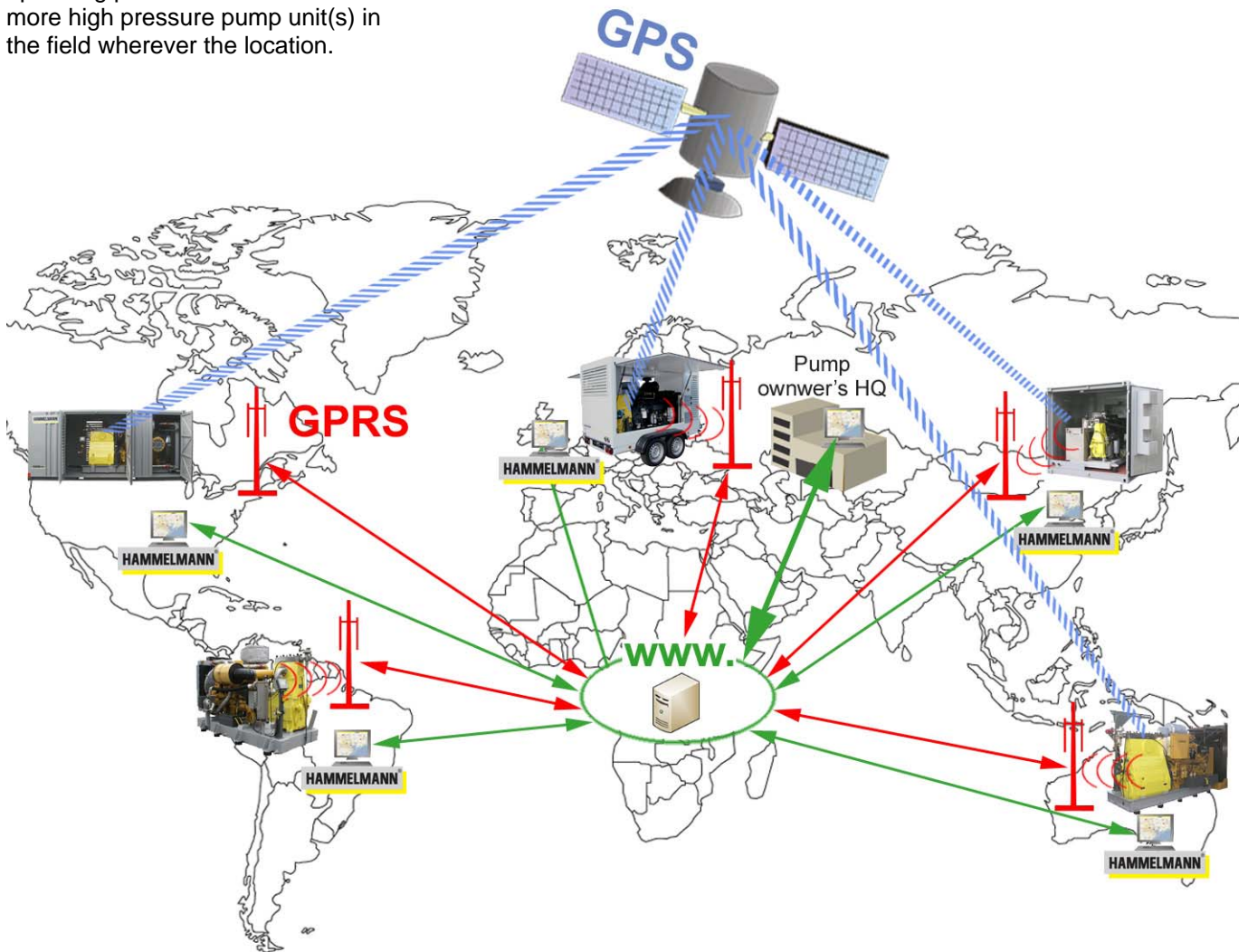


Hammelmann telematics

Hammelmann telematics enables permanent access to the operating parameter data of one or more high pressure pump unit(s) in the field wherever the location.



User functions

Orientation

The telematics modules receive positional data from the GPS*. These are transmitted at regular intervals to a server in the World Wide Web and saved. The pump owner/operator can constantly track the position(s) of the unit(s).

Operational data transmittal

The operational data is permanently transmitted by GPRS* via local radio masts to a server in the World Wide Web and saved.

