VIPA CONTROLS

Remote Access

All it takes to reduce maintenance costs & optimize uptime

YASKAWA

Teleservice - Talk2M

Talk2M is an internet service portal which is specially constructed for the increasing demand for safe broadband and mobile radio access to your systems and machines.

With a few mouse clicks a secure VPN connection can be established. Changes to the security settings of the IT network are not required, neither on the side of the system nor the user. This guarantees a trouble-free application with the complex infrastructure of IT networks.

Security and reliability

Security has the highest priority with Talk2M: all VPN protocols are OpenSSL and OpenVPN 2.1 based. In case of server failure we are able to move the VPN connections from one VPN server to the other within a very short time.

Access control

Every Talk2M account has an unlimited number of installations available. For you this means no limitation on the number of users and installations.

Scalability

The Talk2M architecture was in fact already developed with the ulterior motive of scalability. Start small and grow with your requirements.

Worldwide availability

We distributed our server worldwide to guarantee the shortest latency times between the IP packages.

SMS & E-Mail-Relay

This feature enables you to send text/e-mail messages without using a SIM card. This function was specially developed for installations and applications abroad that are not compatible with customary SIM card. So there is no need to constantly top up prepaid SIM cards nor to conclude a mobile phone contract abroad.

Free mobile web access

You have easy access to your installation data via web browser from your smartphone or tablet PC. You can provide your customers with mobile access to their machines and industrial facilities without additional costs. There is no need to install any software for this.

Teleservice modules from VIPA Controls offer access to your systems and machines all over the world as if you were sitting right next to them.

CONNECTION ESTABLISHMENT

① The installation automatically establishes an outbound internet connection to the Talk2M server.
② At the other end the user also establishes an outbound connection via PC or the eCatcher VPN software to the Talk2M server.
③ If both participants are registered and authenticated, a secure VPN connection is established between the two participants.

Cost saving by avoiding of unnecessary business trips.

For example, assistance during commissioning by programmers who are not on site, can generate enormous potential for savings. In this way you can optimize you installation without having to travel to the site. Even the use of one teleservice module can reduce the service costs by up to 90%. The use of an employee on site with travel costs plus expenses creates more expenditure than the one-time investment in a teleservice module. You will have already saved money in the next operation, instead of losing it.

Be prepared in time for maintenance and service or:

„Already know yesterday what could have happened tomorrow.“

Access to your controllers, your panels as well as other automation components or regular maintenance, Condition Monitoring or status monitoring – with the VIPA teleservice modules you are well prepared for each application.

The advantages of Talk2M at a glance

- Talk2M is the connection interface between you and your system.
- Talk2M uses only standard ports:
  Port 80 (web access)
  Port 1194 (UDP) or
  Port 443 (HTTPS)
- Talk2M works only with „outbound“ connections.
- Talk2M uses the OpenVPN protocoll.
- Talk2M is able to establish connections via a proxy.
- Complete access to serial, MPI/PROFI-BUS and network interfaces.
- Cost saving and benefits through the usages of existing medium of communications (e.g. ADSL/LAN…).

Remote Access

TM-C WIFI / WAN

TM-C WAN

TM-C 3G+ / WAN

Easy installation and handling:

Connect any Ethernet device without having to configure the gateway. The machinery doesn`t have to be stopped during the configuration of the VPN router.

Firewall friendly outgoing connection:

Outgoing internet connection via the factory LAN via port 443 (HTTPS) or UDP port 1194. The firewall can be installed easily and trouble free whereas there is only access to the machinery and not to the factory LAN.

Connection of older serial PLCs:

Support of larger PLCs – RS232/ RS485/422, MPI/Profibus with Ethernet – compatible with leading PLC producers (VIPA Controls, Rockwell Automation, Schneider Electric, Omron, Mitsubishi, Modbus, Siemens etc.).

Control for customer:

The VPN access can be controlled with an external key switch.

