iHost

Monitor your entire grid around the clock

iHost solution

Horstmann products are in step with the times:

As grids become increasingly complex and heterogeneous, greater demands are placed on the availability of electricity networks. The increasing use of renewable energy sources and the desire for decentralisation play important roles in this development.

The Horstmann solution:

Information based network monitoring – the iHost system reduces power outage times thanks to quicker availability of information.
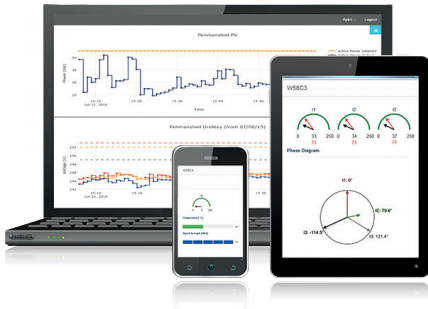
The iHost system collects data from devices such as from the short-circuit and earth fault indicators in the field (e.g. of the Compass series – see page 44), evaluates the data in a data concentrator and shares it with the control room systems and/or mobile terminals. Fault information and exceeded limits can also be send by e-mail or SMS.

Advantages at a glance:

- Current information about network performance
- Continuous network supervision prevents power outages
- Alerts in the case of faults or irregularities
- Analysis tools for increasing network visibility

Product features:

- Data concentrator for short-circuit and earth fault indicators
  - Bundles and processes all data received from remote field devices
  - Provides data access at any time in various ways and devices
- Central management of all field devices – with one click
  - Grid monitoring: system overview, data analysis, health checks
  - Configuration and firmware updates from SCADA
- Data on demand
  - Customised visualisation of data and alarms
  - Individual notifications, generated automatically
- Embedded database
  - Grid data available from day one of installation
  - Flexible data provision for asset management, planning, engineers and further user

iHost

Remote monitoring software for SCADA

iHost Cloud

iHost Compact

iHost Cloud

For smaller scale projects or pilot schemes iHost Cloud is the best choice. Quick and easy implementation works without software installation. Handling is very user-friendly – all you need is a web-enabled device, your username and password. Customised notifications in case of a fault or alarms are possible via SMS and e-mail.

iHost Compact

If you want to see the data in your SCADA, iHost Compact is the right choice. With this solution iHost becomes part of your SCADA infrastructure. Installed on a physical or a virtual server iHost is a gateway that processes all data and forwards them directly to your SCADA. With iHost Compact you manage all remote devices installed in the power network.

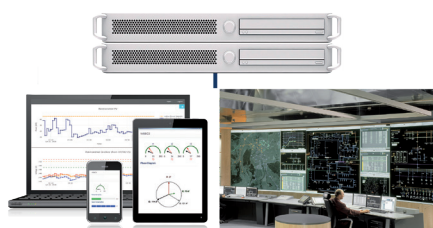| Feature	iHost Cloud	iHost Compact		
		Software	Software / hardware	Software/hardware/101
Hardware / Server arrangement	• High availability cluster • Software as a service	Single installation of the ihost software on a customer supplied, pre-installed and virtual server	Single server, Horstmann supplied	Single server, Horstmann supplied with serial interface
Operating system (OS)	Cloud service / data centre	Microsoft Windows Server OS	Microsoft Windows Server OS	Microsoft Windows Server OS
Visualisation	Web browser	SCADA		
SIM cards for smart FCI / RTU	Available on request	Customer supplied SIM with private APN		
iHost licence type	Software included	One-time license fees		
RTU count	1 – 1,000	50 / 250 / 500		
Limits of users / user roles	50 / 3	2 / 2		
Maps	Yes	No		
Notifications	Yes (e-mail / SMS)	No		
Historian	Yes	No		
Data access API	No	No		
SCADA protocols	n/a	IEC60870-5-101[1] IEC60870-5-104 DNP3 (serial)[1] DNP3 (IP)	IEC60870-5-104 DNP3 (IP)	IEC60870-5-101 IEC60870-5-104 DNP3 (serial) DNP3 (IP)
Simultaneous SCADA channels	n/a	2		

1) Customers server hardware must contain serial interface.

