



Advantages

- 2 SIM card support
- Download up to 7.2 Mbps
- Remote equipment control
- Connection with remote devices
- Primary and backup Internet access
- Ethernet Network Routing between LAN and joint network or Internet

Introduction

Geneko GWR Series Routers enable alternative connection of computers and small computer networks (LAN) in remote business units with central server over mobile network and Internet, using GPRS/EDGE/HSDPA/HSUPA technology, primarily at locations where there is no other way for connection. This device is also designed for access to Internet by one or several PCs or engaging other networks devices (automatic units, sensors . . .), but also for securing spare (redundant) IP connection or connecting field mobile systems with central computer.

System description

Central processor unit of Geneko GWR Router is based on ARM CPU family. WAN connection to GSM and UMTS networks is provided by integrated GPRS/EDGE/HSDPA/HSUPA module. GWR Router provides communication with outside devices through Ethernet and RS232 connection. The operation system of device is reliable and efficient GNU/Linux, which provides necessary functions of a modern router. Beside static and dynamic routing function, this operation system performs as well all other functions characteristic for network routers, like: DHCP server, IP filtering, NAT/PAT translation, etc. System concept enables great flexibility and adaptability for other specialized purposes as well. Device support operation with two SIM cards (alternate connection), so that in case of one connection interruption, it automatically transfers communication to the other connection (SIM card) with possibility of automatic relapse to first connection.

Technical specifications

Network functions	TCP/IP protocols set, DHCP server/client, GRE+keepalive/IPSec VPN tunnels, Rip, Ser2Net, NTP, SNMP, GSM Failover	
Indicators - LED diodes	Ethernet, Power on, GSM/UMTS link activities, signal level	
Router/firewall characteristics	NAT/PAT, IP forwarding, IP filtering	
Ethernet interface	RJ-45, IEEE 802 standard, 10/100Base-T, 10/100Mbps data rate, full or half duplex mode	
RF characteristics of GPRS/EGDE/HSDPA/HSUPA modules depend of GWR Router model	Model	Description
	GWR201, GWR202 GWR201-B, GWR202-B	GPRS Router with single and dual SIM card support; Up to 85.6 kbit/s Quad-Band: GSM 850/900/1800/1900 GPRS Multislot Class 12 / 10 / 8
	GWR251, GWR252 GWR251-B, GWR252-B	GPRS/EDGE Router with single and dual SIM card support; up to 236.8 kbit/s Quad-band GSM 850/900/1800/1900 MHz EGPRS Multislot Class 10 / 8
	GWR301, GWR302	GPRS/EGDE/HSDPA Router with single and dual SIM card support; up to 3.6 Mbps Three band UMTS 850/1900/2100 MHz Quad band GPRS/EDGE 850/900/1800/1900 MHz
	GWR351, GWR352	GPRS/EGDE/HSDPA/HSUPA Router with single and dual SIM card support WCDMA 850/1900/2100 MHz; Downlink up to 7.2Mbps, Uplink up to 2.0Mbps (upgradeable to 5.76 Mbps); GSM/GPRS/EDGE 850/900/1800/1900 MHz
Interface for configuration	WEB application through HTTP protocol, console application through serial port RS232	
Power supply	9-12 V DC, 1A	
Operating temperature	-5° to 50°C	
Dimensions	135x95x35 mm	
Weight	380 gr	

Typical applications

Geneko GWR Router is universal communication device for business and personal use with wide application range.

A. Multi-point to Center

Connections of remote devices to central server by routers they become a part of the same customer IP network. Most common use of this configuration is for connecting points of sale to centre. Other options of GWR Router application are connection of ATM terminals, POS terminals, UPS devices or data acquisition from various sensors and measure devices and sending to remote server. For provision of Machine-to-Machine (M2M) application it is not necessary to use HSDPA or HSUPA service; GPRS and EDGE can completely cover the system requirements. Models GWR20x and GWR25x are typical used in these applications.

B. Ethernet Network Routing

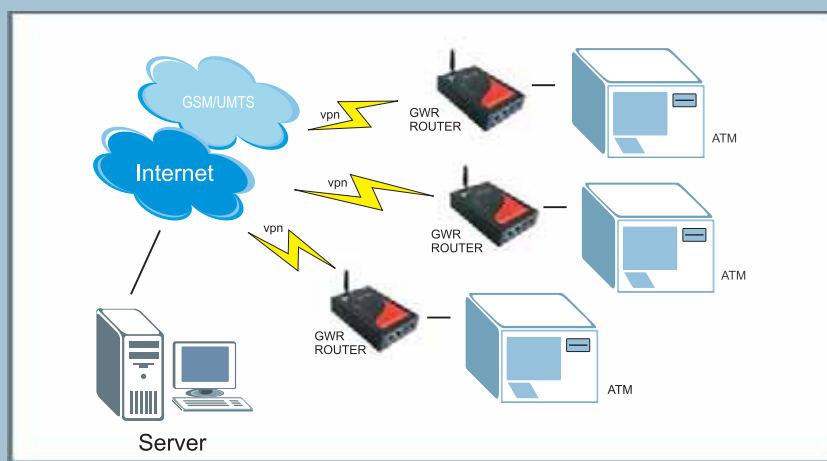
Geneko GWR Router's application in this configuration provides connection for several computers, devices or local computer network into joint computer network. The same concept enables access of large number of computers of the same local network to Internet available through service provided by mobile operator. These solution can be used for fast implementation of temporary local network with broadband connection in places with no other communication infrastructure, as on building sites or during business events or for video monitoring. For this purpose routers series GWR25x, GWR30x and GWR35x are used since they support EDGE, HSDPA and HSUPA technologies with faster data transfer.

C. Direct connection

In case of direct connection of desktop or portable computer with Geneko Router, Internet access is provided through GSM and UMTS networks. This option is usually implemented as the auxiliary one in case when conventional connection (hired line, ADSL, cable connection...) is out of function or as primary connection in case of temporary Internet access during field operation or afloat.

D. Serial to Ethernet Converter

GWR Router can be used as media converter, i.e. for connecting network devices and devices containing standard serial port RS232 as the only way of communication. In this case router performs processing of communication from serial port and conversion in TCP/IP packages. GWR Router does transfer of these packages to remote computer system or computer in local network, which have client application.



Geneko GWR Router - Multi-point to Center connection topology

CE certified