Integrated WLAN, cellular connection:

Thanks to WLAN and cellular modems, internet connections can even be established without participation of the factory / company LAN. They offer a cost free access, high bandwidth, easy deployment (no cabling), and simplification of the network security management.

Secure VPN connections:

Completely secure SSL based VPN tunnel. The information which is exchanged during the communication is enciphered (SSL - 2048 Bit key), so only authenticated users can connect with Talk2M.

	TM-C (WAN)	TM-C (WIFI / WAN)	TM-C (3G+ / WAN)
Remote maintenace via MPI/PROFIBUS	-	-	-
Remote maintenace via Routing/Plug'n Route	-	-	-
Ethernet/serial gateway	-	-	-
Variable read/write	-	-	-
Alarm management	-	-	-
Tailor-made web pages	-	-	-
M2Web	•	•	•
Basic Skripting	-	-	-
Talk2M capable	•	•	•
Integration in an existing VPN network	-	-	-
MPI/PROFIBUS/PPI (RS485)	-	-	-
LAN (RJ45) | machine network	4x	4x	4x
Fieldbus interface	USB	USB	USB
Input/output	2x DI, 1x DO	2x DI, 1x DO	2x DI, 1x DO
SD card reader	ja	ja	ja
WAN connectivity	LAN	LAN + WLAN 802.11 b/g/n	LAN + GSM/ GPRS/ EDGE/ HSPA+ Modem
WAN (RJ45) | external network	1x	1x	1x
Integrated modem	-	-	-
Suitable for	broadband connection	broadband connection	mobile broadband connection

Web based configuration

- All teleservice modules are configured via a web interface. You only have to open your browser for this.

Everything accessible!

- Connect each device that is equipped with an Ethernet interface. With the Plug‘n‘Route feature you don`t even have to register a gateway. Therefore upgrade your existing systems too.

Via MPI/PROFIBUS to the plant

- Thanks to the integrated MPI/PB interface you have direct access to your controllers and panels. Not many producers offer this feature to their customers.

Solid and reliable

- The robust construction, the powerful chip and the expanded temperature range make the teleservice modules a standard in all machines.

TM-H WAN/LAN
TM-H WAN/LAN/HSPA+

TM-C (WAN/LAN)	TM-H (WAN/LAN)	TM-H (WAN/LAN/ HSPA+)
•	•	•
•	•	•
•	•	•
-	•	•
-	•	•
-	•	•
•	•	•
-	•	•
•	•	•
•	•	•
1x	1x	1x
4x	4x	4x
-	-	-
-	1x DI, 1x DO	1x DI, 1x DO
-	-	-
WAN + LAN	WAN + LAN	WAN + LAN + HSPA+
1x	1x	1x
-	-	HSPA+
broadband connection	broadband connection	mobile broadband connection

Alarm management

- The Teleservice modules can read out data directly from the PLC via ISO TCP, MPI/PB, PPI and Modbus TCP and process it internally and use it as an alarm.
- As soon as a defined limit value is exceeded or undershot, an SMS or an email will be sent. The transmission of data via FTP is also possible.

Ethernet/serial gateway

- Gateway between ISO TCP and MPI/PB data. The device automatically changes the data.
- Data exchange between serial MPI/ PROFIBUS data and Ethernet based ISO TCP data.

Tag Polling

- The VIPA Teleservice modules can read and write data of the connected controller.
- This data will be read and written via MPI, PROFIBUS, PPI or ISO TCP.

Highlights TM-H

- Versatile top all-rounder, very well equipped
- All features integrated (alarm management, Tag Polling, Customized Web pages, etc.)
- Ideal for all teleservice functions
- VPN capable
- Ideal for broadband connections via LAN/ADSL und HSPA+

PLC remote maintenance

- Remote access to your components as if you were standing directly in the room next door.
- The connection to the teleservice module is established via PSTN, ISDN, mobile service or broadband communications.

Customized web pages

- Data that is stored in tags can be displayed on a specially created website.