iHost Cloud		
1 licence		
Cloud per RTU / year	Order no.	79-1010-000
1 SIM card		
Cloud – 1 SIM-S*	Order no.	79-1040-000
Cloud – 1 SIM-M**	Order no.	79-1041-000
iHost Compact Software		
1 licence		
Compact 50 (SW)	Order no.	79-1110-000
Compact 250 (SW)	Order no.	79-1120-000
Compact 500 (SW)	Order no.	79-1130-000
1 software installation package (remote VPN access)	Order no.	79-1160-000
1 technical support for 12 months	Order no.	79-1150-000
iHost Compact Software / hardware		
1 licence		
Compact 50 (SW/HW)	Order no.	79-1110-100
Compact 250 (SW/HW)	Order no.	79-1120-100
Compact 500 (SW/HW)	Order no.	79-1130-100
1 software installation package (remote VPN access)	Order no.	79-1160-000
1 technical support for 12 months	Order no.	79-1150-000
iHost Compact Software / hardware / 101		
1 licence		
Compact 50 (SW/HW/101)	Order no.	79-1110-101
Compact 250 (SW/HW/101)	Order no.	79-1120-101
Compact 500 (SW/HW/101)	Order no.	79-1130-101
1 software installation package (remote VPN access)	Order no.	79-1160-000
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Accessories
Smart Navigator 2.0
Reporter 3.0
Reporter 4.0
ComPass AX12
ComPass BX12
Radio Reporter 2.0

*SIM-S: 2G, 3G; 10 MB data volume / month / SIM card
**SIM-M: 2G, 3G, 4G; 20 MB data volume / month / SIM card

iHost

Remote monitoring software for SCADA

iHost Solo

iHost Pro

With iHost Solo and iHost Pro all measured values as well as fault information are transferred directly to your SCADA and are available on mobile devices at the same time. All data is stored in iHost. Installed in your premises these solutions provide you multiple options regarding the use, analysis and visualisation of data.

iHost Solo

iHost Solo is designed for medium sized distribution networks whereas iHost Pro can handle the variety of remote devices, even of large distribution utilities.

iHost Pro

Complete with high availability resilience the system supports all departments of your company. The system can be tailored for user groups depending on their requirements.

Feature	iHost Solo			iHost Pro
	Software	Software / hardware	Software/hardware/101	
Hardware / Server arrangement	Single installation of the ihost software on a customer supplied, pre-installed and virtual server	Single server, Horstmann supplied	Single server, Horstmann supplied with serial interface	Single installation of the ihost software on a customer supplied, pre-installed and virtual server
Operating system (OS)	Microsoft Windows Server OS	Microsoft Windows Server OS	Microsoft Windows Server OS	Microsoft Windows Server OS
Visualisation	Web browser and SCADA			
SIM cards for smart FCI / RTU	Customer supplied SIM with private APN			
iHost licence type	One-time license fees			Annual license fees
RTU count	100 / 500 / 1,000			2,000 / 3,500 / 5,000
Limits of users / user roles	50 / 10			Unlimited / 50
Maps	Yes (option)			
Notifications	Yes (e-mail / SMS)			
Historian	Yes			
Data access API	Yes			
SCADA protocols	IEC60870-5-101[1] IEC60870-5-104 DNP3 (serial)[1] DNP3 (IP)	IEC60870-5-104 DNP3 (IP)	IEC60870-5-101 IEC60870-5-104 DNP3 (serial) DNP3 (IP)	IEC60870-5-101[1] IEC60870-5-104 DNP3 (serial)[1] DNP3 (IP)
Simultaneous SCADA channels	2			10

1) Customers server hardware must contain serial interface.

iHost Solo Software		
1 licence		
Solo 100 (SW)	Order no.	79-1210-000
Solo 500 (SW)	Order no.	79-1220-000
Solo 1000 (SW)	Order no.	79-1230-000
1 software installation package (remote VPN access)	Order no.	79-1260-000
1 technical support for 12 months	Order no.	79-1250-000
iHost Solo Software / hardware		
1 licence		
Solo 100 (SW/HW)	Order no.	79-1210-100
Solo 500 (SW/HW)	Order no.	79-1220-100
Solo 1000 (SW/HW)	Order no.	79-1230-100
1 software installation package (remote VPN access)	Order no.	79-1260-000
1 technical support for 12 months	Order no.	79-1250-000
iHost Solo Software / hardware / 101		
1 licence		
Solo 100 (SW/HW/101)	Order no.	79-1210-101
Solo 500 (SW/HW/101)	Order no.	79-1220-101
Solo 1000 (SW/HW/101)	Order no.	79-1230-101
1 software installation package (remote VPN access)	Order no.	79-1260-000
1 technical support for 12 months	Order no.	79-1250-000
iHost Pro Software		
1 licence		
Pro 2000	Order no.	79-1310-000
Pro 3500	Order no.	79-1320-000
Pro 5000	Order no.	79-1330-000
1 software installation package (remote VPN access)	Order no.	79-1360-000
1 technical support for 12 months	Order no.	79-1350-000

Accessories
Smart Navigator 2.0
Reporter 3.0
Reporter 4.0
ComPass AX12
ComPass BX12
Radio Reporter 2.0

Reporter 3.0

Remote monitoring to iHost

Reporter 3.0

Product features

- Detection and forwarding of digital states as generated e.g. by short-circuit or earth fault indicators, door contacts etc.
- Bidirectional data transfer to iHost
- Internal battery supply / no auxiliary supply necessary

The Reporter 3.0 is used for the remote signalling of short-circuits, earth faults and additional status reports (door contact, temperature sensor etc.) from a medium-voltage network that are reported by short-circuit and earth fault indicators. The received reports are transferred to iHost through a bidirectional data connection. The Reporter 3.0 is housed in robust, weatherproof housing for wall mounting and can be configured using Windows-based PC software and iHost.

