

Turn Broadband Inside Out

The world's first outdoor intelligent gateway solution



HomePortal® iNID Outdoor Intelligent Gateway

Built to deliver unsurpassed accessibility and cost-saving benefits to carriers deploying triple play services

The HomePortal® iNID (Intelligent Network Interface Device) i3812V outdoor intelligent gateway mounts to the side of the subscriber's home in a hardened, weather-resistant enclosure that is easily accessible to carrier technicians. This decreases the complexity and cost of carrier "truck roll" technician installations required for VDSL2 and FTTP deployments.

By transferring intelligent gateway functions and all service and network terminations to the side of the house, the HomePortal iNID eliminates the signal loss typically associated with in-home DSL wiring. The location at the side of the house also allows for an easy connection between the iNID's integrated VoIP function and the home's existing phone wiring.

The outdoor location also provides carrier technicians easy access to home coaxial cable wiring, which can be reused to distribute high-speed LAN technologies to video set top boxes and other networked consumer devices throughout the home.

Key Features and Benefits

- Rugged outdoor design extends the carrier's network to the edge of the home.
- Robust home networking platform distributes high-bandwidth triple play services throughout the home.
- Power module inside the home powers the HomePortal iNID through existing home phone wiring. User-replaceable integrated battery provides reliable backup power.
- Leading-edge bonded VDSL2 modem technology terminates outside the home, eliminating the need for dedicated "home runs" and reducing interference from home wiring.
- Remote upgrades and support, enabled by the gateway's TR-069 management interface, reduce truck rolls and customer care costs.
- Two independent HPNA channels separate IPTV from user data traffic, delivering an interruption-free television viewing experience to subscribers.
- Two integrated ATAs outside the home mean cost-effective VoIP deployments, eliminating expensive truck rolls and home rewiring.

*HomePortal iNID won the Light Reading
Leading Lights award for the Best New
Product from a Private Company*



Blur the Lines Between the Home and Carrier Networks. By moving the gateway to the outside of the subscriber’s home, the HomePortal iNID blurs the line between the home network and the carrier’s infrastructure. The gateway becomes part of the service provider’s network, which removes the burden of maintenance and management from the subscriber. In addition, because the iNID is mounted to the home, the carrier can provide uninterrupted or “warm” services during tenant or homeowner turnover. New residents can become new subscribers at will—receiving high-bandwidth broadband service, high-powered home networking features, and a secure firewall without having to wait for a technician.

Deliver Advanced Services. The HomePortal iNID i3812V outdoor intelligent gateway combines a robust home networking platform with bonded VDSL2 modem technology, creating the ideal solution for delivering IP video and other high-bandwidth applications throughout the home. Home networking options include HPNAv3.1 via coaxial and twisted pair, Ethernet, and an optional customer-installable plug-and-play 802.11g Wi-Fi access point.

Eliminate “Cold Spots” Throughout the Home. A customer-installable wireless access point (i38HG) provides HyperG® high-powered wireless and wired Ethernet coverage inside the home. Multiple i38HG wireless access points (up to eight) can be placed throughout the premises to increase wireless coverage or offer additional connection points for wired Ethernet. Each i38HG access point is connected to the HomePortal iNID i3812V gateway via HPNAv3.1 on twisted pair. In addition, each i38HG access point features LED indicator lights—VoIP line 1 and line 2, NID connection, broadband, and service—that mirror the status of the outdoor unit, so the user can conveniently monitor network and service status from inside the home.

Power Up. The iPSU power module inside the home powers the HomePortal iNID i3812V gateway through dedicated phone wiring. An optional carrier-supplied battery may be installed with the iPSU power module to provide a reliable

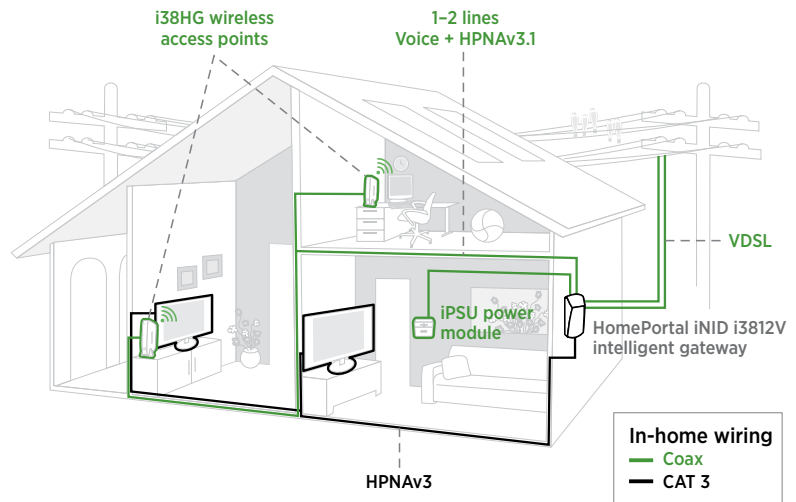
source of backup power in the event of residential power loss, ensuring fewer service interruptions. A service-indicator LED light on the module enables users to conveniently monitor the status of the power supply, while a separate indicator reports the status of the battery (if installed).

