

# System Monitoring & Control

Energy for a better life

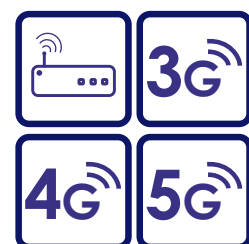


EN

SMS



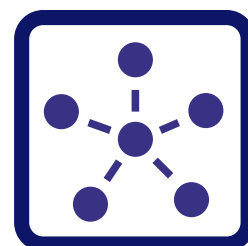
LAN/  
GSM



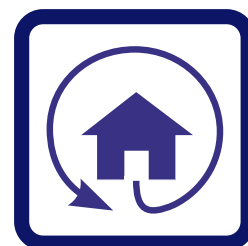
SNMP  
Modbus



SCADA  
EMS



Energy  
Storage



Communication Systems

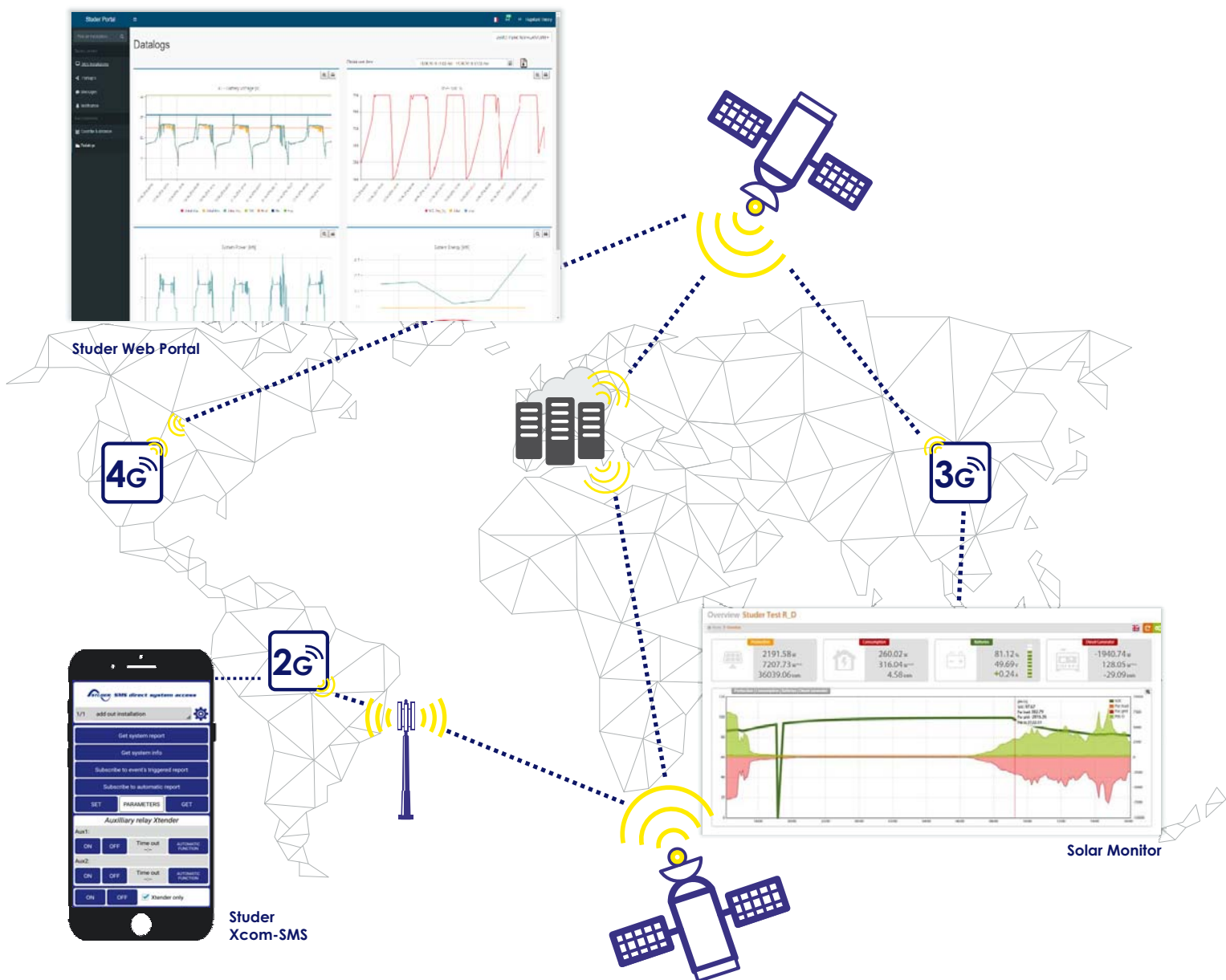
swiss made power 

# Studer Innotec communication solutions

In today's digitalised world, monitoring and control is becoming increasingly important. In the process, always larger volumes of data should be transmitted at highest possible speed. As a result, the transmission technologies are rapidly evolving.

