

ONE150

ONE150 Voice Enabled VDSL2/ADSL2+ and Optical Router



The ONE150 is a voice enabled VDSL2, ADSL2+ and optical router targeted to business customers desiring high bandwidth and a complete service. The ONE150 connects phones, faxes, PABX and LAN stations to the network. The ONE150 offers VDSL2 access, ADSL2+ fall back and Optical connectivity in a single box. The ADSL/VDSL copper interface offers symmetrical or asymmetrical bandwidth up to 100Mbps. An additional 100 Mbps SFP module guarantees direct optical connectivity to Metro-Ethernet networks. Thanks to its dual chip design it is capable of providing the best performance in both VDSL2 and ADSL2+ access networks. The router relies on the robust OneOS software, the OneAccess IP software designed for the delivery of enterprise-grade services such as VoIP, SIP PBX, Quality of Service, IP VPN and Wireless LAN. The product is available with different feature packs tailored to your needs.

HIGH SPEED DSL ACCESS

The SFP and ADSL/VDSL interfaces can be used to provide redundancy on the WAN uplink. Traffic is automatically routed to the available network. Alternatively the SFP module can be used to create an additional LAN port and can be used for a DMZ (De-Militarised Zone) on the customer's network.

RELIABLE VOICE SOLUTION

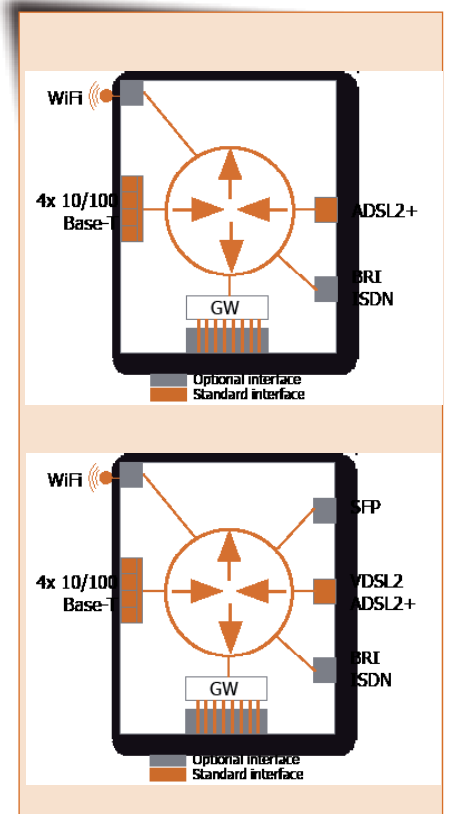
The ONE150 offers a complete and proven voice over packet solution. With various signalling protocols and flexible voice routing, the ONE150 is a secure choice in evolving networks. An internal SIP proxy manages calls from any voice device. The ONE150 can be turned into an universal voice demarcation line to connect legacy terminals (phones, PBX, ISDN terminals) as well as SIP devices (IP phones, IPBX, Wifi phones...). Delivering a high-quality VoIP network is a great challenge for carriers with many vendors and network equipment pieces being involved. Troubleshooting is accelerated by the ONE150, which embeds voice quality audit functions delivering an estimation of the Mean Opinion Score (MOS). It also features measurement probes delivering statistics about the network quality of service.

FULL SERVICE GATEWAY

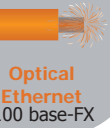
Based on the OneOS software the ONE150 is a full service gateway for businesses with data and voice needs. The ONE150 provides secured Internet access through a stateful inspection firewall. Employees working at home and personnel on the road can use the business applications based on central databases through IP VPNs. It provides best-in-class IP Quality of Service features including real-time processing of high priority, delay sensitive applications and guaranteed bandwidth for selected flows. Each of the 4 LAN ports can be reserved for a server. Specific policies can be applied per port. The optional wireless LAN gives access to different types of users. Several user authentication schemes and policy based routing can be applied so that a public hotspot service can be offered while securing the company's LAN from intrusions. The operating system also features advanced IP routing features for high-end VPN offers such as: IP SEC PKI, BGP routing with load sharing, virtual router redundancy...

