

GPRS • EDGE • HSPA • HSPA+ • LTE

GWR CELLULAR ROUTER SERIES

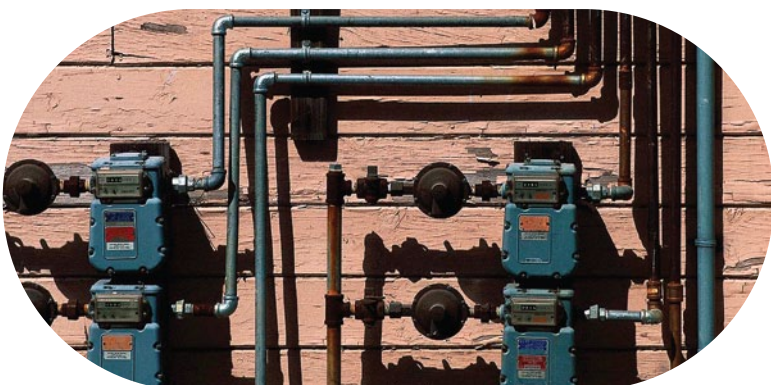


GWR routers represent a robust solution designed to provide remote connectivity across cellular networks. Low transmission delay and very high data rates offered by existing cellular networks completely eliminate the need for expensive wired infrastructure. GWR series brings scalability of even most demanding corporate networks on highest possible level. Installing a reliable, high performance backup solution for existing land lines or satellite networks is now a simple task thanks to modern cellular networks. Therefore, no matter if the goal is to provide primary internet access or backup solution for already existing network GWR router series represents a top rated solution.



So many useful features make GWR routers a perfect solution for wide variety of applications:

- Dual SIM card support increases the reliability of the router and provides a solution for those applications where failure of one mobile network must not result in system downtime. Automatic failover feature will detect the failure of primary connection and automatically switch to alternative connection. When the connectivity over primary connection is restored GWR router will perform switchover to primary connection.
- The whole set of advanced WAN settings allow a user to specify desired parameters in order to meet the requirements of specific cellular network. GWR routers proved themselves to be reliable and high performance devices in so many countries around the world. All advanced parameters included represent the result of detailed analysis of large number of different cellular networks. In few simple steps it is possible to optimize the performance of the router on almost any cellular network.
- VPN (GRE, IPsec and OpenVPN) tunnel support provides powerful options for network expansion and secure data transfer over the cellular network.
- With Serial-to-IP feature it is possible to connect, control and perform data acquisition from almost any device with serial RS232 port. In addition to this feature, GWR router series implements ModbusRTU-to-ModbusTCP functionality designed to support expansion of Modbus SCADA networks over the cellular networks.
- Easy to use web interface, extended CLI (Command Line Interface), detailed log, SMS control feature, partial and full configuration Export/Import and remote management and monitoring software provide wide range of management functionalities. All those features and tools empower a user with full control over GWR routers.



Typical application

There are practically no limits when it comes to possible application of GWR routers. Wired infrastructure is no longer necessary for building scalable and high performance systems. GWR routers will reduce the costs and speed up the ROI process for each one of possible applications. The list of most common GWR router applications is presented below.

Data collection and system supervision

- Extra-high voltage equipment monitoring
- Running water, gas pipe line supervision
- Centralized heating system supervision
- Environment protection data collection
- Flood control data collection
- Alert system supervision
- Weather station data collection
- Power Grid
- Oilfield
- Light Supervision
- Solar PV Power Solutions

Security

- Traffic control
- Video Surveillance Solutions

Financial and department store

- Connection of ATM machines to central site
- Vehicle based bank service
- POS
- Vending machine
- Bank office supervision

Other

- Remote Office Solution
- Remote Access Solution

There are numerous variations of each and every one of above listed applications. Therefore GENEKO formed highly dedicated, top rated support team that can help you analyze your requirements and existing system, chose the right topology for your new system, perform initial configuration and tests and monitor the complete system after installation. Enhance your system performance and speed up the ROI with high quality cellular routers and all relevant knowledge of GWR support team behind you.





Protocols and features

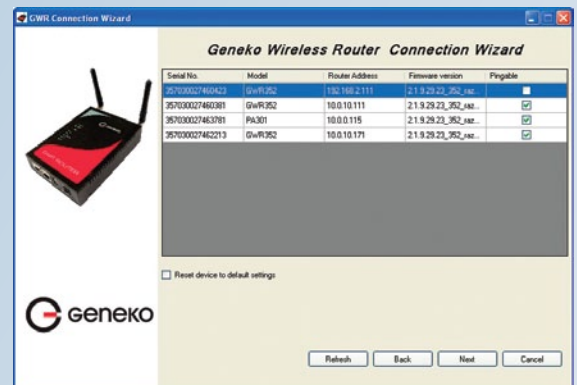
Network

- DHCP server
- RIP
- Port forwarding
- DMZ support
- SNMPv1,2c
- DynDNS
- NTP
- Firewall (NAT, PAT, IP filtering)
- Serial-to-IP
- ModbusRTU-to-ModbusTCP

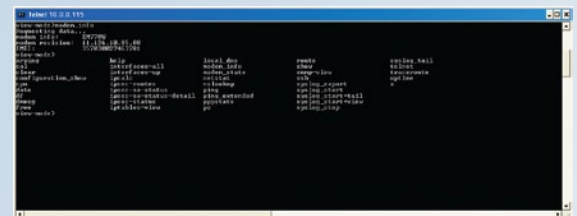
VPN

- GRE
- GRE Keepalive
- IPsec pass-through
- IPsec
- Data integrity
 - HMAC-MD5, SHA-1
 - Authentication and key management
- IKE, manual keys
- IKE features
 - Perfect Forward Secrecy
 - Auth-Method PSK
 - Identify IP address
 - DPD for constant connection
 - Automatic NAT-T behind NAT
 - Initiator and responder
- IPSec tunnel failover
- OpenVPN

