop-ups or traps (to the local user and remote administrator).
- guaranteed data integrity: depending on the event it is possible to configure automatic user-defined actions (scripts), and manage automatic and ordered shutdown procedures for computers, servers or virtual/physical server infrastructure.
- installation monitoring: electrical measurements and system or installation events are logged continually and made available for the user or SOCOMEC Maintenance & Professional Services to analyse system/load status. As a result it is possible to assess whether or not the optimum architecture has been chosen, or if action is required to increase system reliability.
- device control: for some devices remote control is possible, such as manual management of output sockets or switching of the UPS onto the mains, inverter or stand-by.

Local monitoring solution

LOCAL VIEW is a monitoring and management software for UPS systems via USB or serial RS232 allowing the system's automatic shutdown in the event of a prolonged power cut. LOCAL VIEW avoids data losses and system damage when the PC, workstation or server are not supervised by the operator during the power cut. Its simple and user-friendly graphic interface makes it easy to use even for less experienced users. Available in several languages, LOCAL VIEW provides clear, immediate and detailed information about the status of the UPS.

It can be easily updated (via internet) to ensure the highest level of protection to PC, workstations and servers. LOCAL VIEW is compatible with Windows x86 and x64 platforms, LINUX distributions and MAC OSx. LOCAL VIEW software is available from SOCOMEC's website for free download.



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LOCAL VIEW

Network solutions (UPS connection to the LAN)

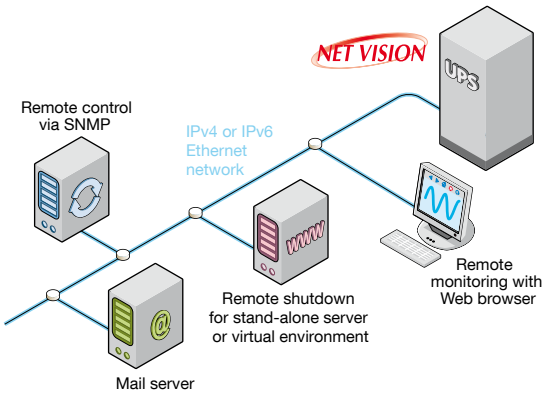
NET VISION is the most common Ethernet interface for use with SOCOMEC products. It is a communication interface designed for business networks. The UPS behaves exactly like a networked peripheral, it can be managed remotely and allows the shutdown of server-based workstations.

NET VISION allows a direct interface between the UPS and Ethernet network avoiding dependence on the server. It is therefore compatible with all networks and multi-OS since it interacts via the Web browser.

The main specifications and functions are as follows:

- 10 / 100 Mb Ethernet connection (RJ 45),
- UPS monitoring screen via a Web browser,
- remote shutdown of stand-alone server (compatible with JNC) or Virtual environnement (compatible with VIRTUAL-JNC),
- notification of faults via email to up to 8 addresses,
- UPS management via SNMP protocol,
- monitoring of the operating environment (optional EMD temperature and humidity sensor). Configurable alarm trigger, notification via email.

MOD 067 A



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EMD (Environment Module Device)

EMD is a device to be used in conjunction with the NET VISION interface and provides the following features:

- temperature and humidity measurements + dry contact inputs,
- alarm thresholds configurable via Web browser,
- notification of environmental alarm via email and SNMP traps.

Communication and connectivity

Software

Management solutions

Network solutions (shutdown via network)

Controlled network server shutdown is managed by the "shutdown client" which, installed on the remote server, enables its shutdown. JNC (JAVA & .NET Shutdown client) is a small software programme that is installed in computers to be shut down.

It shows UPS status and executes the shutdown sent by UPS Ethernet interface, such as NET VISION. It has been developed by SOCOMEC on a JAVA and .net platform.

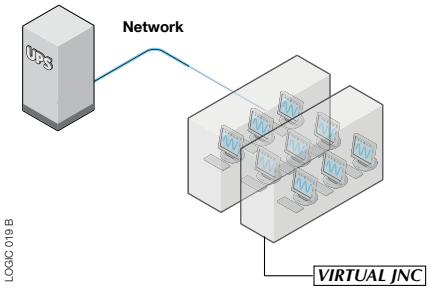
JNC software agent (JAVA & .NET client) is compatible with the latest Windows® operating system versions, common Linux distributions, and Mac OS X® operating system. JNC software is available from SOCOMEC's website for free download.

Virtual system solutions

Server virtualisation, which makes it possible to exploit the advantages of IT infrastructure consolidation, is becoming increasingly widespread. As a result, the correct management of virtual machines in the event of a fault with the electric power supply system is an increasingly common requirement. VIRTUAL JNC is the SOCOMEC solution especially for virtual systems. It fully supports virtual machine shutdown, by acting on the physical server to correctly shutdown all virtual machines running on that server.

