

ONE200

Versatile VoDSL, VoIP Access Router



The ONE200 multi-service router delivers advanced voice and IP services to small to medium-size branch offices. The device is available with digital and analog telephony interfaces for connectivity using CES, VMOA, VTOA or VoIP. In addition to voice service over DSL, the device features powerful router functions including Quality of Service (QoS) and secure access control. The ONE200 embeds a suite of tools to more efficiently deploy, manage and supervise service delivery. Versatile and easy to operate, the ONE200 lowers Total Cost of Ownership (TCO), and creates value for both carriers and businesses delivering bundled voice and data.

Uplink
ADSL
G.SHDSL 2/4w
E1/T1
Serial

Uplink
Ethernet
10/100 BT

Switch
4 ports
10/100BT

Serial
V.28 - 2 ports
PSTN
V.90 modem

FXS
up to 8 ports

BRI
up to 8 ports

PRI
up to 2 ports
16 ch

H.323
SIP MGCP

FLEXIBLE DESIGN FOR FASTER, NEW SERVICE DELIVERY

The ONE200 is available with a SHDSL/SDSL interface that provides symmetrical speeds from 192 Kbps up to 2.3 Mbps, and is well adapted to the traffic profile for voice and information exchange between businesses. A fourwire SHDSL interface increases reach and throughput. Alternatively, an ADSL interface is used as an uplink. Combining ADSL, SDSL and SHDSL with extended reach, the device expands the potential customer base and leverages existing xDSL coverage. Also supporting multiple Ethernet, E1, serial and ISDN interfaces, the ONE200 offers numerous options for data connectivity.

For adaptation in various customer environments analog or digital (BRI, PRI) voice interfaces are available for connectivity with either phones or PBX. Whether the ONE200 is used with ATM or IP-based networks, the device easily adapts to the network infrastructure. For transparent E1 Leased Line service, the ONE200 offers Circuit Emulation Service (CES) over xDSL/ATM.

When using more bandwidth efficient technologies (such as VMOA-145 and VTOA-113), carriers provide voice over DSL and deliver increased throughput for data and Internet access. Alternatively, voice over IP is used by carriers using a Next Generation IP architecture, or by corporations to leverage their IP/VPN. Uniting multiple technologies, the ONE200 is the result of OneAccess long-held expertise in voice processing and signaling, which guarantees by design, high voice quality and interoperability. With various options for delivery of voice, the ONE200 is a secure choice in evolving networks.

In addition to voice and IP, the ONE200 optionally bundles legacy traffic over a single uplink. The device connects a legacy CPE with traffic from the CPE bridged over ATM. The xDSL access is thus highly optimised by sharing resources for voice, data and IP. The total solution lowers operational costs by omitting the need for a dedicated CPE Leased Line.

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FEATURE-RICH IP SERVICE

Broadband DSL access supplies a permanent, high-speed connection to the data network and enables new bandwidth intensive applications such as video-streaming and host-based interactive exchange. To deliver differentiated quality for these applications, the ONE200 features enhanced Quality of Service (QoS) to classify, condition and schedule traffic flows. Congestion is avoided and latency is controlled. Compatible with the latest advances in backbone QoS, the features enable carriers and businesses to take full advantage of new IP/MPLS networks.

While maintaining high quality and fast access is beneficial to the user experience, it is also important that the risk associated with permanent access be minimized by advanced access control. The ONE200 also provides solid protection for LAN users and applications by individually monitoring the session flows with outside hosts. Thus, the robust firewall performs packet content analysis and context-based control to prevent unauthorised access and Denial of Service (DoS) attacks. Powerful NAT/NAPT and DHCP functions are also integrated for eased management and protection of LAN stations.

