Dr. Neuhaus

Solutions for Automation and Telecontrol

M2M communication makes it possible to reduce costs and improve efficiency under many different circumstances

Regardless of whether it's a Smart Grid, pump control or a weather station: there's data everywhere that has to be transmitted quickly and reliably. This data forms the basis on which processes can be optimally controlled and allows the full exploitation of existing savings potential.

TAINY HMOD-L1-IO

UMTS/HSDPA wireless router incl. firewall

The TAINY HMOD-L1-IO is a GPRS/EDGE/UMTS/HSDPA wireless router for access to the internet or a private network. The integrated firewall protects the application securely against access by unauthorized persons – the ideal combination of security and flexibility.

TAINY HMOD-V2-IO

UMTS/HSDPA wireless router, VPN tunnel and firewall

The TAINY HMOD-V2-IO combines a GPRS/EDGE/UMTS/HSDPA wireless router, VPN (Virtual Private Network) encryption and a firewall in a single device. Highly sensitive data can be transmitted reliably via the wireless GSM network. The integrated firewall provides additional protection for the application against access by unauthorized persons – the ideal combination of security and flexibility.

TAINY EMOD-L1-IO

GPRS/EDGE wireless router incl. firewall

The TAINY EMOD-L1-IO is a GPRS/EDGE wireless router for access to the internet or to a private network. The integrated firewall protects the application securely against access by unauthorized persons – the ideal combination of security and flexibility.

TAINY-EMOD-V2-IO

GPRS/EDGE wireless router, VPN tunnel and firewall

The TAINY EMOD-V2-IO combines a GPRS/EDGE wireless router, VPN (Virtual Private Network) encryption and a firewall in a single device. Highly sensitive data can be transmitted reliably via the wireless GSM network. The integrated firewall provides additional protection for the application against access by unauthorized persons – the ideal combination of security and flexibility.

Company with 30 years of experience

M2M Communications Made in Germany

Dr. Neuhaus stands for innovation in industrial communications and is a pioneer in the field of wireless M2M data communication – from the individual product right on up to complete cross-system solutions. Machine-to-machine communication (M2M) is becoming the key to an efficient, reliable integration of a wide variety of different industrial and commercial processes to an ever increasing extent. With the help of modern communications technologies, information can be exchanged between all types of such different end devices and applications as machines, automatic units, vehicles or computers. As a result, companies may experience a remarkable increase in their productivity and efficiency.

Network downtimes were significantly reduced

Smart Grid like it should be: Transformer stations learn to talk

The demands made on the operation and control of electricity networks have increased steadily over the past years. This is due to the stronger emergence of decentralized energy generation as well as to the changes made in legislation, e.g. incentive regulations.

To reach the goal – the reduction of network downtime – what is needed is a lot of real-time information from the network and the opportunity to be able to react to it quickly.

When local network stations are equipped with a TAINY-EMOD/HMOD wireless router, the control center can shut down the problem area in the event of an interruption and switch over to the network sections that are not affected. The customer is back on the grid quickly and the service technicians can go straight to the problem area to fix it.

Advantages at a glance:

Modern M2M communication makes it possible:

- to optimize business processes
- to increase productivity and efficiency
- to reduce downtimes
- to perform real-time monitoring
- to deploy technical services more efficiently

Amortization after just 3 years

Central pump control in the water supply and distribution business increases operating safety

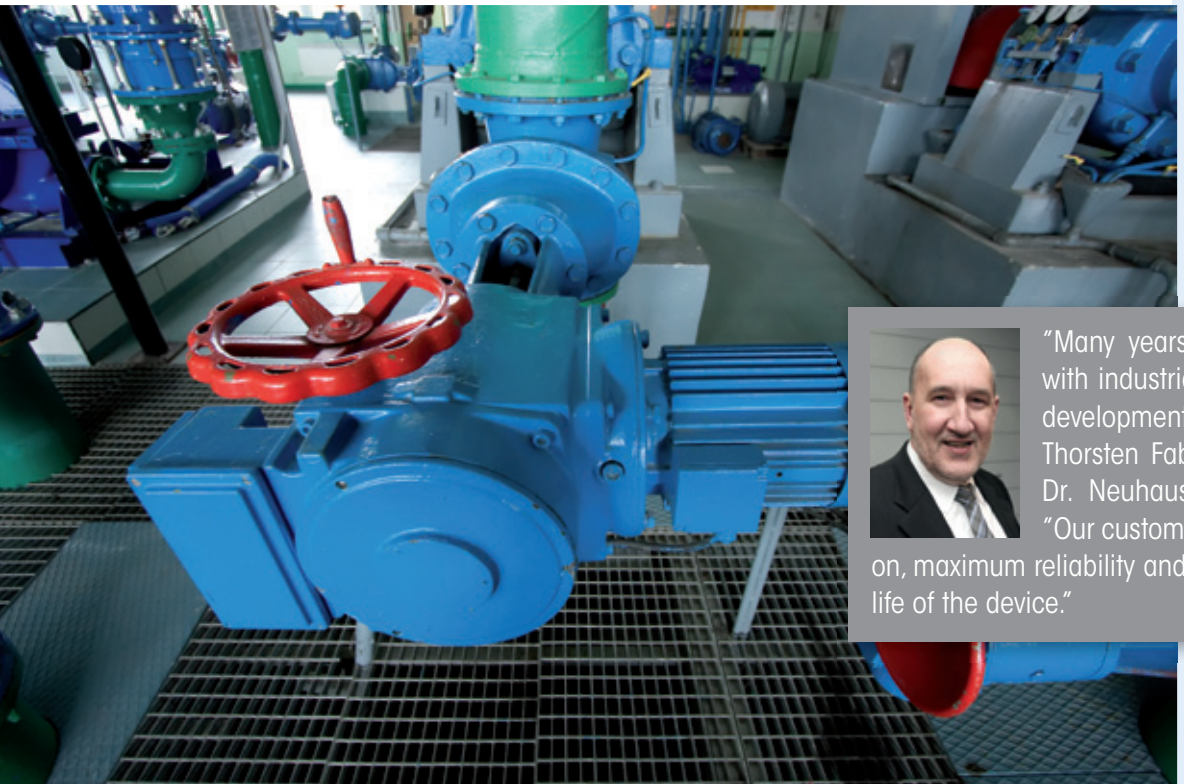
A water distribution company faced the challenge of integrating its outside sub-stations into an automatic monitoring system.