Studer offers a wide range of transmission tools so that you are constantly connected to your system. Whether a simple system overview for the user, security and warning messages or as support tool for the technician, there is the right solution for every need.

The solutions range from 2G technology to satellite transmission, SNMP / Modbus and professional SCADA integration.





## Simple SMS access

The simplest and most cost-effective access to your installation.



A standard, local, prepaid SIM card provides a secured access to your remote Studer power system by sending or receiving an SMS.



### Key Points

- Use of Prepaid SIM card possible
- Free download for Android devices
- System report
- Fast access to parameters including auxiliary relays
- SMS Machine to Machine

More info



Download the free application to get a smart access to your system.

Studer Xcom-SMS Access



## Internet based access

Interface for a remote interaction with the installation including real time information, access to all settings and to the last 30 days of log files.



The intelligent plug & play solution allows the configuration of alarm messages to be sent to one or more persons by email or SMS.



### Key Points

- Real time display
- Parameter setting access
- Log files from last 30 days
- Use of local SIM card
- Notification by email or SMS
- System sharing

More info



## LAN based communication sets

With the LAN-based solution, a wide variety of transmission units can be used to establish the communication with our web portal. In addition, the solution offers the same benefits as the 3G application shown above.

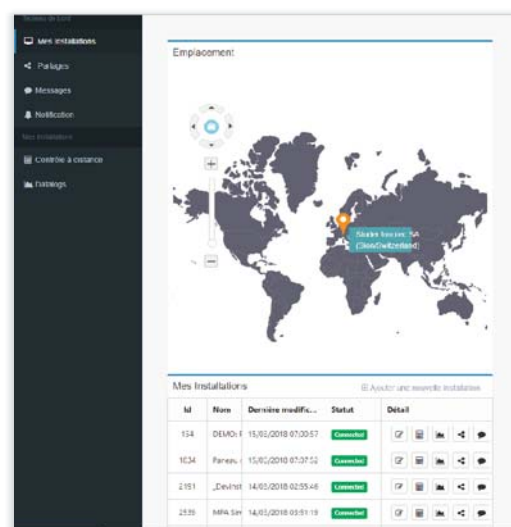
### Studer Power Electronics



### Transmission Device



### Studer Web Portal



**Key Points** Use 3G, 4G or 5G modems compatible with your local network operator

More info



# Energy management system (EMS) and energy storage sets



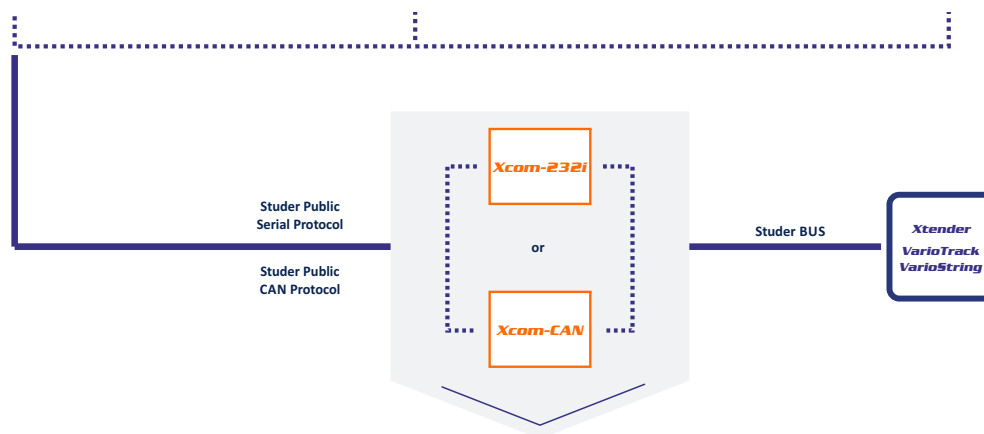
With the integration of a SCADA unit, a completely individual working system can be realized, which works according to the specific requirements of the user. For this advanced application with an external SCADA system we offer interfaces with comprehensive and open communication protocols. They allow to remotely read all information and also to modify the configuration parameters of an Xtender / VarioTrack / VarioString system.

Many customers have developed complete storage systems with this open communication option.

The Xcom-232i with the RS232 interface, or the Xcom-CAN with the CAN interface is used for such applications.

