



MoRoS-LAN

VPN router with integrated LAN interface to connect a DSL modem (PPPoE)

The VPN router MoRoS-LAN is an industry-standard VPN router for installation on a top-hat rail. Together with a DSL modem of the respective provider, it can be used to connect a network or a controller to the internet for remote maintenance purposes. Without additional modem, it connects a controller network to a company network with the controller network either be a PROFINET network or an Industrial-Ethernet network.

Perfect fields of application

The Monitoring-App extends your VPN router to an efficient fault indicating and monitoring system for S7- and Logo-PLCs. You get E-Mail messages about events inside your PLC. The VPN router MoRoS-LAN supports you with the remote maintenance of a S7 PLC via TCP/IP or ACCON-NetLink-PRO. It can also be used for the connection of two Ethernet networks with firewall as access control.

Varied ranges of application

With the VPN router MoRoS-LAN it is easy to remotely maintain a S7 PLC over the internet. For a secure remote maintenance you only need the VPN router MoRoS-LAN, DSL and VPN.

Furthermore the VPN router MoRoS-LAN can also be used to connect a PROFINET network with the company network.

Convincing and multifaceted

The VPN router MoRoS-LAN connects a PROFINET network with the company network so that a PC visualization software in the company network can read data of a PLC connected to the PROFINET via this connection. Other devices in the company network are blocked by the firewall when accessing the PROFINET network.

Furthermore, due to the integrated firewall, you can parameterize very accurately which communication between company network and machine network is allowed.

Technical Highlights

- Modem, router and switch in one device
- 4+1-port switch with 10/100 Mbit/s
- IT security: VPN, stateful firewall
- Comprehensive functionality and interfaces incl. RS232 + I/Os
- Redundant communication paths
- Integrated programming environment Linux sandbox for custom applications
- Quick start for VPN service DELTA LOGIC Connectivity Service
- Monitoring App for monitoring Siemens LOGO!™, S7 and Modbus TCP devices available



With the MoRoS-LAN you can remotely access your ethernet devices in an easy and secure way.

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Technical Details

Router

Function	IPv4/IPv6 router, connection management, DHCP server and client, Full NAT (IP forwarding, port forwarding, netmapping), DNS relay, dynDNS support, PPoE for ADSL modem via LAN (ext), dial-in, dial-out, callback
Security	OpenVPN (client and server), IPsec (ESP normal/aggressive mode), GRE, PPTP, stateful firewall and MAC filters, RADIUS authentication, 10 users for dial-in, authentication via PAP/CHAP/MS-CHAP/MS-CHAP 2, dial filters for dial-out, linkloss detection, failed login detection, no backdoor
Redundancy	LAN ext. port for external DSL modem, RS232 interface for external phone modem, 2 dial-out targets, 2 OpenVPN servers
Connection stability	Connection monitoring on several levels, hardware watchdog

Ethernet-Switch, interfaces

Ports	4+1 x RJ45 (4 switch ports + 1 LAN/ext) 10/100 MBit/s for full and half duplex operation
Function	Automatic detection of patch cable/cross-over cable, automatic speed adjustment, port mirroring
Serial interface	Serial-Ethernet gateway (incoming and outgoing connections, Modbus TCP/RTU gateway, modem emulation, editable AT answer list, phone number conversion to IP addresses)
Inputs/Outputs	2 digital inputs (low active) for message dispatch, dial-out connection establishment (dial out, VPN serial), VPN tunnel, 2 potential-free outputs switchable via web interface, via SMS, time-controlled, connection display PPP/VPN

Operation

Configuration	Local and remote web interface (http, https), command line interface (CLI), Telnet, SSH, text and binary file (also for backup), quick start for DELTA LOGIC Connectivity Service Menu languages: German, English, French
Indications (LEDs)	Connection status, data/signal, device status/VPN, power, switch ports
Diagnosis	Comprehensive log files, support package, integrated help functions, Diagnosis tools: ping, tcpdump, traceroute, DNS lookup, AT commands
Customer-specific programming environment	User access to embedded Linux (sandbox), 150 MB permanent memory, socket access, example programs: e-mail and SMS client, serial logger, etc.



Monitoring app for monitoring Siemens LOGO!, S7 and Modbus TCP devices additionally usable. More information at:

www.deltalogic.de/produkt/e/fernwartung/monitoring-app

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Create VPN connection easily and securely. With the DELTA LOGIC Connectivity Service.

<https://connectivity.deltalogic.de>

Messages	Hardware watchdog, system messages via e-mail, SNMP traps, SNMP V1/V2c/V3
Events for messages (selection)	Establishing WAN or VPN connection, alarm or pulses on input 1, auto update, ethernet link up/down, configuration change, firewall violation, failed authentication
Additional features	NTP client and server, buffered real-time clock, optional monitoring packages
Updates	Update of firmware and configuration (local and remote), daily auto update via server (http, ftp)
Environmental conditions	
Power supply	10 ... 60 V DC (±0%)
Power consumption (during connection)	Ca. 2,5 W, max. 3 W
Operating temperature	-30...+70 °C -30...+85 °C under restricted conditions (refer to www.insys-icom.de/restricted)
Humidity	0...95% (non-condensing)
Mounting/protection class	DIN rail mounting/housing: IP40, terminals: IP20
Certifications	CE, FCC part 15 class A
Applied standards	Radiation: EN 55022 Class B, EN 61000-6-3 Interference resistance: EN 55024, EN 61000-6-2
Dimensions (W x H x D) in mm	70 x 75 x 110 (4 TE)
Monitoring App (monitoring function)	
Monitoring elements	Timer, internal flags
Logical combination of the elements	AND, OR, NOR, NAND, XOR
Actions	Message dispatch, http call, timer start, upload to Cumulocity cloud, Telekom "Cloud der Dinge": Central and easy visualisation of measurements, events and alarms
Messages	SMS, e-mail: Freely configurable text, also actual values from monitored elements