

# Teldat-4Ge



Figure 1: Teldat-4Ge

## 4G/LTE peripheral for corporate routers

*“The 4G/LTE enabler is compatible with any existing router, easily resolving coverage difficulties and minimizing installation costs.”*

The Teldat-4Ge device is an external “Interface card”, which endows the corporate router with 4G. This latest generation peripheral does not require free expansion slots in the corporate router, or PCMCIA or USB slots. The only interface between the Teldat-4Ge and the router is Ethernet.

However, the Teldat-4Ge is not a router; it’s an interface guaranteeing 4G access for the router. Management for the new 4G interface is fully integrated in the router engine, so all intelligence implemented in the router for fixed WAN service is also on hand for the mobile WAN access. Communications, based on standard protocols through Ethernet between the Teldat-4Ge and the router, guarantees compatibility with a wide range of corporate routers available on the market.

This innovative device offers a simple, economically viable solution to increase 4G coverage in internal scenarios. The corporate routers are located at the Data Center, where normally 4G coverage is lacking, or if it does exist, the radio signal is insufficiently strong enough to guarantee high transmission speeds over 4G frequency bands. In response to this challenge, the Teldat-4GE is installed away from the location of the router, where the best 4G coverage is found, thus providing the router with 4G coverage via the corporate Ethernet network. This new focus removes the need to deploy expensive coaxial cables and repeaters to increase 4G coverage.

## ADVANTAGES

- **Noticeable reduction in costs and far better interior 4G coverage.** Expensive coaxial cables are not required, nor repeaters, to increase the 4G service quality; the 4G device communicates with the network platform via Ethernet.
- **Recycling of the already installed corporate routers park.** You don’t need free expansion slots in the router.
- **Compatible with third party corporate routers.** Communications with the router, based on standard protocols, guarantee compatibility with the vast majority of corporate routers from other manufacturers.
- **Completely manageable from the corporate router management engine.** The router handles the Teldat-4Ge device in exactly the same way as any other point-to-point communications interface that is resident in the router itself.
- **Fully prepared for Converging Services.** Traffic flow distribution policies can be implemented in the router to efficiently use the fixed WAN line and the Wireless WAN access (Teldat-4Ge) resources.
- **Seamless migration to new cellular technologies:** Adds the latest generation WWAN connectivity to your communications infrastructure without having to substitute or update your current router.
- **The best regarding scalability.** A single router can manage various Teldat-4Ges, permitting the co-existence of independent Wireless WAN services in the company for “Disaster-Recovery”.

## USER SCENARIO

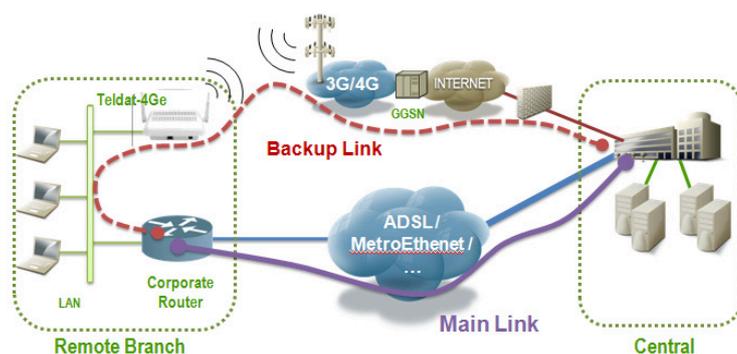


Figure 2: User Scenario

In the figure on the left, the corporate office ADSL router is equipped with a Teldat-4Ge device. On detecting a drop in the main line, the corporate router routes the IP traffic to the HSPA service.

To do this, a new point-to-point interface is configured in the router (virtual interface). Once the Teldat-4Ge has successfully registered in the cellular network, the obtained IP address is available in the router’s virtual interface so the router can use all its network intelligence over this new interface (IP routing, line supervision, QoS, VPN, etc.).