## SCADA / EMS

## Energy Storage



Full operation control over the Xtender, VarioTrack and VarioString for an individual application

The protocols are open, accessible and for free

- CAN protocol
- Serial protocol

Uni- or multi cast, the products can be controlled individually or as a group

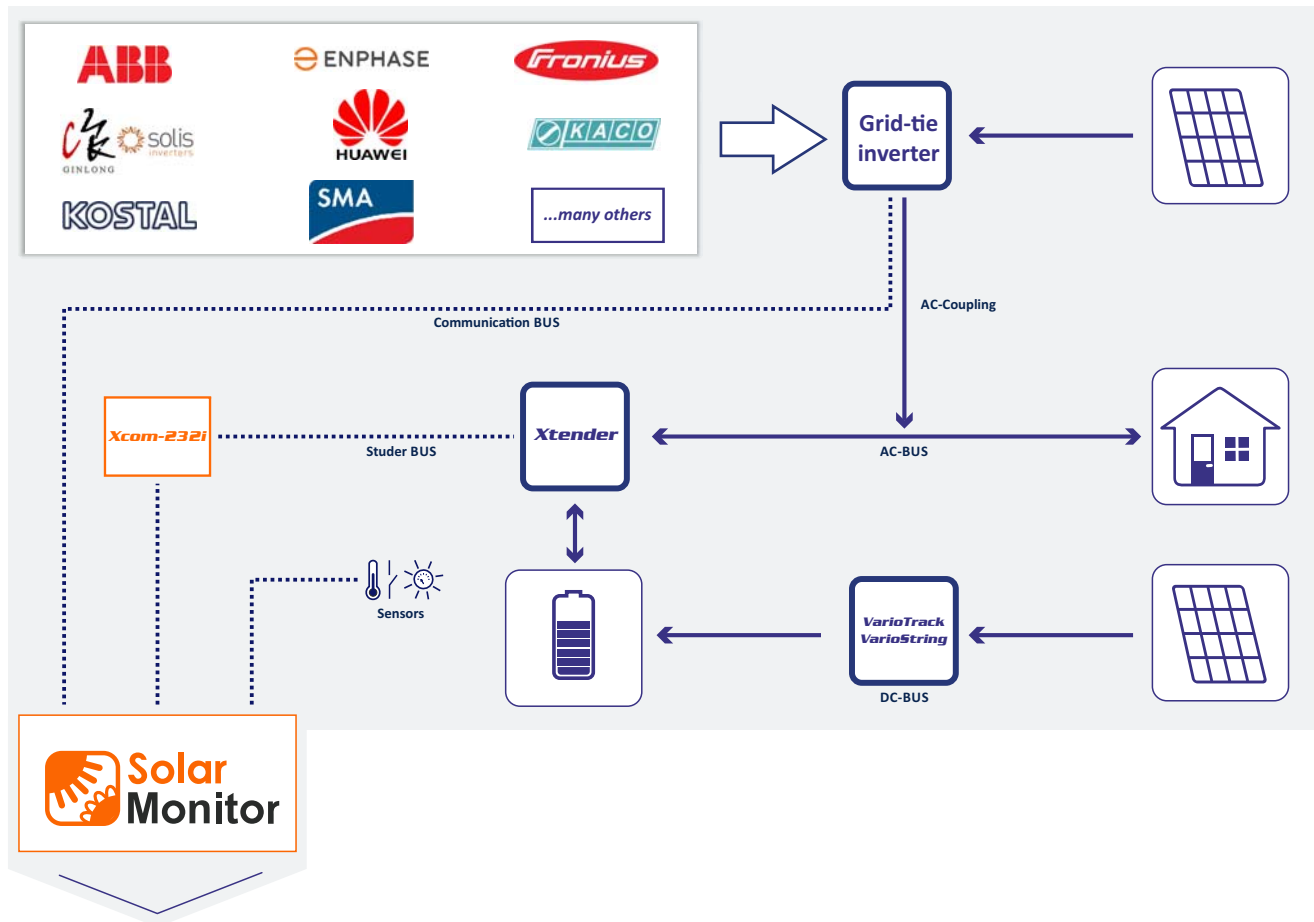
Pre-programmed SCADA / EMS systems in which the Xtender, VarioTrack, VarioString can be integrated for own systems

Complete storage systems with Studer components which can be obtained as a ready-to-use solution

# Solar Monitor™ platform

Modbus  
Sunspec  
SNMP

Turnkey solution with the possibility to add external devices for a monitoring integration of additional PV production plants or different sensor measurements, for local applications with Modbus or SNMP, or internet based applications for monitoring.



