

dovado™

## Wireless Residential Gateway

THE BEST OF BOTH WORLDS



The **Dovado Wireless Residential Gateway** enables wireless broadband operators and service providers to equip subscribers with IP Telephony lines along with a secured form of wireless broadband Internet access such as 3G/HSDPA, 3G/UMTS-TDD, FLASH-OFDM® and Mobile WiMAX. For latest info, please visit [www.dovado.com/backhaul](http://www.dovado.com/backhaul). The **WRG** unit works towards the wireless network in combination with a wireless PCMCIA card. The subscriber can then plug in a phone or fax and be part of a telecom service.

### Multiple broadband services

The subscriber can connect to the Internet without requiring any additional equipment thanks to native routing capabilities. The **WRG** is capable of providing High Availability of redundant SIP servers for telephony.

### Easy to use IP-Telephony

To use the IP Telephony services, the subscriber can connect a standard analog phone or fax machine to the **WRG** unit. Up to five telephones can be connected in a series to the telephone port.

### High quality IP-Telephony services

The **WRG** enables carrier-grade voice quality through priority mechanisms found on the Ethernet and IP levels. Both narrow and wideband speech codecs can be used. G3 fax and class 5 services (e.g. call waiting, 3-party call) are supported. External Class 5 services, provided by the SIP Operator, can be activated and deactivated.

### Wireless LAN

Incorporates capabilities for allowing wireless-enabled computers and handheld devices to connect to the Internet.

### Simplicity through remote management

The **WRG** is plug-and-play for the subscriber. It is designed for remote management, configuration and software upgrades. The **Dovado Gateway Manager** simplifies the management of the Wireless Residential Gateway for the subscriber, service provider and operator.



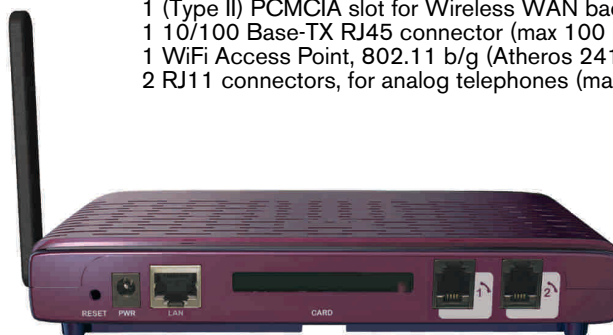
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Wireless Broadband Access & Telephony

# Product Specification for WRG

## Interfaces

PCMCIA WWAN  
Ethernet LAN  
WiFi  
Telephony



1 (Type II) PCMCIA slot for Wireless WAN backhaul  
1 10/100 Base-TX RJ45 connector (max 100 m)  
1 WiFi Access Point, 802.11 b/g (Atheros 2413 chipset)  
2 RJ11 connectors, for analog telephones (max 500 m)

## Security

WEP  
WPA  
PPPoE

Wired Equivalent Privacy keys for Wireless LAN – 64,128-bit encryption  
Wi-Fi Protected Access (802.11)  
Supports PPPoE (RFC 2516)

## Telephone and fax services

Internal Class 5 services  
External Class 5 services  
G3 Fax  
Calling number identification  
3rd Party initiated pause and rerouting  
DTMF

Call waiting, 3-party call, call alteration, differentiated ringing tones  
Activation of class 5 services supported by IP-telephony system  
T.38 Fax  
FSK, DTMF  
External re-routing of media-stream during speech, e.g. for pre-paid calling card and record announcement  
In-band and out-band using H245 and H225 bidirectional

## QoS for real-time services

Speech Codecs  
DiffServ  
Class of Service  
General

G711, G729.a/b  
Level 3 (IP) mechanism for handling of QoS  
Level 2 (Ethernet) mechanism for handling QoS  
Adaptive Jitter buffer, echo cancellation, speech sampling 10–150ms, silence suppression with comfort noise.

## Management

SNMP Management  
Internal Web server  
Enhanced Plug & Play functionality  
DOVADO Gateway Manager

For remote management, SNMPv1, MIBII, Enterprise MIB  
DHCP messages option 60, 61, and 43.  
For optimal handling of large population of units

## Flexibility & Service differentiation

Number of telephones  
Regional Settings Properties  
NAT

Up to 5 analog telephones can be connected in series to each telephone port  
Telephony signals, tones and cadences  
Private IP Addressing Scheme (ex. 192.168.X.X)

## Protocols and standards

WRG complies with the following standards

IPv4, TCP, UDP, RTP, DHCP, RTCP, SNMP, IEEE 802.1D, IEEE 802.1Q, IEEE 802.1P, IEEE 802.2, IEEE 802.3, 802.11 b/g, ICMP, HTTP, TFTP, NTP, SIP (RFC3261), G.711, G.729a/b, G.165, G.167, G.168, G3, FSK, DTMF, T.38 Fax

## Reliability

MTBF  
Configurable HA Server

>300 000 hours  
High availability through server back-up

## Physical and environmental

Dimensions  
Weight  
Power requirements (incl. AC/DC adapter)  
Power Supply  
Front panel LEDs  
Operating conditions

32 mm (H) x 145 mm (D) x 189 mm (W)  
Approximately 250 grams  
7.5–10.5 watts  
12VDC, 1.25A, external adapter (100–240VAC, 1.0A max, auto-ranging, 50–60Hz)  
Power, WWAN, LAN, Phones  
Temperature 0°C–40°C, humidity 10–95% RH non-condensing