

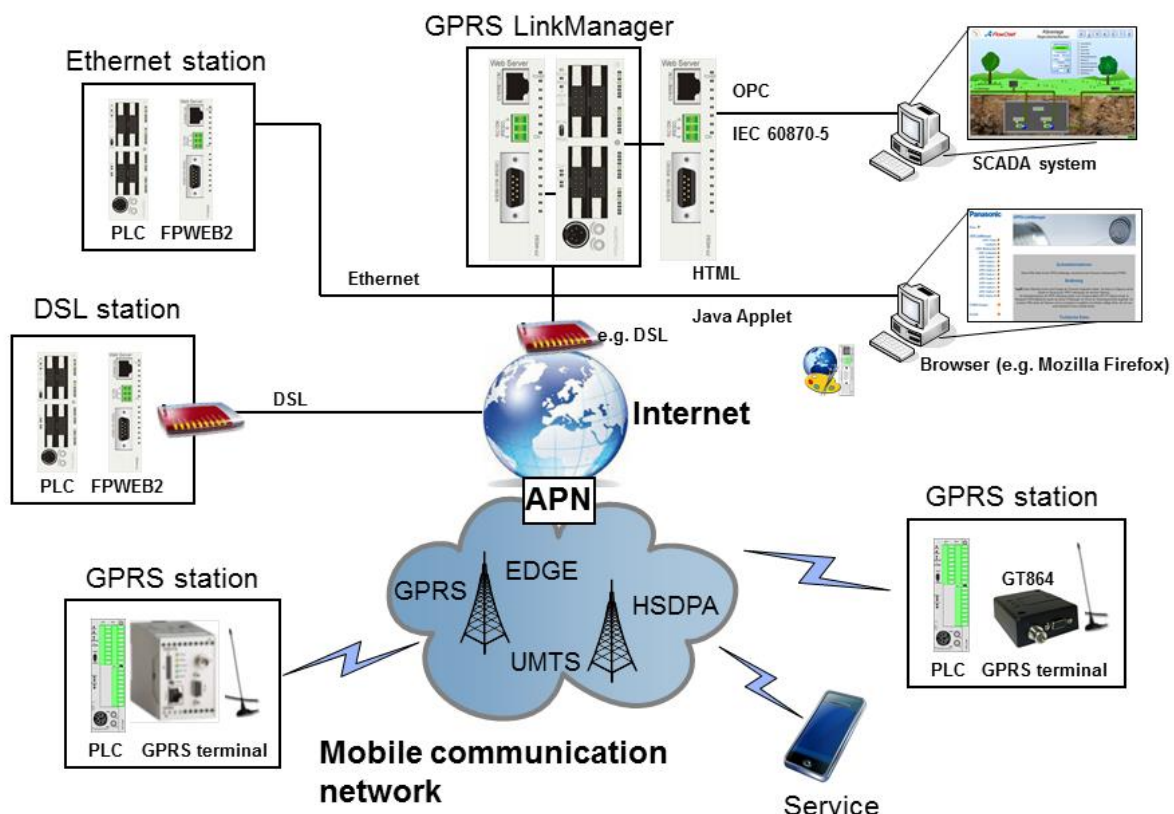
Telecontrol via GPRS and Internet Complete solution with Panasonic LinkManager

The mobile data service GPRS allows you to transmit data wirelessly and inexpensively between remote technical systems. GPRS stands for General Packet Radio Service, and is a fast and efficient Internet-based data service within the GSM mobile phone network. Operating costs for data transmission result from the amount of data actually transmitted or are based on flat-rate tariffs, and so are predictable.

GPRS technology is best suited for remote applications that collect data, e.g. fill levels, flow rates, messages, alarms, etc., and transmit such data to a control center. The process also works the other way around, i.e. commands and target values can be sent to the remote stations. When using the FP Web-Server and the FP Web Expansion Unit, all their functionality (including data display on HTML pages and data logging) is additionally available.

Along with the GPRS medium, remote stations can be connected to the central LinkManager via Ethernet and DSL. The PLC program and data concept remain the same.