M2Web

- Access to the web interface of the teleservice modules from VIPA Controls via each web browser (also on the smartphone, tablet PC, web panel, etc.).

Industrial Ethernet - unmanaged

Industrial switch EN5-R

Industrial switch EN8-R

VIPA Controls offers unmanaged Ethernet switches with high port density. These industrial switches have compact, space saving dimensions and are suitable for a variety of applications.

Highlights

- Cost-effective Ethernet switch in industrial quality
- Broadcast electric current protection
- Redundant power supply
- Firm hardware design for hazard areas (class 1/Div.2/ATEX)

Technical data

- Robust 5/8 port basic Ethernet switch for the industrial deployment
- 5/8x RJ45 10/100BaseTX full-/half duplex
- Supports IEEE 802.3 and IEEE 802.3u/x and automatic MDI/MDI-X recognition
- Redundant power supply for 12-45 VDC
- Solid hardware design for hazard areas (class 1/Div.2/ATEX)
- IP30 aluminium case for mounting on a DIN rail
- Operating temperature: -10°C up to 60 °C
- FCC, TUV, UL and CE approval

Technical application examples

- The industrial Ethernet switches EN5-R / EN-8R support the IEEE 802.3 and IEEE 802.3u/x with 10/100M full-/ half duplex and automatic MDI/MDI-X recognition.
- These switches were constructed for harsh industrial environments. These are for example hazard areas (class 1/Div.2/ATEX) in accordance with the standards FCC, TUV, UL and CE.
- They offer additional flexibility for industrial applications with redundant power supply, a operating temperature range of -10 up to 60 °C as a standard, and a broadcast electric current protection which can be activated via a DIP switch.

Industrial Ethernet - managed

Industrial switch PN5-RD

Industrial switch PN8-RD

Managed Ethernet switches support intelligent network management functions such as QoS, IGMP Snooping/GMRP, VLAN, Port Trunking, SNMP V1/V2c/V3, IEEE802.1X and https/SSL.

Highlights

- PROFINET RT, class B
- Call of PROFINET diagnosis / status information via device functionalities
- SPEED7 Studio fully integrated
- Management functions such as IGMP Snooping, IEEE 802.1Q VLAN, QoS, RMON, SNMP
- Port mirroring
- PROFINET I/O parameters, I/O cyclic data, DCP, DHCP
- Turbo Ring™ and Turbo Chain™ (Recovery time < 20 ms at 250 switches)
- Redundant power supply
- Solid hardware design for hazard areas (class 1/Div.2/ ATEX)
- Protection of service quality based on IEEE 802.1p and TOS/DiffServ improves the deterministic operation
- Operating temperature: 0°C up to 60 °C
- Rail-/telecommunication applications: EN 50121-4
- FCC, TUV, UL and CE approval

Technical data

- 8x RJ45 10/100BaseTX full-/half duplex, automatic MDI/ MDI-X recognition
- Support of PROFINET and Modbus/TCP protocols
- PROFINET v2 Conformance class B
- PROFINET diagnosis via GSDML integration
- Command lines (CLI) for fast configuration of important functions

Technical application examples

- PN5-RD / PN8-RD offer special features for diagnosis of PROFINET networks. Within the VIPA Controls engineering system SPEED7 Studio the switches can be integrated and used in the configured PROFINET network by Drag&Drop. In addition open-system integration by means of GSDML file is of course also possible.
- With their short boot times and the recovery technologies, Turbo Ring™ and Turbo Chain™, they allow a performance improvement in PROFINET networks.
- Additionally they support many usable management functions such as IGMP Snooping, IEEE 802.1Q VLAN, QoS, Port Mirroring, SNMP, bandwidth management and alarm message by email or relay output.

VIPA
CONTROLS AMERICA

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VIPA ControlsAmerica
980 Birmingham Road, Ste. #721
Alpharetta, GA30004, USA

Phone: +1 (855) one-VIPA
+1 (678) 880-6910
E-Mail: info@vipausa.com

www.vipausa.com

YASKAWA