

ADSL2/2+ IAD with 11N WiFi

AVS920WN

CastleNet's AVS920WN is a highly integrated IAD which enables ADSL2+, WLAN, VoIP, Switch, File server and Printer Server together. It is positioned to enhance the user's triple play broadband experience with excellent QoS and traffic management.. This new generation of platforms not only eases the deployment of DSL-based IAD but also provides new opportunities for the service provider to derive additional value from the emerging VoIP and IP Video service.

The capabilities of the AVS920WN allow for some highly advanced applications beyond just typical DSL, but also WLAN access points, VoIP, File server and Printer server. AVS920WN also provides TR-069 CPE WAN Management Protocol which eases and reduces the management effort of the service providers.



Specification / Data Protocol

Physical Interfaces

- One ADSL port for WAN and PSTN backup
- Four 10/100 Mbps Fast Ethernet ports for LAN
- IEEE 802.11 b/g/n Wireless AP with WPS auto setup
- Two VoIP FXS ports
- Two USB 2.0 host ports for USB mass storage and Printer
- One USB 1.1 device for LAN client

ADSL Compliance

- G.994
- G.992.1 (G.dmt) - Annex A and B
- G.992.2 (G.lite) - Annex A
- ANSI T1.413
- G.992.3 (ADSL2), Annex A, B, L, and M
- G.992.5 (ADSL2+), Annex A, B, and M

ATM protocols

- Up to 16 PVCs
- OAM F4/F5 loop back
- Adaptation Layers AAL5, AAL2 and AAL0 are supported.

PPP support

- PPP over ATM PVC (RFC 2364&RFC1577)
- PPP over Ethernet (RFC2516)
- Multiple PPPoE sessions on single PVC
- PPPoE pass through
- PAP, CHAP, MS-CHAP authentication supported

Networking Stack

NAT Static Port Mappings, NAT/NAPT

Bridging IEEE 802.1d Bridge

Routing Static route, RIP v1 / v2

Multicasting

IGMP Proxy v1/v2/v3, IGMP snooping v1/v2

Management

SNTP, DDNS, UPnP, HTTP, FTP, TFTP, Telnet, SSH, SNMP, TR-069, DHCP client/server/relay

Firewall / Security

- SPI (Stateful Packet Inspection) Firewall
- Intrusion alert
- Application layer gateway for H.323, SIP, IPSec/L2TP/PPTP, etc
- Mac/IP/TCP/interface Filtering
- Denial of Service (DOS)
- Advanced DMZ
- IPSEC / PPTP Pass through

Quality of Service (QoS)

- ATM QoS
- CBR, rt-VBR, nrt-VBR, UBR-with-PCR, UBR
- IP/Bridge/802.1P Qos



Features

- Compliant to DSL Forum TR-048, TR-067 and TR-100 Interoperability Test
- Feature-Rich TR-069 supports Remote Registration / Remote Authentication / Remote Configuration
- Complete solution for integration of ADSL, Router, Switch, 11N Draft 2.0 WLAN and VoIP
- Advanced MIMO technology provides enhanced wireless speed/range and wide coverage area
- WPS support for easy WLAN client setup
- Outbond Proxy for NAT Traversal
- POTS Lifeline backup
- T.38 fax support
- SIP supported for VoIP signaling
- User can browse the Internet while talking on the phone and watch IPTV simultaneously
- Remote / Local configuration & management through Web / Telnet configuration & management
- Three levels access account management
- Device management access control based on source IP addresses and incoming interfaces
- System management includes SNMP, Telnet command line interface and web interface

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Voice over IP Specification

Voice over IP Protocols

RFC 3261 SIP V2.0

Voice Codecs

G.711, G.722, G.723.1, G.726, G.729A/B

Fax Protocol

T.38

NAT Traversal

Out-bond Proxy

Tone Generation / Detection

Echo Cancellation

CID Generation

Environmental Specification

Power Input Device input power at 12VDC/1.5A
 Power Consumption 15W
 Operating Temperature 0 degrees to 40 degrees Celsius
 Humidity 95% non-condensing

Application Features

Generation Application Features

Display name and address
 SIP Network re-registration

DTMF

Inband

Basic

Tone generation / Detection
 Echo cancellation
 CID generation (Calling ID)

Call Features

Hold / Retrieve
 Transfer
 Conference call
 Waiting
 Forwarding unconditional
 Forwarding busy
 Forwarding no response
 Anonymous call

Wireless Specification

Standards: IEEE 802.11b/g/n wireless LAN

Frequency Band: 2.400 ~ 2.4835 GHz ISM band

Modulations:
 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK)
 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK)
 802.11b: CCK (11 Mbps, 5.5 Mbps)
 DQPSK (2 Mbps)
 DBPSK (1 Mbps)

Data Rate:
 11 b/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps
 11 n Draft 2.0:
 20MHz BW: 13, 26, 39, 52, 78, 104, 117, 130 Mbps
 40MHz BW: 27, 54, 81, 108, 162, 216, 243, 270, 300 Mbps

Encryption: Hardware-based IEEE 802.11i encryption /decryption engine, Includes 64-bit/128-bit WEP, TKIP, 802.1x, WPA/WPA2 and AES

Operating Range:
 Open space: 100m ~ 300m
 Indoor: 35m ~ 100m

Ordering Information

Models	Description
AVS920WN	ADSL 2/2+ IAD with 4-port switch, VoIP and 802.11b/g/n integration

*This brochure is a preliminary version for the customer comment and reference. The specification could be modification without prior notice.



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