## Monitoring



Smart gateway to support the client with a fast and smart access to system information, real time monitoring and data-logging

Alarm notification by SMS or Email

## Modbus



Full Modbus (TCP) IEC 61131-3 library allow easy integration in any SCADA / PLC system

Sunspec compatible

## SNMP

The SNMP V.3 uses strong encryption to prevent fraud and is widely used by local network operators. Off the shelf compatible with different network monitors such as HP Open view, Nagios, Paessler PRTG, Castlerock SNMPc, The Dude (Mikrotik), etc.

## External devices

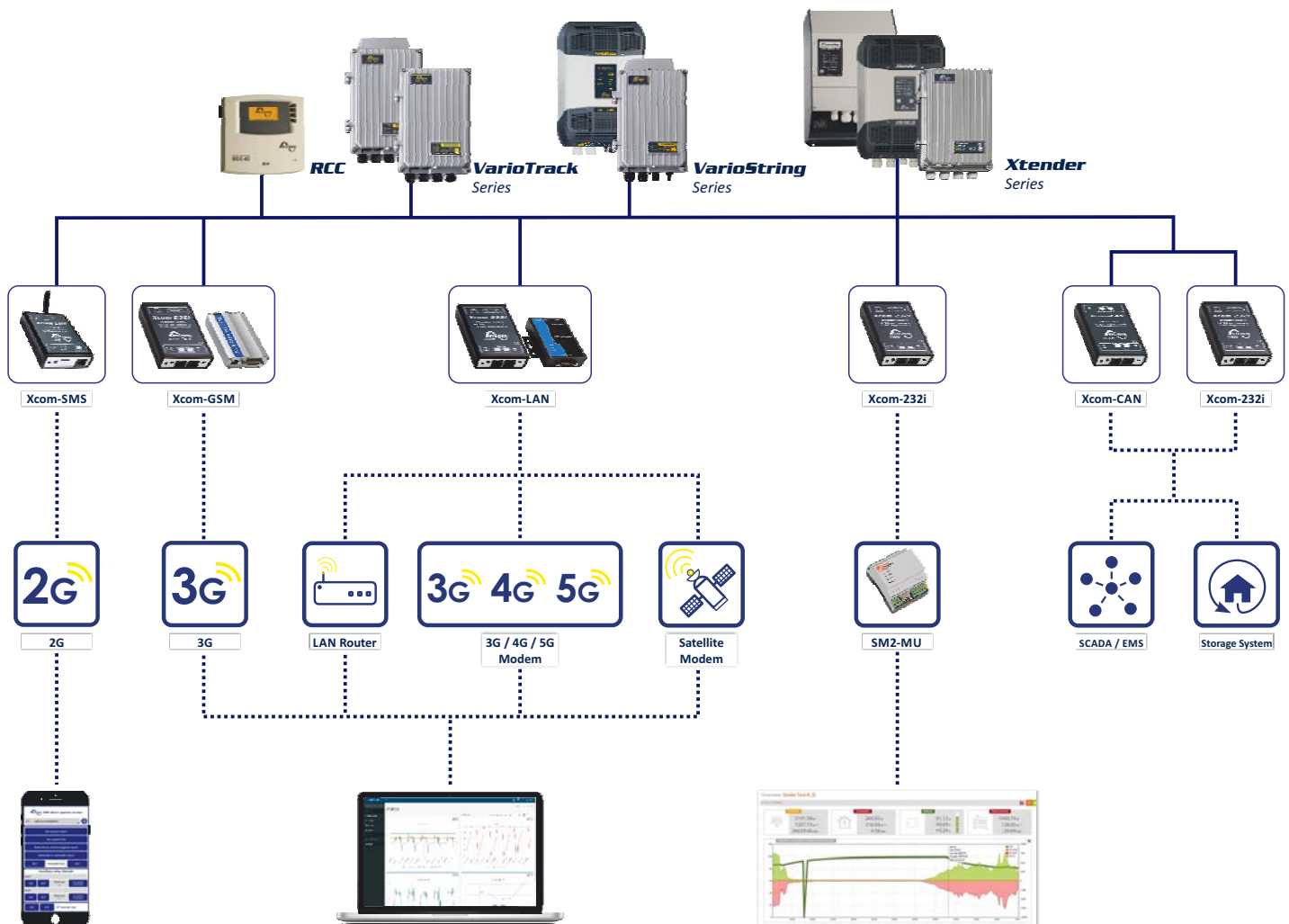
Seamless integration of all known grid-tie inverter brands

Common solar production monitoring

Compatible with many sensors (energy, irradiation, temperature, digital input, wind speed)

**Solution in cooperation with Solar Monitor**

# System Monitoring & control solutions



## Energy for a better life