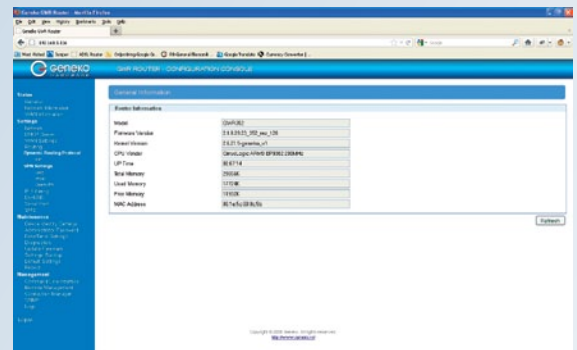
Management



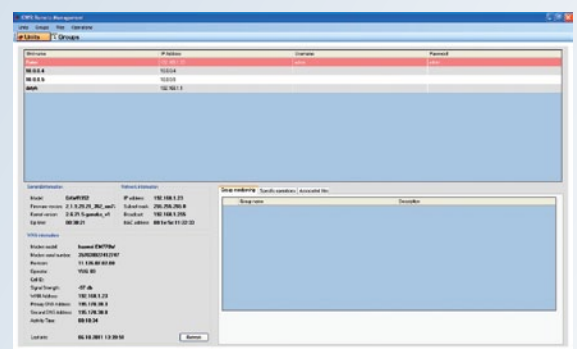
GWR connection wizard



Command Line Interface on serial console, telnet and SSH



Web application (HTTP based)



Remote management and monitoring software

- SMS control
- Detailed system log
- Default reset
- Firmware upload
- Partial or full configuration Export/Import

Technical specifications

RF characteristics

RF characteristics depend on the GWR router model. Below is a list of available router models from GWR series and corresponding RF characteristics:

GWR202 model – GPRS
(Part number: G016002008)

GPRS Tri-band: 900/1800/1900
GPRS multi-slot class 10, mobile station class B
GPRS DL: 85.6Kbps, UL: 42.8Kbps

GWR252 model – GPRS/EDGE
(Part number: G016002014)

GSM/GPRS/EDGE Quad band: GSM 850/900/1800/1900 MHz
GPRS/EDGE multi-slot class 12, mobile station class B
EDGE DL: 236.8Kbps, UL: 236.8Kbps
GPRS DL: 85.6Kbps, UL: 85.6Kbps

GWR352 model – GPRS/EDGE/UMTS/HSPA
(Part number: G016303012)

UMTS/HSDPA/HSUPA Quad band: 850/900/1900/2100 MHz
GSM/GPRS/EDGE Quad band: 850/900/1800/1900 MHz
GPRS/EDGE multi-slot class 12, mobile station class B
HSDPA DL: 7.2Mbps, HSUPA UL: 5.76Mbps
UMTS DL: 384Kbps, UL: 384Kbps
EDGE DL: 236.8Kbps, UL: 236.8Kbps
GPRS DL: 85.6Kbps, UL: 85.6Kbps

GWR352+ model – GPRS/EDGE/UMTS/HSPA/HSPA+
(Part number: G017101001)

UMTS/ HSDPA/HSUPA/HSPA+: Quad band:
850/900/1900/2100 MHz
GSM/GPRS/EDGE Quad band: 850/900/1800/1900 MHz
GPRS/EDGE multi-slot class 12, mobile station class B
HSPA+ DL: 84Mbps, UL: 22Mbps
HSDPA DL: 7.2Mbps, HSUPA UL: 5.76Mbps
UMTS DL: 384Kbps, UL: 384Kbps
EDGE DL: 236.8Kbps, UL: 236.8Kbps
GPRS DL: 85.6Kbps, UL: 85.6Kbps

GWR402 model – GPRS/EDGE/UMTS/HSPA/HSPA+/LTE
(Part number: G017101002)

LTE Five band: 800/900/1800/2100/2600 MHz
UMTS/ HSDPA/HSUPA/HSPA+ Dual band: 900/2100 MHz
GSM/GPRS/EDGE Three band: 900/1800/1900 MHz
GPRS multi-slot class 10, mobile station class B
EDGE multi-slot class 12, mobile station class B
LTE DL: 100Mbps, UL: 50Mbps
HSPA+ DL: 84Mbps, UL: 22Mbps
HSDPA DL: 42.2Mbps, HSUPA UL: 5.76Mbps
UMTS DL: 384Kbps, UL: 384Kbps
EDGE DL: 236.8Kbps, UL: 236.8Kbps
GPRS DL: 85.6Kbps, UL: 85.6Kbps

Interfaces and connectors

- 1x embedded interface LTE/HSPA+/HSPA/UMTS/EDGE/GPRS (depending on the router model)
- Dual SIM slots
- SMA female connectors (50 Ω) for external antenna (one or two, depending on the router model)
- 1x Ethernet interface 10/100 Base-T (LAN)
- 1x Serial RS-232 interface
- 1x USB Host 2.0 interface

Status LED

- Ethernet activity/network traffic
- Power on
- GSM link activity
- Signal quality
- Reset

Power requirements

- 9-12VDC / 1000mA (9-36V DC option is available)

Environmental

- Operating temperature: -10° C to 55° C (14° F to 131° F)
- Storage temperature: -20° C to +85° C (-4° F to +185° F)
- Relative humidity: 5% to 95% (non-condensing)

Housing

- Robust metal housing with optional DIN rail mounting kit

Dimensions and weight

- Size (W x D x H): 95 x 135 x 35 mm
- Weight: 380 gr

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