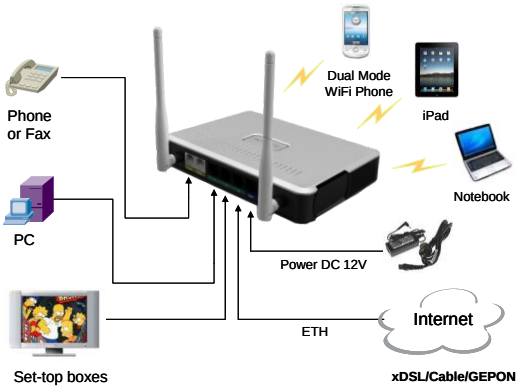
iSurf ™ 1000 Multi-Service Home Gateway

Perfect Triple Play Solution for Home and Small Office



The iSurf™ 1000 multi-service home gateway is a state of art home gateway product specially designed to provide integrated broadband services to residential or SOHO customers. It allows broadband service provider to offer triple play services (data, VoIP, WiFi) to its residential customers at extremely affordable cost. The product offers a variety of user networking interfaces including LAN Ethernet ports, analog phone line port, master USB port and 802.11n/g/b WiFi interfaces. User can easily connect multiple PC or LAN devices to the unit via Ethernet or WiFi interfaces while having reliable VoIP phone service at same time. The USB port provides addition flexibility to connect USB devices such as camera, sensor or 3G modem to further expand the service offering.

The iSurf™ 1000 is developed using single SoC silicon solution and most advanced soft DSP processing technologies to maintain the best performance and cost in home gateway design. It also provides extensive feature and service capabilities in data, SIP VoIP and Wi-Fi networking. Its unique hardware NAT acceleration technique allows the product to achieve extremely fast data throughputs even in router operation mode.



In addition to the advanced networking capabilities, iSurf™ 1000 also provides rich management interfaces to allow local and remote device management. Its user friendly WEB management interface is well designed to provide quick installation and setup for user as well as advanced configuration for the device administrator. Standard based TR-069 and SNMP management capabilities will also be supported in the very near future.

The iSurf™ 1000 also offers unique virtual Wi-Fi networking capability. This capability allows service provider to quickly build a virtual Wi-Fi network overlay over the iSurf™ 1000 units deployed in custom homes. Access to the virtual Wi-Fi network can be centrally managed independently of the device home Wi-Fi networking. The public virtual Wi-Fi networking provides new service revenue channel in fixed and mobile convergence (FMC) applications for the service operator.

PRODUCT HIGHLIGHTS

- Integrated Access for Data, Voice and 802.11n Wi-Fi
- Bridge and Router Operation Mode Support
- Advanced Data Networking Features (High Speed NAT, PPPoE, L2TP, DHCP, Firewall, QoS, etc.)
- Enhanced VoIP Networking and Capabilities (Basic & Enhanced Services, Country Customization)
- Advanced 802.11n Networking Capability with WPS Support
- Private and Public Virtual Wi-Fi Networking Capabilities
- Rich Management Interfaces (Telnet, WEB, SNMP* and TR-069*)

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PHYSICAL

Dimensions	135mm (L) x 105mm (W) x 30 mm (H)
Weight	< 300g
Power	< 10 Watts
Power Supply	12V DC

ENVIRONMENTAL

Temperature	-5 ℃ - 50 ℃
Humidity	90% maximum Non-condensing
Storage	-20℃- 65℃

SYSTEM

Interface	1 10/100M Ethernet WAN Port (RJ45)
	802.11n/g/b WiFi (2.4GHz)
	3 10/100M Ethernet LAN Ports (RJ45)
	1 or 2 Analog Phone Ports (RJ11)
	1 Host USB Port (2.0)
System LEDs	Power, WAN, WLAN, LAN1-3,
	Phone, Voice Mail
Line Distance	> 1 km

WIRELESS

Standards	IEEE 802.11n, IEEE 802.11g&b
Radio	2.4-2.497GHz (2x2 MIMO)
	20dBm ±1dB per antenna
	20/40MHz channel bandwidth
Antenna	Two 3dBi dipole external antennas
Security	64/128 bit WEP encryption
	WPA/WPA2/WAPI authentication
	WPS (WiFi Protected Setup)
QoS Support	WMM, WMM Power Save
Networking	Private home networking
	Virtual public networking

VOIP PROCESSING

Compression	G.711 a
	G.711 u
	G.721
	G.729
Comfort Noise	Comfort noise generation and control
Echo Cancellation	G.165/G.168-2000 echo cancellation
Silence Suppression	Silence detection and suppression
Fax Support	T.30 and T.38
Delay/Jitter/Loss	Delay, jitter, packet loss compensation
DTMF Relay	In-band DTMF, RFC 2833, SIP signal
Call Duration	> 48 hours Uninterrupted Call

VOICE SERVICE

Basic Voices

- Local and domestic and international long distance calls
- Flexible dial plan configuration support
- Tone customization for different countries

Complementary Services

- Caller ID, Caller ID suppression, Call Screening, Speed dial, Call Tracing, Hotline, Unconditional call forwarding, Call Forwarding No Answer, Call Forwarding on Busy, Call Waiting, Call Back, Call Blocking, No Disturbance, Alarm, Network and Local 3-way Call, Data Call, and etc.

Billing Service Support

- Z interface polarity reversal

NETWORKING CAPABILITIES

Data Networking

- Router and Bridge operation mode support
- WAN DHCP or static IP address assignment
- WAN L2TP and PPPoE client support
- DHCP and NAT service for LAN and WiFi devices
- SPI Firewall and DMZ support
- VPN Pass-through support (PPTP / L2TP / IPSec)
- Support for DNS, NTP, TFTP, FTP services
- QoS and VLAN management support (coming release)

VoIP Networking

- Soft switch based network configuration
- Device peer to peer networking support

INDUSTRY STANDARDS

IEEE

IEEE 802.3	10Base Ethernet
IEEE 802.3u	Fast Ethernet
IEEE 802.1p	CoS Priority Protocol
IEEE 802.1Q	VLAN Tagging

IETF

IP voice	SIP v2.0

SAFETY COMPLIANCE

FCC	Part 15, 68
CE	EN55022, EN55024

MANAGEMENT

User Management	Telnet, Web, Console (debug)
EMS Management	TR-069 (in coming release)
Others	FTP Auto Firmware Upgrade

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