Reported short-circuits and earth faults are securely sent to SCADA via the iHost system and can be retrieved by any web-enabled device at any time. Notifications can also be received by e-mail and / or SMS.

Fault indicator with relay contacts

e. g. door contact

Temperature sensor

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Technical data	Reporter 3.0
Special features	▪ Routine call ▪ Automatic date and time synchronisation ▪ Transmission of signal field strength ▪ Temperature sensor ▪ Fault and status notification via SMS and / or e-mail
Inputs	▪ 16 digital inputs for potential-free relay contacts ▪ 2 analogue inputs (4 – 20 mA)
Communication	Bidirectional data connection to iHost
Indication (inside)	Control LEDs for data reception / connection
Power supply	Replaceable long-life lithium cell 7 – 10 years, min. 1,000 calls
Housing	Glass fibre reinforced polycarbonate, IP66
Installation	Wall mounting
Temperature range	−30 to +70 °C

Dimension drawing in catalogue on page 159, M10

Equipment set		Accessories
1 Reporter 3.0	Order no. 28-7330-022	Fault indicators with relay contacts
1 iHost solution		
iHost Cloud		
iHost Compact		
iHost Solo		
iHost Pro		

Reporter 4.0
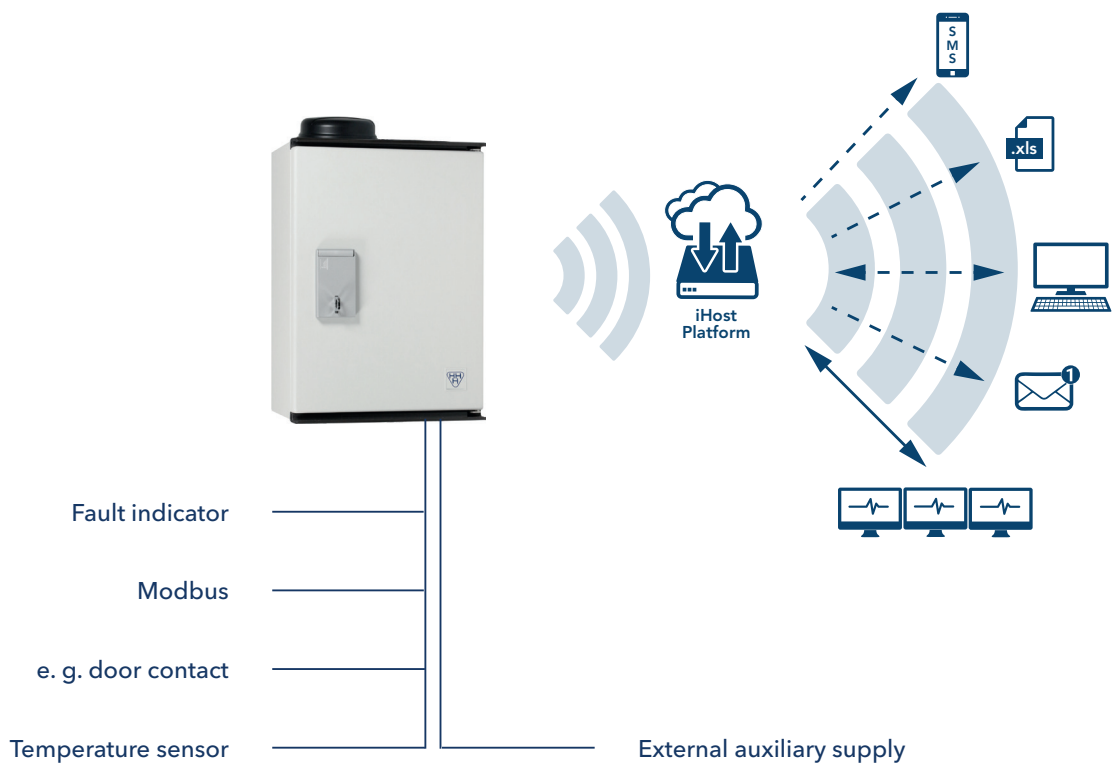
Remote monitoring to iHost

Reporter 4.0

Product features

- Detection and forwarding of digital states as generated e.g. by short-circuit or earth fault indicators, door contacts etc.
- Transfer via bidirectional data connection to iHost
- Auxiliary supply necessary

