

### Benefits:

- Flexible high-speed internet access without wired installation
- High-security thanks to IPsec-encrypted Dynamic Multipoint VPN connections with extended firewall functions
- Downlink up to 14.4 Mbps, Uplink up to 5.76 Mbps
- Redundancy of network providers thanks to two SIM card slots
- Convenient configuration via web-interface
- Rights management for role-based access control with TACACS+ support
- Standardized integration into a network management system using SNMPv3
- Signaling of radio status, signal strength and connections via LEDs
- Flexible reaction to operational events (e.g. alarms, input-signals)

### Key Features:

- VPN router for fail-safe data transfer via public radio networks
- VPN supports certificates and SCEP
- Five-Band UMTS/HSPA, Quad-Band GSM/GPRS/EDGE
- 1 Ethernet port to application, 1 Ethernet port to WAN
- Intelligent connection monitoring
- Dynamic Multipoint VPN, GRE, NHRP, IPsec, Firewall
- Integrated DHCP-server, DNS cache, NTP and SNMPv3
- Top-Hat Rail mounting
- Large input voltage range (12 – 60 V<sub>DC</sub>)



The TAINY iQ-3GDSE2 from Dr. Neuhaus Telekommunikation combines HSPA (3G) mobile radio modem, a VPN (Virtual Private Network) router and a firewall in a single device. It offers secure transfers of highly sensitive data by encrypted end-to-end connections.

The external communication can be carried out either by wireless mobile radio connection (HSPA) or by wired WAN connection (LAN). These interfaces work redundant. It's easily possible to realize a failsafe WAN connection thanks to configurable reactions on connection losses (e.g. change from wired WAN to mobile radio).

The integrated firewall protects the applications against unauthorized access – resulting in an optimal combination of flexibility and security. Responsible for stability and high availability is the intelligent communication management. This provides an uncomplicated way of incorporating remote stations into your own network.

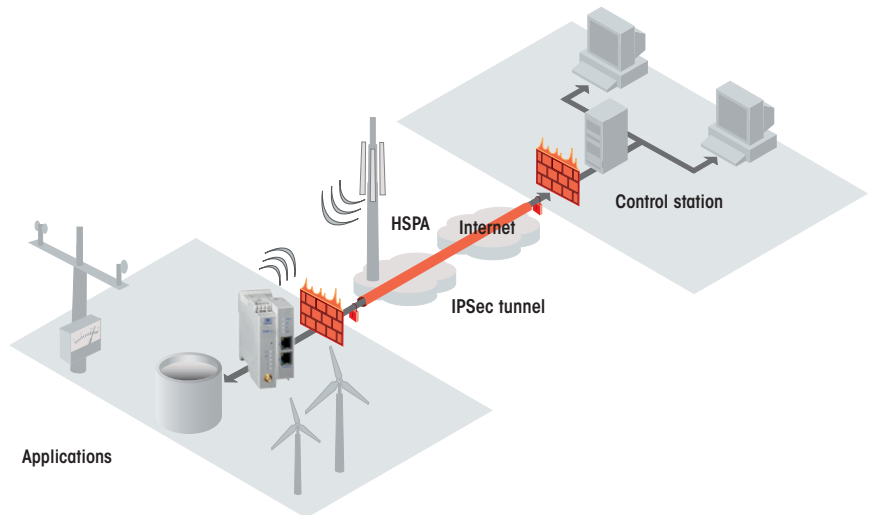
Thanks to Dynamic Multipoint VPN secure data exchange between the devices without the need to redirect it through the control center is possible. The VPN connections can be used redundantly and can be managed over a PKI due to certificate- and SCEP-support.



