

Introduction

The Regesta-Lite router family brings today's most advanced corporate IP network protocols to the world of smart grids. These routers have been specially designed to be able to provide connectivity solutions in remote and unattended locations where the characteristics of the site demand a high level of industrial-grade ruggedness.

It takes full advantage of Teldat's advanced internetworking software (CIT) to provide the latest in communications security with encryption, authentication management and access control. The combination of advanced networking protocols and management tools make it ideal for large-scale deployments.

Product Highlights

- ▶ Multiple WAN (2G/3G/LTE, Ethernet)
- ▶ SCADA (Modbus, IEC-101/102, gateway IEC-104)
- ▶ Multi-range power supply (100-240 VAC & 40-75 VDC)
- ▶ Extended temperature range (-10 to 60°C).
- ▶ Due to the electrical security and EMC regulations
- ▶ DMVPNs, VLANs and QoS for critical services
- ▶ Dual-SIM (Double module optional) for redundancy

Interfaces

Regesta-Lite

| | |
|-------------------------------------|---|
| 1 x 2G/3G/LTE | Yes |
| 2 x Fast-Ethernet 10/100 Mbps | Yes |
| Up to 3 x asynchronous serial ports | Yes (RS-232 and RS-485 according model) |
| Mechanical reset button | Yes (factory configuration upload) |
| 2 x Ethernet LEDs, 2 x 3G LEDs | Yes (According to model) |
| ON/OFF button | Yes |
| 2 x SMA antenna connectors | Yes |
| 2 x internal SIM trays | Yes |

Competitive Advantage

| | |
|--------------------------------------|---|
| Reliable communications and hardware | Multiple access technologies (1 LTE + Ethernet) employed with real-time backup mechanisms, SNMP trap notifications and alerts. |
| Rugged hardware design | Adaptable hardware design for unattended installations, with extended temperature range (-10 to 60° C) and electrical/electromagnetic immunity. |
| Multi-range power supply | A single device for networks with diverse power supplies. |
| Corporate networking software | The latest IP network technologies for smart grid communications bringing security, quality and ease of use to large-scale multi-service deployments. |

Scenarios

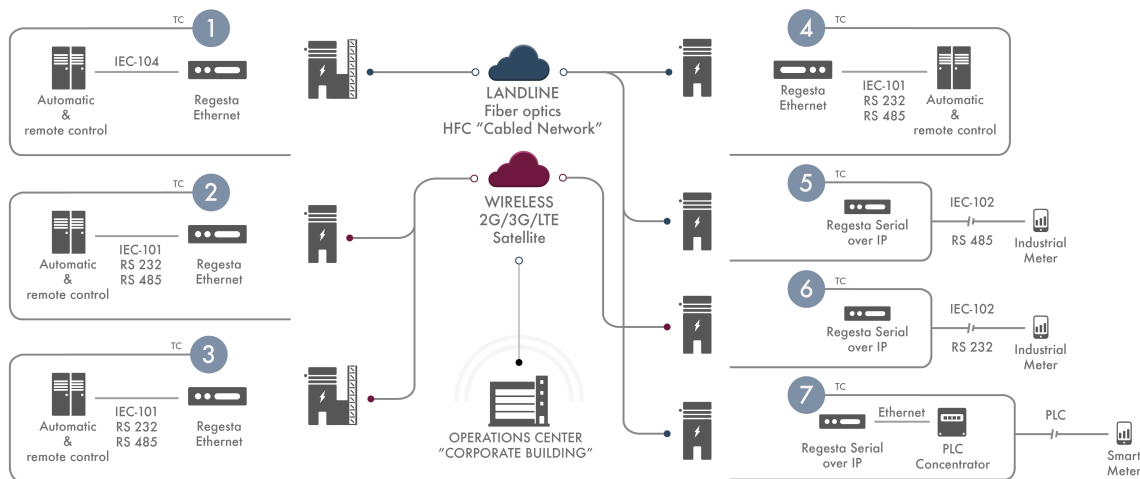


Figure: Multiple scenarios covered by REGESTA-Lite

Key Features

2 FE 10/100 VLAN, 802.1X duplex ports 2 10/100-Base-T, auto detect ports (full/half-duplex auto-negotiation) MDI / MDI-X crossover detection, Ethernet V2 / IEEE 802.3LLC (802.2), ARP, IEEE 802.1Q (VLAN), IEEE 802.1X

Multi-range power supply (100-240VAC and 40VDC-75VDC) 40V-75 VDC and 110V-220 VAC power supply, both ranges supported in a single model for easy deployment and maintenance. 11 W consumption.

