# SOFREL FR4000

## FRONT-END PROCESSOR FOR NETWORKING SOFREL TELEMETRY DEVICES

SOFREL FR4000 is an effective solution for opening up telemetry networks to supervisory control software and central systems developed by operators.

As the central unit, FR4000 centralizes all SOFREL telemetry equipment communications and transmits the data via an Ethernet link (LACBUS-PC protocol) to operators' SCADA systems.

This data exchange solution is suitable for both private APN networks that provide a 100% secure barrier preventing intrusion into the telemetry network and public APN networks alike. In the case of the latter, SG4000 software will also be required to secure network data transmissions over the public APN.

Efficiency

Security

Interoperability

## PRODUCT advantages

- Secure sharing of devices between a private APN and another network via a secure VPN tunnel
- Interaction with SG4000 for operation on Public APNs
- Centralization of 500 Remote Terminal Units and an unlimited number of data loggers
- Automatic switchover to a backup medium in order to ensure proper data transmission in case of communication failure with a device
- Easy switchover from multi-source networks to IP

## BENEFITS

- Network operation via 4 central SCADA stations
- Distribution and sharing of device data with third party networks
- Secured exchanges

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# IP and multi-source centralization and communication

## Private APN

Creation of a 100% secure barrier

## Network operation through 4 central stations

Opening of the telemetry network to supervisory control software and central systems developed by operators

Ethernet

## FR4000

**COM4**

USB

### Ethernet
### GPRS - 3G

IP-based devices

### PSTN - GSM
### Radio UHF - PL/DL
### Series - SMS

Multi-source devices

## Network data transfer

• Access to all data (current values, alarms, history, reports, operating parameters, etc.)

• Transmission of operating instructions

• Dual access support for each RTU (backup device in the event of main storage medium malfunction)

## SOFREL Com4

SOFREL rack modems: up to 2 Com4 for 8 communication cards ( PSTN, GSM, DL/HF)
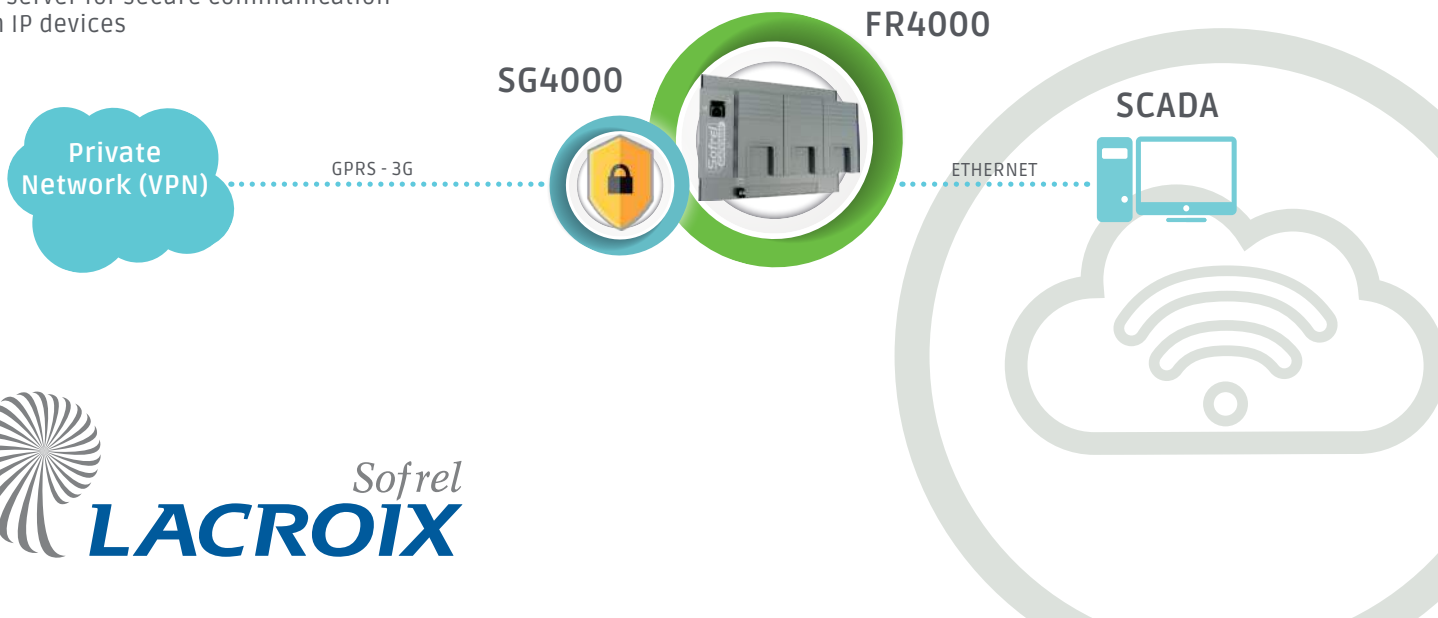
## Centralization of SOFREL devices

