

SIP-2

Versatile Router



Able to operate as a WAN router or as a serial to IP encapsulation device

- 2G, 3G and 4G transmission technologies
- Full routing / switching capabilities
- Easy integration of Non-IP serial devices into a secure IP network
- Transport of several serial protocols (IEC 60870-5-101/102/103, PROCOM, DNP3.0, DLMS, etc.)
- 104-101 Gateway



SIP-2



Description

Product overview

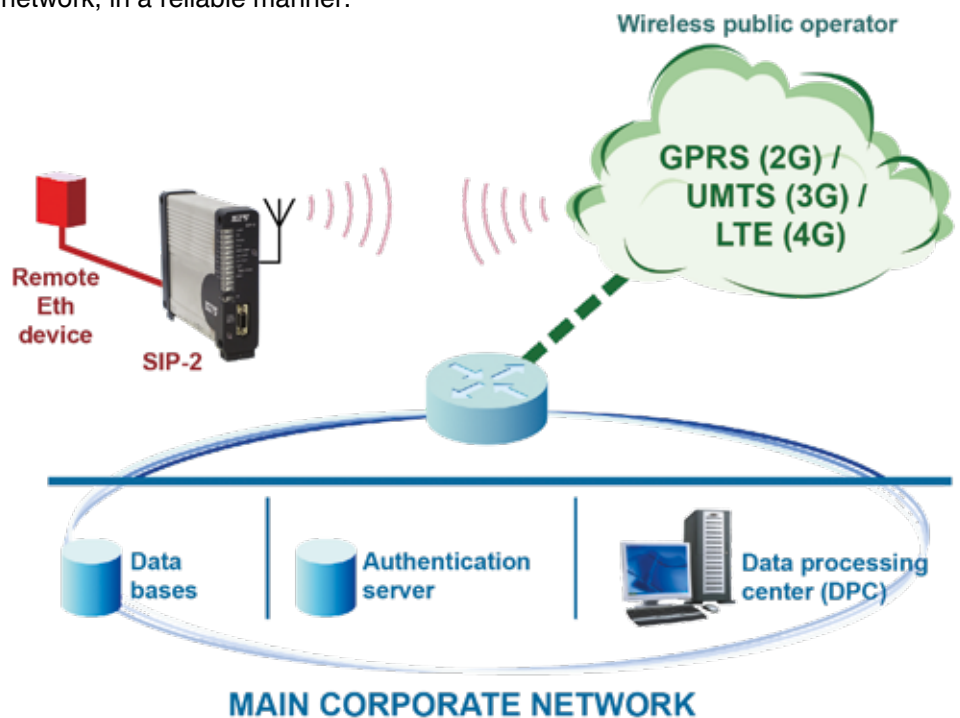
The SIP-2 is a versatile router node especially designed to operate as a WAN router and a serial to IP encapsulation device.

As a WAN router provides layer 3 connectivity by using public wireless networks in order to:

- Safely integrate an existing remote IP network with an Intranet,
- Allow safe access to the devices connected to the router from and to the Internet,
- Integrate a remote device (host), independent or connected in a remote LAN, in an existing or new IP network, in a reliable manner.

The SIP-2 admits three options as regards the cellular interface, which are mainly differentiated by the bandwidth they can offer the user.

The dual SIM operation option allows increasing the service availability by providing access to more than one operator.



As an encapsulation device is able to transport several serial protocols allowing an easy integration of Non-IP serial devices into a secure IP network.

The GW104-101 model permits a control center to manage a 101 protocol-based RTU as if it were a 104 protocol-based RTU.



A wide range of configuration options

Applications

- Remote access to local networks or to Ethernet devices.
- Serial to IP encapsulation on wired interface.
- Serial to IP encapsulation on GPRS network.
- Back-up and Alternative Control links.
- On-line connection to a surveillance video camera with Ethernet output.
- Connections in remote locations (mountainous and rural areas, wind farms, etc.).
- Access to IEC 60870-5-104 remotes.

Technical specifications

Router characteristics

Automatic port speed detection, Static routing information (configured by the user), Dynamic routing information (RIP and OSPF routing protocols), VRRP redundancy protocol, NAT and PAT rules, IPsec tunnels with DMVPN (Dynamic Multipoint VPN) support, NHRP (Next Hop Resolution Protocol), IPIP (IP over IP) and GRE tunnels, VLANs management per port, Filtering, Stateful IP firewall, Quality of Service per origin and/or destination IP address, Quality of Service per type of traffic (DSCP or TOS) and service (protocol and port).

The Fast Ethernet ports can have different IP addresses.

Encapsulation protocols

IEC 60870-5 101/102/103 (the first two with the variants to support link addresses of 1 or 2 bytes), DLMS, GESTEL, MODBUS, DNP 3.0, SAP20, PROCOME, Pid1 and Twc.

Available models depending on COM ports

- RS-232 (DB9) service console and none COM ports.
- RJ-45 service console and one COM RS-232/RS-485 (RJ-45) port.
- RJ-45 service console and two COM RS-232/RS-485 (RJ-45) & RS-232 (DB9) ports.
- 2 digital inputs and outputs (in female DB9 connector), RJ-45 service console and one COM RS-232/RS-485 (RJ-45) port.

Equipment interfaces

- 1 or 2 Fast Ethernet ports type 10/100Base-Tx with RJ-45 connector.
- 1 wireless WAN interface 2G (GSM/GPRS), 3G (UMTS/HSPA) or 4G (LTE) with 1 or 2 external SIM card slots.
- 1 service console (DCE) with DB9 (RS-232) or RJ-45 connector.
- 1 asynchronous serial port (COM), with female RJ-45 connector (DCE), configurable by software for RS-232 interface or RS-485 interface (2-wire or 4-wire).
- 1 additional asynchronous serial port (COM), with female RJ-45 connector (DCE), configurable by software for RS-232 interface.
- 2 digital inputs and outputs (in female DB9 connector) galvanically isolated, which can be managed via SNMP.

Equipment management

Local and remote management through a console (115200 bit/s) or a built-in web server (http/https), SSH and Telnet server.

Additional services

Support of SNMPv1, SNMPv2c and SNMPv3 protocols, as well as other protocols and services such as NAT, DHCP, NTP/SNTP and TACACS+. TLS 1.2

Mechanical characteristics

- DIN rail mounting (by means of optional accessory) or wall mount
- Dimensions: Height: 150 mm (with no cover for wires); Width: 40 mm; Depth: 177 mm
- Weight: 600 g

Operating conditions

- Power supply: 19-75 V_{DC} (isolated), 12 V_{DC} (isolated), 12-24 V_{DC} (isolated) or Universal (88-300 V_{DC}, 88-265 V_{AC})
- Max. power consumption at 48V_{DC}: 3.5 W
- Temperature and humidity: from -40°C to +70°C and relative humidity not greater than 95%, in accordance with IEC 721-3-3 class 3K5 (climatogram 3K5)



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