ACCELERATED DEPLOYMENT AND SERVICE PROVISIONING

As all ONE products, the ONE150 uses the Industry standard Command Line Interface (CLI). This facilitates the configuration management for the service provider's technicians and integrates rapidly with automated tools. Several auto discovery and update features make the network roll-out straightforward. Once connected to the network the ONE150 automatically retrieves all customer specific information from the service provider's databases and thus becomes ready for the service. A set of embedded tools and service level indicators enable responsive customer support. On the other hand a web based user interface provides the customer with all the service information that is relevant to him. Thanks to its capability to be managed by the DSL forum standard TR069, it becomes very easy to upsell future services on this versatile platform.



VDSL2
ADSL2+



Optical
Ethernet
100 base-FX



Switch
4 ports
10/100 BT



FXS
up to 8 ports



BRI
up to 4 ports



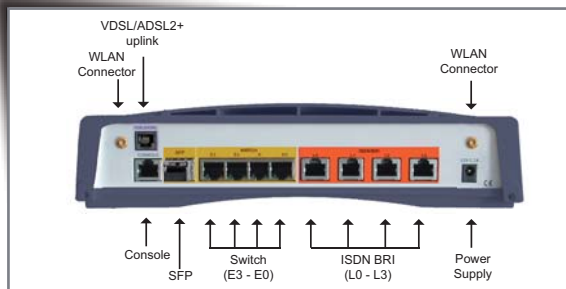
8
Voice
Channels



H.323
SIP
MGCP



WiFi
802.11b/g



Rear View*

ONE150 SPECIFICATIONS

Basic hardware

- 1x DSL (ADSL2+/VDSL) interface card or 1x ADSL2+ interface
- 1x 100 Mbps Ethernet SFP socket
- Fast Ethernet 4 port switch
- 1x console port
- Up to 4 BRI and up to 8 FXS voice ports (8 voice channels)
- IPsec encryption accelerator for DES, 3DES, AES

VDSL2/ADSL interface card and ADSL2+ interface

- Dual chip VDSL2 & ADSL2+
- VDSL2 according to G.993.2
- G.lite, G.DMT Annex A (ADSL over POTS)
- G.DMT Annex B (ADSL over ISDN, U-R2 compatible)
- ADSL2/2+ G.992.3 (including annex L - annex M) G.992.4, G.992.5
- RJ-11 connector
- ATM for ADSL
- EFM IEEE 802.3 2BASE-TL (aka 802.3ah) (for VDSL)
- ADSL/VDSL auto-sensing

SFP interface

- Universal SFP socket, 100 Mbps full duplex

Ethernet interfaces

- 10/100Mbps, half/full duplex with auto-sense
- Automatic cross-over

Wireless LAN (factory option)

- Dual mode IEEE 802.11b/g
- Two antennas
- WMM QoS
- Encryption options WEP, WPA 1.2 (TKIP) and WPA 2.0 (802.11i, AES-CCMP)
- Authentication options WPA-PSK (pre-shared key) and 802.1x with a RADIUS server (PEAP, EAP-SIM, EAP-TLS and EAP-TTLS)

BRI ports (factory option)

- 2 or 4 ports
- CTR3 / Euro-ISDN / Euro-numeris compliant, S0 and T0, NT or TE mode
- Point-to-point and multipoint
- Power source type 1 (2W / port)
- Fax / modem / unrestricted BC detection and transport

FXS ports (factory option)

- 2, 4 or 8 ports
- Loop start
- On-hook voltage: 35 V RMS
- Support of caller-id (DTMF and FSK)
- Support of fax and modem

Voice over IP

- SIP
- MGCP, H.323 version 4 (if required, please contact OneAccess Marketing)