### System components

- Device: TAINY iQ
- Antenna
- Power Supply
- SIM-card with data option
- VPN compliant remote station

### Topology



### Technical data

#### INTERFACE

<b>Application Interface</b>	1x 10/100 base-T (RJ45-socket); Ethernet IEEE802; 10/100 Mbit/s; Auto Cross Over
<b>WAN Interface</b>	1x 10/100 base-T (RJ45-socket); Ethernet IEEE802; 10/100 Mbit/s; Auto Cross Over (optional configurable as application interface)
<b>Signal input/output</b>	Input: switching voltage 5..30 V <sub>DC</sub> potential-free; Output: U <sub>max</sub> 30V <sub>DC</sub> ; I <sub>max</sub> 20 mA, potential-free
<b>Power Supply</b>	U <sub>nominal</sub> = 12 – 42 V <sub>DC</sub> (up to 60 V <sub>DC</sub> if finger-protected by cabinet or cover); I <sub>rms</sub> = 550 – 165 mA, I <sub>max</sub> = 630 mA

#### FUNCTIONALITY

<b>VPN</b>	Dynamic Multipoint VPN incl. certificate support; protocols: GRE, NHRP, SCEP, IPsec (3-DES; AES with 128; 192; 256 Bit), MD5, SHA1; Pre-Shared Key (PSK); NAT-T; Dead Peer Detection (DPD); IKE with main and aggressive mode
<b>Firewall</b>	Stateful Inspection Firewall, Anti-Spoofing, NAT, Port forwarding
<b>Configuration</b>	Web-based Administration, SNMPv3 interface, multiple WAN configurations, multiple storable profiles
<b>User management</b>	user authentication by username/password or TACACS+, configurable user rights
<b>Miscellaneous</b>	DNS cache, DHCP server, RIPv2, VRRP, DynDNS, logbook, snapshot, firmware upgrade (local, remote), configurable reactions to operational events

#### RADIO

<b>Connection</b>	HSDPA Cat. 10 / HSUPA Cat. 6 / DL <sub>max</sub> : 14.4 Mbps, UL <sub>max</sub> : 5.76Mbps EDGE class 12 / DL <sub>max</sub> : 237 kbps, UL <sub>max</sub> : 237 kbps; GPRS class 12 / DL <sub>max</sub> : 85.6 kbps, UL <sub>max</sub> : 85.6 kbps
<b>Transmitting Power</b>	Quad-Band: GSM 850/900/1800/1900 MHz (2 W); DCS 1800 MHz: (1 W), PCS 1900 MHz (1 W) Five-Band UMTS/HSDPA (WCDMA/FDD) 800/850/900/1900/2100 MHz
<b>Antenna Port</b>	Impedance nominal : 50 ohm; 1x SMA socket
<b>SIM-Card Slots</b>	2 SIM-Card Slots for Mini-SIM (UICC; Format ID-000); 1.8 V or 3 V

#### APPROVALS

<b>Environmental Conditions</b>	operational temperature: -25 °C to +70 °C *); storage temperature: -40 °C to +85 °C; humidity: 0-95 %, not condensing *) automatic shutdown of the radio module in case of reaching a critical temperature
<b>Approval</b>	R&TTE directive (1999/5/EG), ROHS directive EN 50581 (2011/65/EU), Class III, ETSI EN 301 908-01, ETSI EN 301 908-02, EN 301 908-13, ETSI EN 301 511, EN 301 489-1, ETSI EN 301 489-7, ETSI EN 301 489-24, EN 55022, EN 61000-4-2, -4-3, -4-4, -4-5, -4-6, -4-8, -4-10, -4-13, -4-18, -4-11, -4-29, EN 61000-6-2, EN 61000-6-3, EN 60950-1, EN 62479

#### MECHANIC

<b>Mechanics</b>	top hat rail mounting; enclosure: plastic; protection class: IP30; dimensions: approx. 114.5 x 45 x 99 mm (D x W x H); weight: approx. 280 g
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#### MISCELLANEOUS

<b>Accessories</b>	power supply; various antennas; cross-over ethernet cable
<b>Scope of Delivery</b>	device
<b>Order Number</b>	TAINY iQ-3GDSE2, part no.: 320104

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