On Virtual Environment systems it is possible to manage the order of virtual machine shutdown (defining the shutdown as sequential or staggered)) and systems with more than one host (also in a cluster configuration), in a simple, efficient manner. VIRTUAL JNC is compatible with all SOCOMEC UPS systems that support shutdown management via LAN. VIRTUAL JNC is compatible with VMware vCenter™ / vSphere, Microsoft™ HYPER-V and Citrix XenServer.

VIRTUAL-JNC requires to be installed in a Windows® virtual machine. VIRTUAL-JNC software is available in the SOCOMEC's web site for free download.



Centralised supervision solution

Central UPS supervision

On installations that use various UPS systems, the network administrator (or system administrator) can request a simultaneous view of all UPS systems from a single console. In general, devices are monitored with BMS (Building Management Systems) programmes which use JBUS/MODBUS protocol to communicate or with NMS (Network Management Systems) programmes, which use SNMP protocol for data exchange.
In industrial environments it is also common to use the PROFIBUS or PROFINET protocol to communicate with centralised control and automation systems. These protocols are supported by SOCOMEC products and can therefore be interfaced with monitoring programmes.

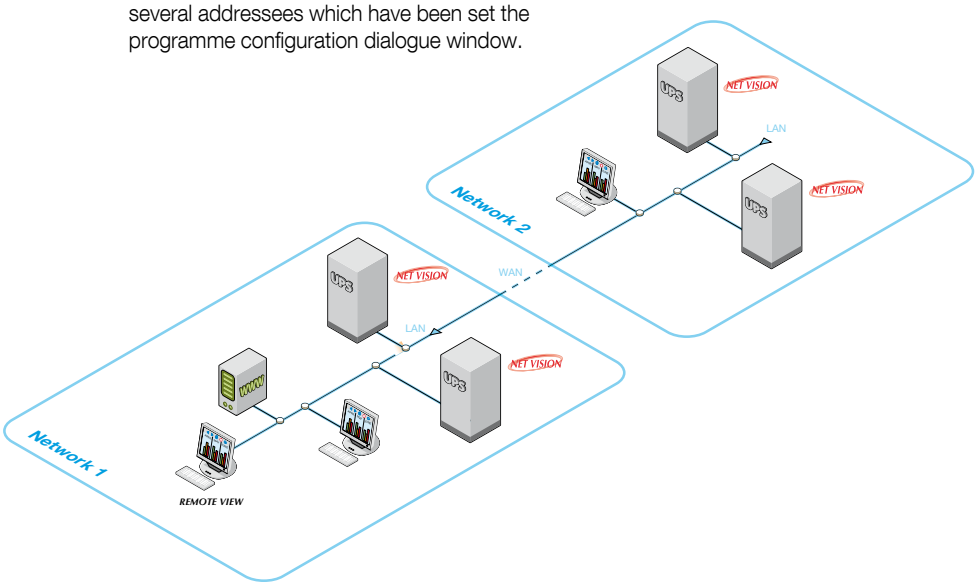
REMOTE VIEW

In addition to these protocols, another SOCOMEC solution is REMOTE VIEW, a central monitoring programme for UPS systems over an Ethernet network, which is simpler and less expensive than the complex NMS platforms.

REMOTE VIEW is an application able to monitor simultaneously up to 1,024 devices equipped with NET VISION card or box through the Ethernet network. Users are provided with tree-view (hierarchy structure can have up to 8 levels) and list-view. When an alarm is triggered in one or other monitored UPS, (trap event), the icon that represents the UPS will change colour according to the severity level, sending an email to several addressees which have been set the programme configuration dialogue window.

If the programme is running in the background, a pop-up message appears. Input and output voltages, battery capacity and load percentage are continuously monitored by the REMOTE VIEW programme. Plant supervisors and technicians can monitor all the UPS in the same programme window.

REMOTE VIEW runs on Windows® 2000/2003/2008 (R2)/XP/VISTA/7 with administrator rights. REMOTE VIEW software is available from the SOCOMEC's website for free download.



socomec
Innovative Power Solutions

MODBUS TCP interface

The interface is directly connected to the network via RJ45 connector (10 / 100Mb Ethernet connection).

MOD 067 A

Dry contact interface

The dry contact interface enables the control of up to three digital inputs and four outputs for information processing:

- 3 insulated inputs (external contacts):
  - emergency stop devices (ESD),
  - operation with generating set,
  - battery protection status.
- 4 change-over contact outputs:
  - general alarm,
  - back-up operation,
  - bypass operation,
  - preventive maintenance request.

These are fully configurable. Depending on the range, several ADC cards can be fitted to the UPS.

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BACnet/IP interface

The interface is directly connected to the network via RJ45 connector (10 / 100Mb Ethernet connection).

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Serial port interface

Several UPS have RS232 and/or RS485 with JBUS/MODBUS protocol embedded.
Should the UPS need an isolated RS485 port, an additional interface card can be used.

- The serial connection interface makes it possible to communicate with BMS systems (Building Management Systems) using JBUS/MODBUS or PROFIBUS/PROFINET protocols (on request).
- All UPS information can be remotely accessed:
  - status, measurements (V, A, kVA, t°…) alarms, controls.

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