SUPERIOR MANAGEMENT FACILITIES

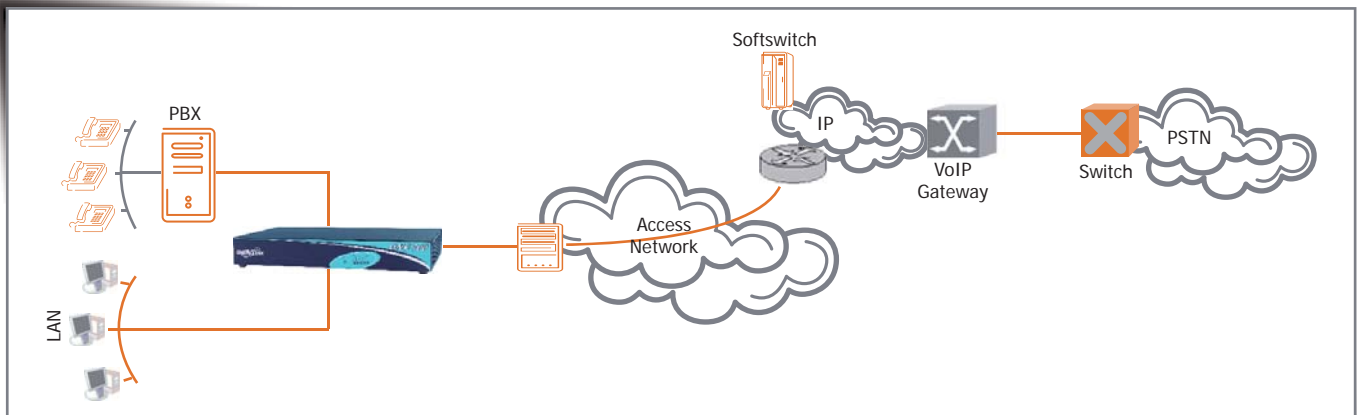
Designed for wide-scale deployment, the ONE200 software streamlines and accelerates network operations. Deployment of multiple devices is eased with automated replication of device configuration and a set of auto-discovery functions. For efficiency, the device can be remotely managed and accessed securely from the Network Operation Center to perform diagnostics and performance analysis. A set of embedded tools and service level indicators enable more responsive customer support and virtually eliminate the need for costly on-site assistance. As a result, the comprehensive management facilities of the ONE200 help service providers to control operational expenditures associated with deployment and maintenance.

With versatile hardware and software, the ONE200 offers valueadded options for delivery of high quality services and streamlines delivery of bundled voice and data solutions.



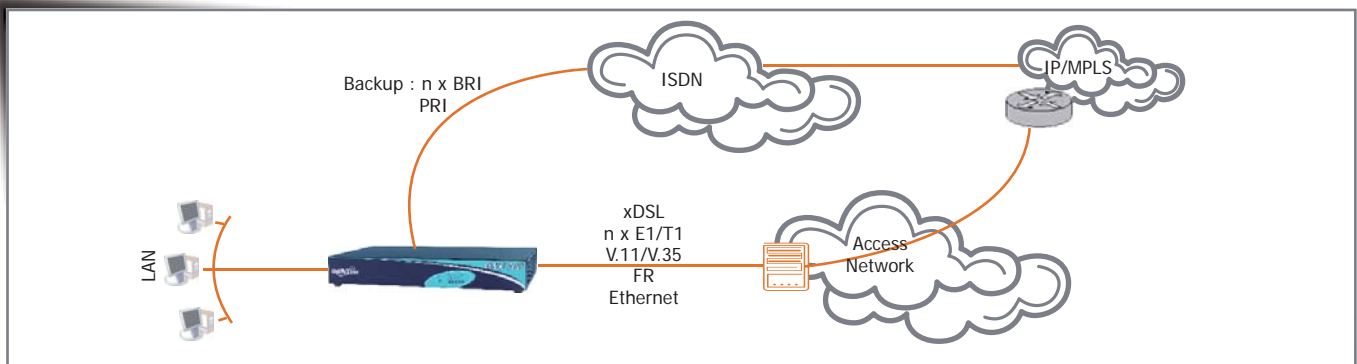
Application Cases

ONE200



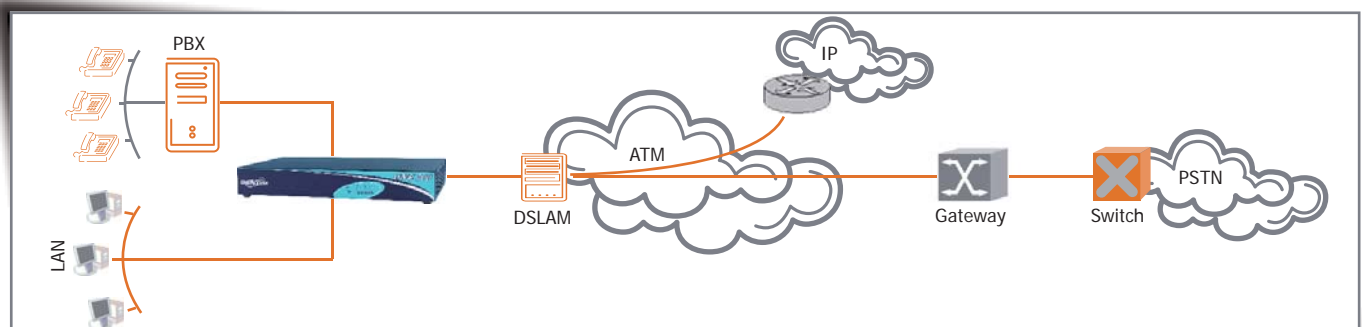
The ONE200 is a VoIP gateway, which manages the interworking between telephone equipment (FXS, BRI S0/T0, PRI) and a VoIP network. The device connects to any access network supporting IP services.