Drive Down Costs with Remote CPE Management. The iNID’s remote management features allow you to control every facet of broadband service delivery and deployment. The HomePortal iNID i3812V intelligent gateway is

compliant with the Broadband Forum TR-069 CPE WAN Management Protocol Standard and Parameter Model, and can be configured to support numerous vendor parameter extensions for additional functionality. Management support for the i38HG wireless access point is built into the HomePortal iNID i3812V gateway from the outset. Using 2Wire CMS, providers can remotely configure and troubleshoot network devices, as well as deploy software updates, new services, and upgrades to subscribers individually or in large-scale groups.

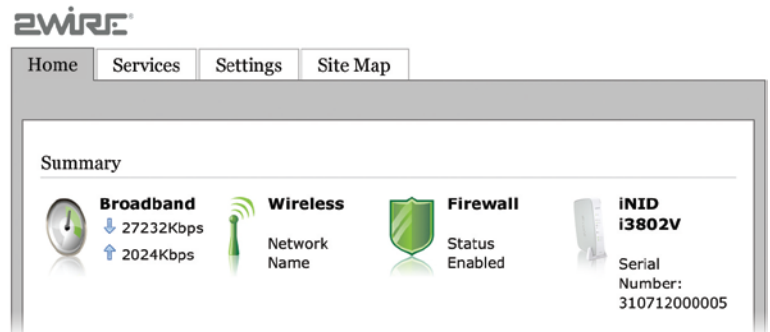
Diagram of an iNID Network

A typical iNID installation. Multiple i38HG wireless access points placed throughout the home boost wireless coverage and offer wired Ethernet connection points in multiple rooms.



The 2Wire Gateway User Interface

Take the work out of managing a local network. Users see important information about the DSL connection, the devices on the network, firewall logs, and more. Optional notification features let users know if there is a problem and guides them to a resolution.



Optional Enhanced Features

Go beyond the triple play by offering subscribers a suite of gateway-based services. The flexible HomePortal gateway platform can also support a variety of next generation applications designed to increase stickiness, revenue per user, and customer satisfaction.

Home Networking

Set up a high-speed home network quickly and easily; share files, printers, and a broadband connection with every computer and network-ready device in the home.

Firewall Monitor

Eliminate security issues before they have a chance to proliferate. Firewall Monitor watches for suspicious activity and notifies users about attacks.

Parental Controls (Internet Access Controls and Content Screening)

Limit access to specific Websites, monitor browsing history and usage, and enforce time restrictions on common applications.

VPN Services

Remotely connect to the base network with the same ease and security features enjoyed at the home base.

Web Remote Access

Get fast, easy access to the HomePortal network remotely using just a standard Web browser, an Internet connection, and network password.

HomePortal iNID Technical Specifications

HomePortal i3812V Intelligent Gateway

DSL Functionality

- Two VDSL2 interfaces
G.993.2 Annex A (North American band plan)
G.993.2 Profile 8d, 12a
G.993.2 section 5.4.2
G.993.2 section 5.4.1
- Ethernet Bonding per ITU-T G.998.2
- Integrated filter (prevents VDSL signal from entering the home)

Local Network Interfaces

- Two HPNAv3.1 interfaces, coax and twisted pair, utilizing CopperGate 3110 chipset
- Two 10/100 Ethernet ports, one dedicated for technician access
- Paired with i38HG wireless access point to provide wired Ethernet and 802.11g wireless coverage in the home

VoIP Functionality

- Two integrated ATAs
- SIP user agent interoperability with Broadsoft Broadworks v11.1, Nortel MCS 5200, Alcatel-Lucent IMS, and Sylanro servers
- Audio codec: G.711, software-upgradeable to support G.729a
- Voice over Wi-Fi support for UMA and IMS wireless mobile phones

Software Tools and Diagnostics

- Bulletin messaging system integrated with 2Wire CMS for subscriber messaging

Configuration

- Simple Web-based user interface for easy configuration and diagnostics
- Quick summary page with shortcuts to most commonly used features
- Interface customizable per provider requirements
- Multiple language support

Network Protocol Support

- IPv4, IPv6 capable, TCP, UDP, ARP, ICMP
- DHCP client/server, DNS client/server, HTTP client/server
- Single IP and multi-IP support
- Multicast IGMP proxy, IGMP snooping
- 802.1x broadband authentication