Operational data display

The data on the server is displayed over an internet site accessed by user name and password. The following data is available over the web page:

- High pressure
- Engine RPM
- Unit operating hours
- Pump operating hours
- Fuel tank content
- Fuel consumption
- Other values if required

Hammelmann Service

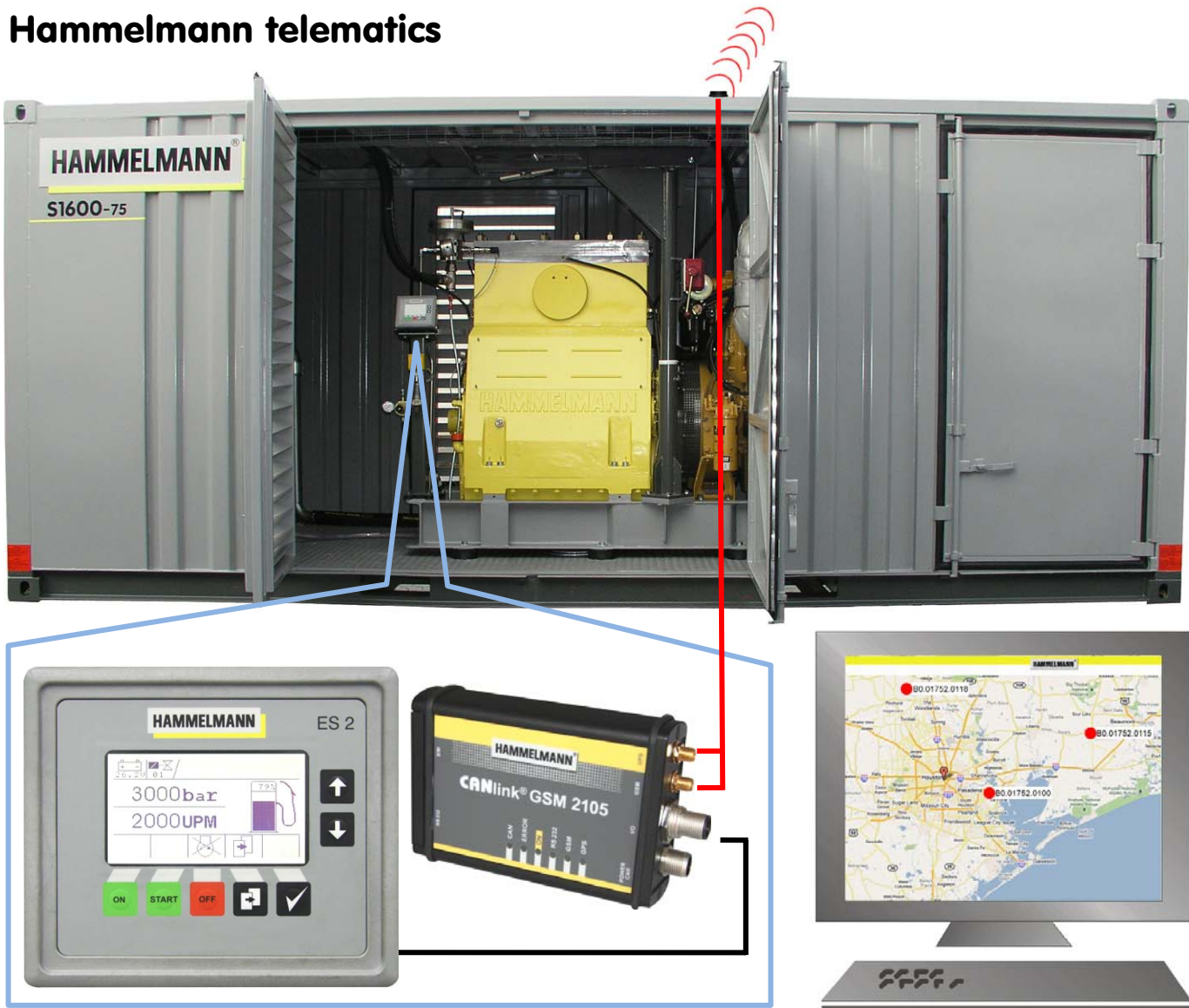
If required Hammelmann can make a live connection to the pump unit ES 2 controller via the server enabling the following servicing functions:

- Operational data diagnosis
- Fault protocol read out
- Set/adjust operating parameters
- Remote maintenance

* GPS = Global Positioning System

* GPRS = General Packet Radio Service

Hammelmann telematics



ES 2 controller

The unique to Hammelmann ES 2 is based on SMD technology. The microprocessor controls the complete high pressure pump unit.

Both diesel driven units and electrically driven units with frequency converter can be controlled by the ES 2. It carries out complex control, monitoring and regulating duties and collects data for various diagnostic functions.

Actual diesel engine data is transmitted by the CAN Bus interface to the ES 2 controller. All possible engine faults are displayed as a fault code with the most important displayed in clear text and saved in the fault protocol.

CANlink module

The Plug & Play module is installed close to the ES 2 controller and the antenna position to suit. The CANlink communicates independently with the ES 2 controller and reads the operational data. It simultaneously determines the position of the high pressure pump unit.

All data is transmitted to a server in the World Wide Web. A user contract is made with the server operator to gain right of access.

The SIM cards are ordered when the contract with the server operator is concluded. Alternatively you can use your own SIM cards and contracts.

The ingress protection is IP65 (waterproof).

Functions at the PC

- Location of a pump unit
- Locations of multiple pump units
- Geofencing
- Route planning
- Data archiving
- Further evaluation of the data in the PC is possible
- Utilisation status
- Unit condition: No data, Unit not running, Unit operating, Fault
- Apply diagnostic software for the ES2 (Hammelmann service technician)