Up until then, the outside locations were not or only insufficiently integrated into the central process control and sometimes even had to be visited on a regular basis (unreliable and costly).

The company began to look for a system that would be able to record any malfunctions and then transmit this information securely and reliably, that would provide the higher system with access to all the data collected locally and that would also make it possible to intervene in the process by remote. The plan was to use the existing infrastructure as far as possible and the system also had to allow for flexible upgrading.

This project was realized by the installation of a PLC – Programmable Logic Controller – in combination with the TAINY GMOD-S1 at the outside location. Thanks to inexpensive M2M data price rates, the process data is now transmitted wirelessly in real-time between the sub-station and the control center.

This remote control solution was able to satisfy a number of different requirements right away. Regular monitoring visits to the sub-stations are now no longer necessary and decisions can now be made much more accurately because a more exact, up-to-date database is available.



TAINY GMOD-T1

GSM/GPRS terminal adapter

The TAINY GMOD-T1 is a plug-and-play modem for wireless data transmission via GSM or GPRS networks in an industrial environment. The flexible terminal adapter supports communication via data, text messaging and fax.

TAINY GMOD-S1/S2

GPRS dial-up and leased line controller

The TAINY GMOD-S1/S2 replaces a conventional AT-controlled dial-up or leased line connection with IP technology. As a result, applications can communicate inexpensively either bidirectionally via GPRS with a control center or with one another.

TAINY LMOD-S1

LAN dial-up and leased line controller

The TAINY LMOD-S1 replaces a conventional dial-up or leased line connection with IP technology. The TAINY LMOD-S1 is implemented directly in the already existing technical infrastructure via the serial interface.

TAINY Switching-Center

Standardized infrastructure for M2M applications – an independent, bidirectional provider

The TAINY SwitchingCenter (TSC) provides the technological basis for cost-efficient, innovative M2M applications in a wide variety of different industries. Applications profit from the enormous advantages of modern internet technology, such as cost efficiency, reliability, flexibility and investment security in the technological infrastructure.

"Many years of Dr. Neuhaus experience with industrial modems is invested in the development of the TAINY products," says Thorsten Faber, Key Account Manager at Dr. Neuhaus Telekommunikation GmbH. "Our customers profit from simple operation, maximum reliability and reduced overall costs for the life of the device."

Dr. Neuhaus

Dr. Neuhaus Telekommunikation GmbH – a company with 30 years of experience

Dr. Neuhaus Telekommunikation focuses primarily on the development and production of GSM, GPRS, LAN and PLC-supported communications solutions for wireless and wired data transmission. These innovative hardware and software products for portable as well as stationary data communications. The universal solutions are used in such professional applications as Smart Metering, in automated remote meter reading and in industrial automation.

Quality Made in Germany

The close connections between sales, development and production make it possible to efficiently implement all requirements to the benefit of the customer. The company employs 100 people; more than 40 % are qualified engineers.

Product Matrix	TAINY HMOD-L1-IO	TAINY HMOD-V2-IO	TAINY EMOD-L1-IO	TAINY EMOD-V2-IO	TAINY GMOD-T1	TAINY GMOD-S1/S2	TAINY LMOD-S1	TAINY Switching-Center
INTERFACES								
RS232					■	■■	■	
Ethernet	■	■	■	■				IPT
VOLTAGE								
12-30 VDC	■	■	■	■	■	■	■	
12-60 VDC	■	■	■	■				
FUNCTIONALITY								
VPN		■		■				
Firewall	■	■	■	■				
TSC protocol						■	■	■
Software								■
RADIO								
GSM	■	■	■	■	■	■		
GPRS	■	■	■	■	■	■		
EDGE	■	■	■	■				
HSDPA	■	■						
QuadBand	■	■	■	■	■	■		
LAN							■	
IP network							■	■
ENVIRONMENTAL CONDITIONS								
- 20 °C to + 60 °C	■	■	■	■	■	■	■	
- 20 °C to + 65 °C					■	■	■	
- 20 °C to + 70 °C							■	
MECHANICS								
Top-hat-rail mounting	■	■	■	■	■	■	■	
114,5 x 22,5 x 99 mm					■	■	■	
114,5 x 45 x 99 mm	■	■	■	■				
IP20	■	■	■	■	■	■	■	
IP40					■	■	■	
ORDER NUMBER	318309	318316	317319	317302	315902	314417	316503	317708

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