2G/3G/4G (backup with dual-SIM and/or dual-module) Up to two 2G/3G/4G embedded interfaces with dual SIM tray for automatic backups. Advanced Teldat system for proactive monitoring and automatic recovery from WWAN incidents.

Certified for use in electrical environments Safety certificates for equipment in electrical environments: EMC, isolation, immunity, electrical, climatic and mechanical.

Extended temperature range (-10 to 60°C). The Regesta-Lite includes a housing design for optimal heat dissipation and wall mount and DIN rail mount options, guaranteeing operation between -10 and 60° C with up to 95% humidity.

Security: 802.1X, ACLs, firewall and DMVPNs (IPSec) The Regesta-Lite includes state-of-the-art security: ACLs, firewall, 802.1X, IPSec with hardware encryption, DMVPNs, etc. This allows for safe and scalable deployment in easy-to-manage smart grid networks.

Serial ports for SCADA protocols It is also able to incorporate serial interfaces (up to a total of 3 serial ports) with SCADA protocols, thus providing the versatility to connect to industrial meters, RTUs and other control devices.

Advanced services (routing, management, QoS) The Regesta-Lite includes state-of-the-art security: ACLs, firewall, 802.1X, IPSec with hardware encryption, DMVPNs, etc. This allows for safe and scalable deployment in easy-to-manage smart grid networks.

IEC-101 to IEC-104 Serial-IP and Gateway Encapsulation Data from the serial port can be transparently encapsulated with IP. The "IEC-101 to IEC-104 gateway" function also allows IEC-101 TRUs to be maintained and central management software to migrate to IEC-104.

Out-of-band management console port The console port facilitates troubleshooting and installation at remote points.

HARDWARE TECHNICAL FEATURES

Power Supply

Multi-range power supply (85-264 VAC and 40-75 VDC)

Power consumption (max.): 11 W

Both AC and DC power supply are supported on the same unit

Up to 3 Serial Interfaces (DB9 connector)

Asynchronous up to 115200 bps

RS-232 and RS-485 options

RTS/CTS and SCADA flow control (Modbus, IEC-101/102, IEC-104 gateway)

Dimensions and Weight

L x W x H: 186 x 203 x 47 mm (without protection)

Approximate weight: 600gr.

Format: DIN rail and wall mounting

Ethernet interfaces

2-port switch (RJ45 connector)

802.3i (10BaseT), 802.3u (100BaseT)

Support duplex, IEEE 802.3u link speed auto-negotiation, VLAN and 802.1X

WWAN interface

Built-in hardware module with EDGE/UMTS/HSPA+ or LTE technology

2 x external antennas with SMA connector

Dual-SIM trays (internal)

Environmental specifications

Temperature: -10 to 60 °C

Relative humidity: 5 to 95%

Atmospheric pressure: 700 to 1060 mbars

SOFTWARE TECHNICAL FEATURES

IP protocol

ARP, ARP Proxy, MTU discovery, NAT, ECMP, BFD

RIP, OSPF, BGP, policy-based static and dynamic routing

Virtual Router Forwarding (Multi-VRF)

Security

IPSec support in transport and tunnel mode (including DMVPNs)

Pre-shared authentication, RSA, Certificates, MDS, SHA-1

DES (56 bits), 3DES (168 bits), AES (128, 192 and 256 bits), IKEv1, IKEv2

IP services

Telnet, DHCP, DNS, FTP, SFTP and SSH server and client

NTP, LDAP, Syslog, SCP client. TFTP server

DHCP, dynDNS relay

Specific WWAN functions

Automatic hand-over (passive and active probe-based detection)