Voice Over IP



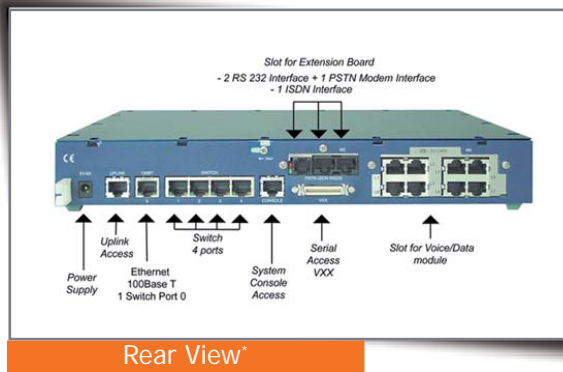
The multiple options of the ONE200 enables a connection to IP networks over a variety of access media: serial, TDM, ATM-based or xDSL. ISDN interfaces provide high availability for critical IP-based applications.

IP - VPN Access Router



The ONE200 enables the transport of voice over ATM networks using xDSL or E1/T1 ATM access. For BRI and FXS, the VMOA-145 standard is used to achieve voice over DSL. For PRI, different solutions are offered: with VMOA-145 and VTOA-113, voice is compressed and transported in AAL-2 frames. If the gateway does not support such standard, a third possibility is the use of circuit emulation (CES).

Voice Over DSL / CES



Rear View*

ONE200 SPECIFICATIONS

Product Architecture

Basic Configuration:

- 1 Ethernet base T 10/100 Mbps
- G.SHDSL/SDSL/ADSL modem or E1/T1 (FR-PPP**, ATM)
- 1 Console port
- 1 Slot for voice connectivity

Factory Options:

- 1 Slot for single S0
- 1 Serial WAN port V.11/V.35/V.28/V.36 DTE/DCE up to 8 Mbps
- 4 Port Ethernet 10/100 Mbps
- 4 Wires G.SHDSL

ISDN S0 Slot

- 1 S0 for IP services (dial-in and dial backup)

Voice Slot

- 1/2 E1/T1/PRI: up to 16 voice channels
- 4/8 BRI S0/T0: optional lifeline backup for S0
- 4/8 FXS

Voice over DSL

- VMOA-145, VTOA-113
- Fax, modem, DTMF detection and relay/transport
- G.726, G.711
- Voice activity detection
- G.165 / G.168 compliant echo cancellation

Voice over IP

- H.323 V4, SIP
- Fax, modem, DTMF detection and transport
- Unrestricted ISDN data, H.320 video pass-through
- G.711, G.729 (A)
- Voice activity detection and comfort noise generation
- G.165 / G.168 compliant echo cancellation

Circuit Emulation Service

- VTOA-78
- Full E1 support in CCS mode
- Structured/Unstructured
- Adaptive clock recovery, recovery from DSL or E1 clock source

Interworking Functions (Serial Port)

- FRF.5, FRF.8
- X.25 over TCP/IP

* Rear view depends on the router configuration

** Please check with OneAccess marketing for availability.

IP Services

- IP Classification and priority (DiffServ), CB-WFQ, WRED
- NAT/NAPT (N to M, two-way, twice NAT, application pass-through)
- DHCP client, server, relay
- DNS proxy
- Routing: static, RIP v2, BGP, OSPF, policy-based
- Tunneling: L2TP, GRE
- VRRP
- Server load balancing

Security

- IPsec
 - DES/3DES encryption
 - Tunnel and transport mode
 - IKE
 - AH, ESP with SHA1 and MD-5 hashing
- Firewall (filtering and content analysis)
- VLAN IEEE 802.1p Tagging

Management Services

- Performance agent
- CLI and SNMP (V.1, V.2, V.3) manageable
- TFTP for software, configuration and script downloading
- Statistics and event recording
- Remote ping, traceroute, traffic generator
- AAA/Radius, Tacacs+

PPP

- PPP over ATM (rfc 1483), PPPoE (rfc 2516)
- Automatic IP parameter assignment
- PAP/CHAP authentication
- MLPPP with BAP/BACP

FR

- QoS management
- LMI: T1.617, Q.933a
- FRF.12

ATM

- OAM F5
- UNI 3.1
- AAL-1, AAL-2, AAL-5
- VBR, UBR, CBR
- IPoA, PPPoA, PPPoEoA

Mechanical Data

- W x H x D: 20 x 5 x 30 cm
- Weight: 1,8 kg
- Compliant with European and US standards regarding safety, electromagnetic compatibility, immunity aspects and interfaces