Dialog (LACBUS - SOFBUS) with 500 RTUs and an unlimited number of SOFREL data loggers, regardless of their generation
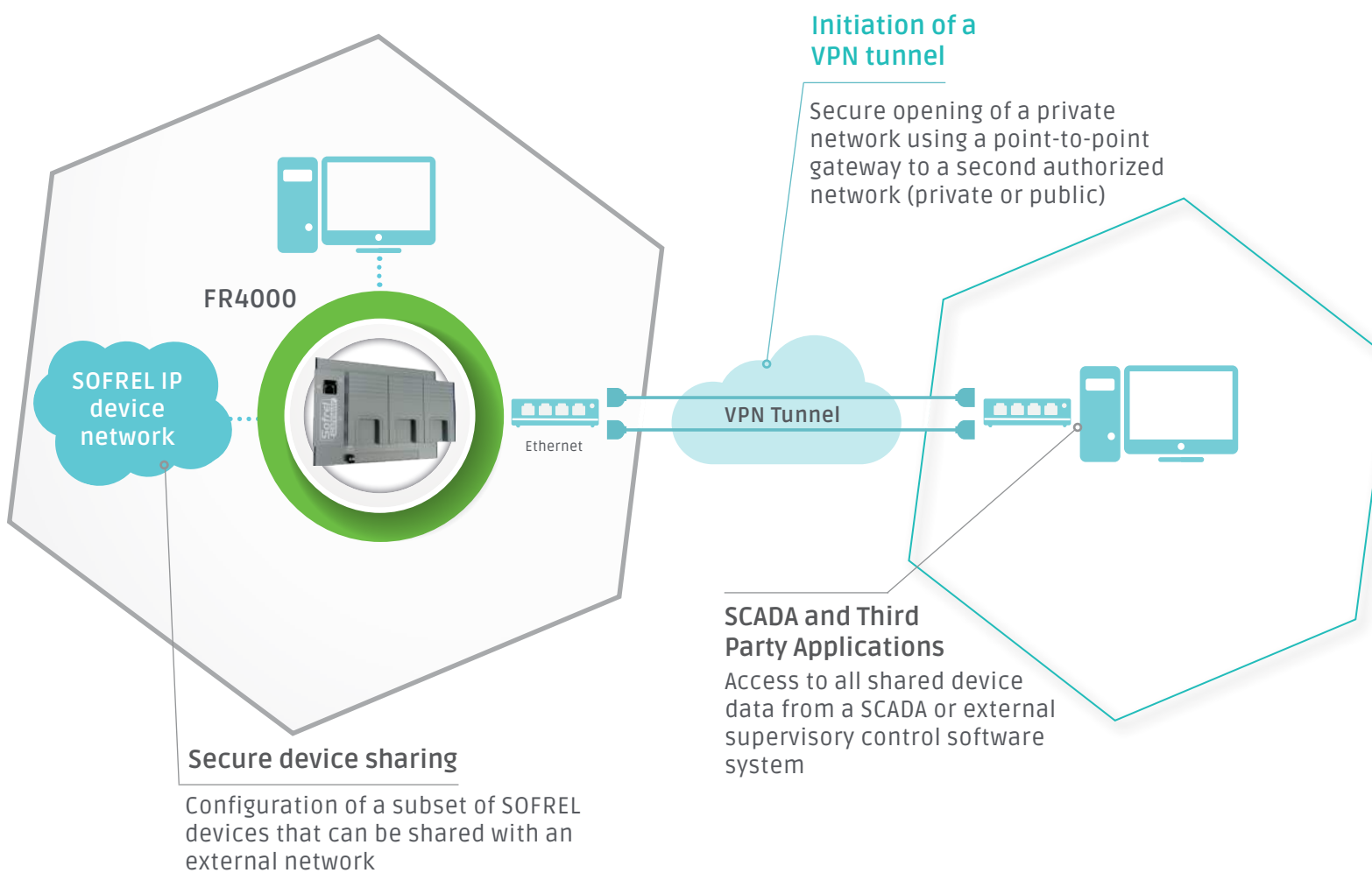
# IP security on public APN network