The Reporter 4.0 is used for the remote signalling of short-circuits, earth faults and additional status reports from a medium-voltage network. The information is transferred by ComPass B or ComPass B 2.0 in particular. Voltage, current, load flow direction, power factor, power, energy and frequency are also measured and monitored. The received reports are transferred to iHost through a bidirectional data connection. The Reporter 4.0 is housed in robust, weatherproof housing for wall mounting and can be configured using Windows-based PC software and iHost.

Reported short-circuits and earth faults are securely sent to SCADA via the iHost system and can be retrieved by any web-enabled device at any time. Notifications can also be received by e-mail and / or SMS.

Fault indicator

Modbus

e. g. door contact

Temperature sensor

iHost Platform

External auxiliary supply

Technical data	Reporter 4.0
Special features	• Routine call • Automatic date and time synchronisation • Transmission of signal field strength • Temperature sensor • Fault and status notification via SMS and / or e-mail
Inputs	• 16 digital inputs (hardware) • 8 analogue inputs (4 – 20 mA) (hardware) • 63 Modbus (digital) – 47 if hardware inputs are used • 68 Modbus (analogue) – 60 if hardware inputs are used
Interfaces	Modbus
Communication	Bidirectional data connection to iHost
Indication	Control LEDs for data reception / connection / fault indicators
Power supply	
Internal power supply	Back-up battery, max. 24 h
External auxiliary supply	100 – 240 V AC (50 – 60 Hz)
Housing	Glass fibre reinforced polyester, IP66
Installation	Wall mounting
Temperature range	−20 to +65 °C

Dimension drawing in catalogue on page 159, M11

Equipment set			Accessories	
1 remote monitoring box			ComPass B	
Reporter 4.0 for ComPass B	Order no.	28-7502-053	ComPass B 2.0 / Bs 2.0	
Reporter 4.0 for ComPass B 2.0 / Bs 2.0	Order no.	28-7502-055[1]		
1 iHost solution				
iHost Cloud				
iHost Compact				
iHost Solo				
iHost Pro				

1) Other options on request.

Radio Reporter 2.0

Remote monitoring of Navigator LM Radio to iHost

Radio Reporter 2.0

Product features

- Detection and transmission of signals as received from overhead FCIs type Navigator LM Radio
- Transfer via bidirectional data connection to iHost
- Internal battery supply / no auxiliary supply necessary

The Radio Reporter 2.0 is always used in combination with Navigators type LM Radio. Once a short-circuit has been detected, the Navigator starts flashing and transmits a radio signal to the Radio Reporter 2.0.

Due to the internal battery supply as well as the wide availability of the mobile network FCIs can be monitored in the whole distribution network.

The Radio Reporter 2.0 has a robust, weatherproof housing for pole-mounting. Quick and easy installation: install the Radio Reporter 2.0 to a pole, mount the Navigator LM Radio on the conductor and it's done.

Four different Navigator code configurations – A, B, C and D – permit either a group or phase-selective message and are provided onto four dedicated outputs. Moreover, the battery status of all Navigator LM Radio as well as the battery status of the Radio Reporter 2.0 are monitored. The Radio Reporter 2.0 can be configured using Windows-based PC software and iHost.

Reported short-circuits and earth faults are securely sent to SCADA via the iHost system and can be retrieved by any web-enabled device at any time. Notifications can also be received by e-mail and / or SMS.

Navigator LM Radio

Technical data	Radio Reporter 2.0
Special features	▪ Routine call ▪ Automatic date and time synchronisation ▪ Transmission of signal field strength ▪ Temperature sensor ▪ Fault and status notification via SMS and / or e-mail
Communication	▪ Coded fault information from overhead faulted circuit indicator Navigator LM Radio ▪ Bidirectional data connection to iHost
Indication	Control LEDs for data reception / connection / fault indicators (jumper to activate the internal indication during commissioning)
Power supply	Replaceable long-life lithium cell 7 – 10 years, min. 1,000 calls
Housing	Glass fibre reinforced polycarbonate, IP66
Installation	Pole mounting
Temperature range	−30 to +70 °C

Dimension drawing in catalogue on page 159, M14

Equipment set		
1 Radio Reporter 2.0	Order no.	28-7101-022
3 – 12 Navigator LM Radio		
1 iHost solution		
iHost Cloud		
iHost Compact		
iHost Solo		
iHost Pro		