Advanced link monitoring (packet error, latency, jitter)

Dual SIM associated with the hand-over mechanism

Management (2)

Netflow, RMON V5 and V9, SNMPv1, v2c y v3, Syslog support

Manageable through SMS and self-provisioning with Colibri

NetManager

Wireshark-compatible remote traffic capture

IP protocol (2)

Multicast: IGMP (v1,v2, v3), PIM-SM, MSDP, MLD, MLDv2

IPSLA service probes (delay, package loss, jitter)

High availability: VRRP, TVRP (HSRP compatible)

Security (2)

Certificates: CSR, SCEP, X.509v3, PKIX, LDAP revocation

Static and dynamic access lists and session-based firewall

DoS and DDoS attack detection

Service quality

Classification, marking, bandwidth management and limiting/prioritizing

Up to 32 types and 16 queues per interface

Strict policies (PQ), low latency (LLQ), by weight/type (WFQ, CBWFQ)

Management

CLI configuration and storage in a plain text file

Assignment of user/group licenses

RADIUS and TACACS+ AAA support

ADDITIONAL TECHNICAL FEATURES

LEDs

Type RS232

Default speed 9600 bps, maximum speed 115200 bps

2 x status/speed LEDs per Ethernet port

Certificates (II)

Immunity (I): EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5

EN 61000-4-6, EN 61000-4-8, EN 61000-4-10, EN 61000-4-12, EN 61000-4-13

Immunity (II): EN 61000-4-18 Electrical: EN 61000-4-11 and EN 61000-4-29

Certificates (I)

2 x wireless status/coverage LEDs

1 x system LED (configurable)

Isolation (EN 60255-5) for electrical resistance and impulses

DB-9 connector with proprietary pinouts (including adapter)

Climatic: EN 60068-2-78, EN 60068-2-2, EN 60068-2-1, EN 60068-2-14

Mechanical: EN 60870-2-2, EN 60068-2-6 EN 60068-2-27

FLEXIBLE COMMUNICATIONS SOLUTIONS THAT GROW WITH YOU.

Advanced Smart Grid Router: Regesta-Lite

Industrial-grade router for remote smart communications



Teldat is a leading provider in Enterprise Communications equipment and Services for the top corporate to mid-sized and SME markets.

About TELDAT



ROUTERS | Wi-Fi | MANAGEMENT | TRANSPORT | SMART GRID | INDUSTRIAL | VoIP | CLOUD | SECURITY | NFV |

Teldat Group is a leading technology holding that designs, manufactures and distributes advanced Internetworking platforms for corporate environments, providing new and cutting-edge communication solutions without ever losing sight of its customers real requirements. Teldat's solutions development is based on proprietary technology, which is in the Group's DNA. This allows Teldat to be a leading provider in Enterprise Communications equipment and Services for the top corporate to midsized markets, as well as the SME and SoHo markets.

From a geographical viewpoint, Teldat Group has a presence in all continents, with its corporate headquarters located in Spain, and operational affiliates in Europe (Germany, Austria, Portugal, Italy and France) and in LATAM (Mexico and Brazil), as well as two business development offices in USA and China.

 **Teldat** | **GROUP** | Headquarters

Spain

Teldat S.A.
Parque Tecnológico de Madrid
Tres Cantos - 28760
Madrid (Spain)
Phone: +34 91 807 6565
info@teldat.com

Germany

bintec elmeg GmbH
Suedwestpark 94. 90449
Nuremberg (Germany)
Phone: +49 911 9673 0
info@bintec-elmeg.com

Our sales offices contact details are on www.teldat.com



©2018 Teldat S.A. | This data sheet shall be used only for information purposes. Teldat reserves the right to modify any specification without prior notice. All trademarks mentioned in this document are the property of their respective owners. Teldat accepts no responsibility for the accuracy of the information from third parties contained on this document.
Publish Date: August 30, 2018
Version: 20180830075721