## PRODUCT SPECIFICATIONS

- **Auto-provisioning (the Teldat-4Ge does not require manual programming).** A new point-to-point interface is configured in the router to manage the Teldat-4Ge device. When this boots, it receives the full 4G and Ethernet programming through DHCP.
- **Advanced 4G diagnostics.** Comprehensive information is available on the radio interface monitoring for Quality of Service and tariffing auditioning tasks. Notably there are historic reports on the power of the received signal over the last hour, the transmission rate, detailed UTRAN information and an AT commands interface for low level management of the cellular interface.
- **Small,** this comes in versions for desktop and wall mount.
- **Power supply through PoE** (IEEE 802.3af) or an external source (included).
- **Two external SMA antenna connectors** mean you can use a wide range of external RF antennas.
- **Tray for an external SIM card with an antitheft system.**

## TECHNICAL SPECIFICATIONS

### Interfaces and connectors

1 x Ethernet 10/100/1000 interface, POE 802.3af client, RJ-45F  
1 x 4G interface (LTE, HSPA+/HSPA or CDMA-EVDO depending on the model)  
1 x SIM tray  
2 x SIM connectors for radio antenna

### PoE 802.3af Client

POE 802.3af client in RJ45 FastEthernet connector  
POE Class 0: 12,95W maximum

### WWAN Features

Automatic "Handover"  
Detection of 4G drops based on packet polling and idle timers.  
Instant bits rate  
GSM data calls (CSD)  
Real time WWAN monitoring: serving RSSI and neighboring cells.  
UTRAN information, information on modules, etc.  
Detailed WWAN information in the router CLI.  
Latest RSSI historic report.  
AT commands line interface.  
Double context (depending on the model).

### Management

Management protocol based on SMS.  
Zero-configuration.  
Updating of TFTP firmware (from Teldat 3Ge and the 3G module)  
Authenticated DHCP client.  
Telnet server for monitoring  
Events logging system for detailed resolution of problems.

### Environmental specifications

Temperature: 0 to 45 °C (32 to 113°F)  
Relative Humidity: 5% to 90% (without condensation)  
Altitude: 0 to 3000m. (0 to 10,000 ft)  
Barometric pressure: 700 mbar to 1060 mbar

*The Teldat-4Ge device is an external "Interface Card". All communication protocols and features contemplated for the existing router can be perfectly well applied in this new interface, such as: Quality of Service (QoS), VPN and Security features, queuing algorithms, interface monitoring, obtaining statistics, etc.*

## PRODUCT PHOTOS



Figure 3: Teldat-4Ge: perspective

## ORDERING INFORMATION

Part N°	Description
<b>Hardware (antennas included)</b>	
RC4GH003	Teldat-4Ge-H+ (HSPA+ in all the frequencies)
RC4GH005	Teldat-4Ge-LE (Europe) (Bands 1, 3, 7, 8 & 20 - 100/50 Mbps)
RC4GH007	Teldat-4Ge-LA (AT&T) (LTE Bands 4 & 17 - WCDMA 850/1900/2100 - 100/50 Mbps)
RC4GH009	Teldat-4Ge-LV (Verizon) (LTE Band 13 - WCDMA 850/900/1900/2100 - 100/50 Mbps)
<b>Power supply (optional)</b>	
RC4GAAC	Power supply with adaptors for the majority of countries
<b>Accessories</b>	
RWAEAP01	PoE injector kit to provide power over Ethernet to the Teldat-4Ge
RCATAEM1	Extension base for the multiband 4G antenna with SMA connector
<b>Antennas</b>	
RCATAAM2	3G (900, 1800 and 2100MHz) magnetic mount antenna, 1,5 meters
RCATAAM3	3G (900, 1800 and 2100MHz) antenna for ceiling installation
RCATAAM5	3G (900, 1800 and 2100MHz) antenna for wall installation, 5 meters
RCATAAM6	3G (900, 1800 and 2100MHz) antenna for wall installation, 10 meters
RCATAAM7	3G (900, 1800 and 2100MHz) antenna for roof installation (exterior)
RWTHAAM2A3	3G (900, 1800 and 2100MHz) dipole magnetic mount antenna, 3 meters

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## Cables

<b>RCATAAC1</b>	Ultra-low loss LMR400 coaxial cable, SMA connector, 6 meters
<b>RCATAAC2</b>	RF ultra-low loss LMR400 coaxial cable, SMA connector, 15 meters
<b>RCATAAC3</b>	RF ultra-low loss RF-7MM, SMA connector, 10 meters
<b>RCATAAC4</b>	SMA connector coaxial pigtail, 1 meter

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## Spare parts

<b>RCATAAM20</b>	3G/4G (LTE, HSPA+, HSPA, UMTS) dipole 90° mount antenna. White
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## Licenses

<b>RC4GS001A</b>	Router license for the Teldat-4Ge
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## Software

<b>RC4GS001A-NF</b>	Application software for the Teldat-4Ge. "New Features". version
<b>RC4GS001A-REC</b>	Application software for the Teldat-4Ge. "Recommended" version

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## TEL DAT DOCUMENTATION

This datasheet shall be used only for information purposes. Teldat reserves the right to modify any specification without prior notice.

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