Communication possibilities with GPRS LinkManager



Panasonic

Operating principle:

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- The substations themselves establish a secure TCP/IP connection to the central LinkManager. The prerequisite is either a unique, public IP address with Internet access (DSL router) or an assignment using DynDNS.
- After the stations have successfully connected to the LinkManager, they can spontaneously exchange their data with the central station. Commands and target values can be sent to the remote stations at any time. The central station can initiate a cyclical general query if needed. Data exchange between substations is certainly also possible. The LinkManager acts as a switching center in this case.
- Many operators want their SCADA system to work independently and do not want to connect it to the Internet for security reasons. The LinkManager's built-in insulation ensures a secure connection for this technology and prevents the system from being hacked.
- Panasonic offers a complete solution which allows up to 10 substations per LinkManager to exchange data with the control system and among each other – and you don't need a direct Internet connection for the SCADA system!

Common applications include water and sewage engineering, energy technology, traffic control, mobile data communications, and building facility management.

Ordering information for the main station:

LinkManager	Part no.
Panasonic PLC FP-Sigma, FP-X, FP2SH or FP7 with COM port	
FP Web-Server 2 , Ethernet module with 10/100MBit/s and modem interface	FPWEB2
Optional: FP Web Expansion Unit for FPWEB2 for the following additional functions, among others: storing PLC data on an SD card, Ethernet <> RS485C conversion (MEWTOCOL), Ethernet <> USB conversion (to remotely program the GT and FP-X series)	FPWEB2EXP
Connection cable FP0R/FP-X/FP-Sigma/FP2SH-Tool-Port (angled type) <-> FPWEB2 (open-ended), 2m	AIGT8192D
Connection cable FP0R/FPX/FP-Sigma/FP7 COM port (open-wire) <-> FPWEB2 (SUB-D9), 0.5m	AFB85D018
Accessories	
DSL router Necessary for connecting to the Internet, e.g. INSYS-MoRoS or "Fritzbox"	Upon request
Optional: Connecting to process control	
FP Web-Server 2 , Ethernet module with 10/100MBit/s and modem interface	FPWEB2
FP OPC-Server , the standard interface between Panasonic PLCs and SCADA software solutions.	AFPS03510D

Order information substations:

Panasonic automation products	Part no.
Panasonic PLC FP0R, FP-Sigma, FP-X, FP2SH or FP7	
GPRS user library Function blocks for GPRS communication (including German and English online help and examples as well as a base project for GPRS LinkManager), available free of charge in the download center	
Connection cable COM port screw terminal (open-wire) <-> GPRS/GSM terminal/modem//FP-Safe (9-pin Sub-D connector), approx. 0.5m	CABMODPLC111D
GPRS components	
GPRS terminal station with automatic dial-up	INSYS-GPRS-5.1, or GPRS_GMOD_S3 or GT864-Quad
Pentaband antenna with magnetic base, FME jack, cable length 3m, antenna length 72.5mm, amplification 2.2dB	12021
SMA connector to FME connector , to connect an antenna with an FME jack to the GPRS_GMOD_S3	SMA-FME
Mobile data service provider	
Contract with a GSM service provider: SIM card (data card) Ask your local service provider for a table with available data tariffs	<i>Provided by Customer</i>
Optional: Web-server function	
FP Web-Server 2 , Ethernet module with 10/100MBit/s and modem interface	FPWEB2
Optional: FP Web Expansion Unit for FPWEB2 for the following additional functions, among others: storing PLC data on an SD card, Ethernet <> RS485C conversion (MEWTOCOL), Ethernet <> USB conversion (to remotely program the GT and FP-X series)	FPWEBEXP

Software/tools:	
Control FPWIN Pro V7 programming software for all PLCs	FPWINPRO7S
Programming cable for all PLC types except FP7	AFC8513D
Programming cable , USB A to Mini USB (5 pin), 1.8m, for FP7 and FP0R	CABMINIBUSB5D
FPWEB Configurator Tool Ver. 2 Windows software for FPWEB2 and FPWEBIEC	FPWEBTOOL2D
Optional: FP Web Designer , software to create HTML visualization for FPWEB2, economy version with 250 variables, 15 page and 1 trend	AFPS36510-E