Voice Call Routing

- Line Hunting
- Insertion / suppression of digits
- Local port switching
- Selection of voice processing
- Stateful SIP proxy

Fax and Modem over IP

- Fax: V.27ter, G3, Super G3, V.29
- T.38 fax over IP
- Modem detection

Bridging and VLANs

- Bridging and Integrated Routing and Bridging (IRB)
- VLAN tagging and untagging
- Multiple VLAN IDs per port
- 802.1p priority tagging, TOS/COS and COS/TOS mapping

Voice processing

- Echo cancellation: G.165/168 compliant, non-linear processing
- Voice compression: G.711 (a/μ law), G.726, G.729a, configurable packet length
- DTMF detection and generation
- Country specific tone generation and customisation
- Silence suppression and comfort noise generation
- MOS scoring evaluation

IP Addressing & Routing

- NAT/NAPT: static/dynamic NAT, NAPT, selective NAT, twice NAT
- NAT Application Level Gateway (ALG) for VOIP: SIP, H.323
- DHCP client, server, relay, DNS proxy
- Routing protocols: RIP v1/v2, OSPF v2, BGP v4
- Multicast Routing: PIM-SM and IGMP v2/v3
- Policy-Based Routing
- VRRP
- Server load balancing

IP Quality of Service

- IP Classification and priority (DiffServ)
- Class-Based Queuing (CBQ), CB-WFQ on LAN/WAN interfaces
- Low Latency Queuing, fragmentation and interleaving
- Policing and remarking
- RED, WRED, ECN

Security

- Stateful packet inspection firewall
- Standard and extended access lists
- Session monitoring and limiting
- Configurable timers per port and application
- All firewall log messages can be buffered, viewed or sent to a syslog server

IP VPNs

- Tunnels: IPsec, GRE, IPIP, L2TP
- IPsec encryption: AES, DES, 3DES*
- IPsec tunnel and transport mode: IKE and PKI, AH and ESP with SHA1 and MD-5 hashing
- UDP-based encapsulation for NAT traversal
- IKE with pre-shared secret, symmetrical or client-server mode, or X.509 certificate
- Perfect Forward Secrecy
- DNS server update protocol: DynDNS

ATM (for ADSL interface)

- Up to 8 PVCs
- OAM-F5 (send/receive): loopback, continuity check
- Shaping: UBR, VBR-NRT, VBR-RT, CBR
- Encapsulations (LLC or Mux): IP, IPoE, PPP, PPPoE

EFM (for VDSL interface)

- IEEE 802.3 2BASE-TL (aka 802.3ah)
- OAM IEEE 802.3 chapter 57

PPP

- PPP over ATM, PPP over Ethernet (PPPoE) on Ethernet, EFM (VDSL2) and ATM (ADSL2+) interfaces
- Automatic IP address assignment
- MLPPP bonding with fragmentation and interleaving
- PAP/CHAP authentication
- IPCP subnet mask
- MAC address based authentication

Management

- Industry standard Command Line Interface (CLI)
- Web-based GUI for LAN, WLAN and IBC settings by end-users (can be turned off)
- Auto-provisioning via HTTP auto-update protocol or CWMP (TR-069)
- SNMP V1/V2C/V3
- Support of user privileges
- File upload/download via FTP/TFTP
- QoS measurement probe
- Traceroute, ping, extended ping
- User authentication via RADIUS or TACACS+
- RADIUS accounting
- Global statistics screens (console, web-based)
- Event and trace buffering
- Syslog client
- Flow capture and decoding

Extra Software Options

- IBC Call Manager (Full featured soft-PBX)
- X.31/X.25 over TCP/IP
- Wireless access point controller

Dimensions

- Desktop, wall mountable
- W x H x D: 270 x 50 x 145 mm; Weight: 1,0 kg

*Rear view depends on the router configuration

NOTE: SFP and VDSL available soon.