Diagnostics and Management

- Remote management and provisioning via SSL connection from 2Wire CMS (Broadband Forum TR-069)
- Web-based remote gateway technician view and remote management capabilities via TR-069 management interface
- Supports TR-069 extensions TR-098, TR-104, and TR-111
- Integrated gateway-based diagnostics automatically intervene during error conditions, intercept subscriber Web requests, and provide self-guided resolutions
- Extensive performance counters available via the gateway's user interface and via TR-069 management interface

- Test tools (ping, traceroute, DNS lookup) available via the gateway's user interface
- Multicolor indicator lights on outdoor and indoor units monitor network connections and assist with troubleshooting
- Factory reset button on iPSU; reset function also available via the gateway's user interface

Security

- Integrated firewall includes stateful packet inspection (layer 4) and local IP spoofing verification
- Supports stealth mode operation
- Unique signed security certificate manufactured into each gateway for TR-069 management authentication
- Password-protected management interface

NAT/PAT Support

- Supports NAT/PAT between LAN and WAN
- Automated NAT pass-through for LAN client-initiated VPN tunnels (IPSec, PPTP, L2TP), SIP, H.323, RTP
- Easy-to-configure NAT pass-through (pinholes) for common applications (games, servers, etc)
- DMZplus for automatic WAN IP assignment to a local PC
- Supports most popular ALGs: HTTP, FTP, H.323, AIM, MSGAMES, DIABLO, IPSEC-IKE/ESP, IRC, MSN, PPTP, RTP, RTSP, and SIP

Continued on next page

i3812V Technical Specifications continued

Software Upgrades

- Secure TR-069 upgrade procedure via 2Wire CMS

Standard Hardware Features

- Built-in wall mounting channels for exterior surface mounting

Physical Specifications

- 13.0" (height) x 13.0" (width) x 6.0" (depth)
(33.0 cm x 33.0 cm x 15.2 cm)

Operating Environment

- Operating temperature: -40° C (-40° F) with no sunlight to 46° C (115° F) in full sunlight (ambient)
- Shipping and storage: 0° to 70° C (32° to 158° F)
- Altitude: 0 to 13,000' (0 to 3,962 m) mean sea level
- Relative humidity: 5% to 95% non-condensing

Compliance and Certifications

- GR-1089
- CSA Safety Listing
- TIA-968-A (Part 68)
- GR-49
- GR-63
- GR-3108
- AT&T TP76200

Minimum Requirements

- All computers and devices to be connected to the gateway must have an Ethernet network interface card (Windows 98, 2000, ME, XP, or Vista only; Mac OS 8.6 to 9.x, and 10.2 or higher)

iPSU Power Module

Power Profile

- Manageable power supply with backup battery
- Provides power over twisted pair to outdoor unit

Physical Specifications

- 6.5" (height) x 7.5" (width) x 4.5" (depth)
(16.5 cm x 19.1 cm x 11.4 cm)
- Weight: 1 lb (0.5 kg) without battery, 11 lbs (5 kg) with battery

Operating Environment

- Operating temperature: 5° to 50° C (41° to 122° F) (ambient)
- Shipping and storage: 0° to 70° C (32° to 158° F)
- Altitude: 0 to 13,000' (0 to 3,962 m) mean sea level
- Relative humidity: 5% to 95% non-condensing

Compliance and Certifications

- FCC Part 15
- CSA Safety Listing
- GR-63

i38HG Wireless Access Point

Local Network Interfaces

- Ethernet 10/100 with auto-MDIX (4-port RJ45)
- Wireless HyperG access point
- One HPNAv3.1 interface, twisted pair, utilizing CopperGate 3110 chipset

HyperG Wireless

- 802.11g wireless access point, backwards compatible with 802.11b
- 10 power settings available through gateway user interface, up to 400 mW, for both 802.11b and 802.11g, configurable via CMS
- WEP64, 128, WPA, 802.1x
- Support for multiple SSIDs
- Multiple access points to enhance reachability (up to 8); centrally managed by the outdoor unit

Standard Hardware Features

- Horizontal desktop placement, or optional vertical placement via provided stand
- External power supply

Compliance and Certifications

- FCC Part 15
- CSA Safety Listing
- TIA-968-A (Part 68)
- GR-63

Minimum Requirements

- All computers and devices to be connected to the wireless access point must have an Ethernet network interface card or 802.11b/g wireless adapter (Windows 98, 2000, ME, XP, or Vista only; Mac OS 8.6 to 9.x, and 10.2 or higher)

Visit us on the Web at 2Wire.com to learn more about our integrated broadband products, services, and solutions.



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