## SOFREL SG4000

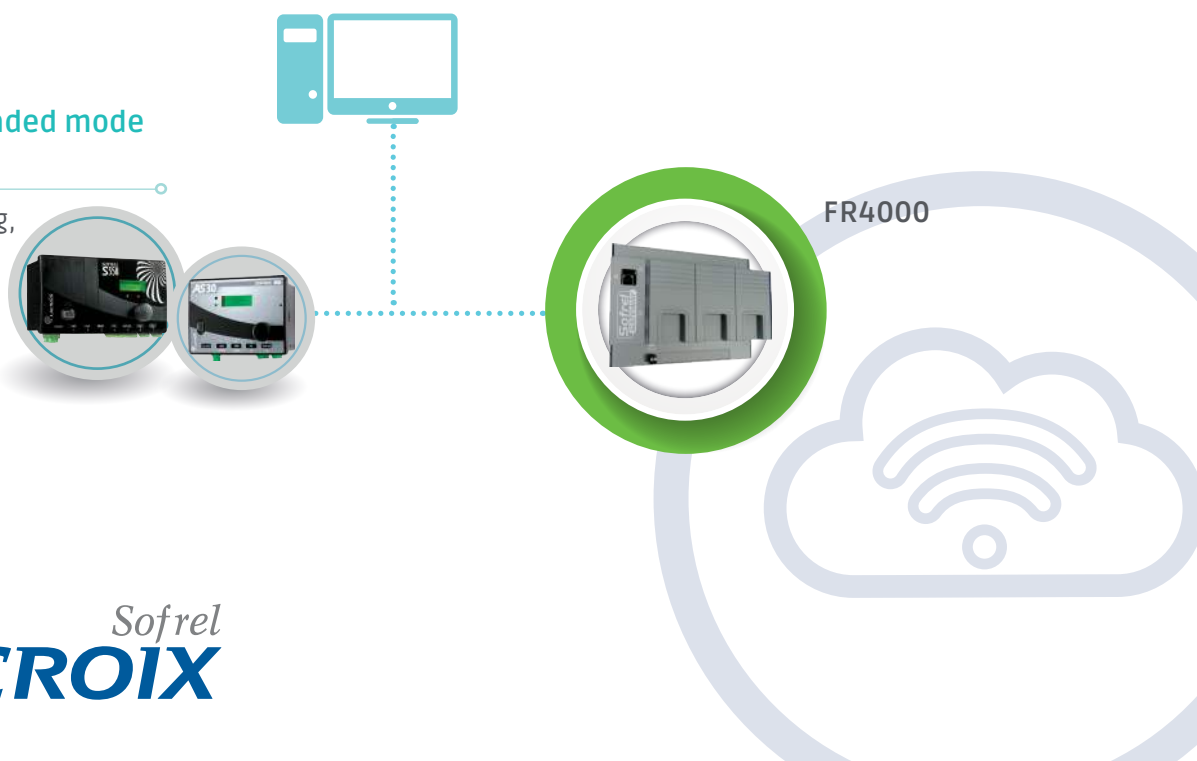VPN server for secure communication with IP devices

**FR4000**

**SG4000**

**SCADA**

### Private Network (VPN)

GPRS - 3G

ETHERNET

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# Other FR4000 use cases

## Secure sharing from a private APN to another network

**Initiation of a VPN tunnel**

Secure opening of a private network using a point-to-point gateway to a second authorized network (private or public)

FR4000

SOFREL IP device network

Ethernet

VPN Tunnel

**SCADA and Third Party Applications**

Access to all shared device data from a SCADA or external supervisory control software system

**Secure device sharing**

Configuration of a subset of SOFREL devices that can be shared with an external network

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## Monitoring and stand-by duty downgraded mode by «Watchdog» equipment

**Stand-by duty dowgraded mode via AS or S500**

FR4000 fault monitoring, communication cards, SCADA links and SOFREL RTUs

FR4000

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# Operational specifications

| FEATURES | CAPACITIES |
| --- | --- |
| **Devices** | 500 remote telemetry units |
| | Unlimited number of data loggers |
| **Ethernet interface** | 4 **LACBUS-PC servers** for exchanges with **4 supervisory control systems** |
| | 1 **MODBUS-TCP serve**r for "reporting" devices |
| | 4 clients for queries from RTUs |
| | 40 servers for receiving spontaneous device transmissions |
| **Means of communication with devices** | Maximum 8 cards from the following:<br><br>- PSTN (RTC communications)<br>- GSM (GSM-Data and GSM-SMS communications)<br>- DL/HF (Motorola Radio Communications or Private Line)<br>- RS232 (for connection of an external radio modem) |
| **Configuration models** | 50 communication models with RTUs<br>10 models for data relay from RTUs to SCADA<br>1 model for data relay from data loggers to SCADA |