



In partnership with



### ABOUT OneAccess

OneAccess designs and develops a range of world-class multi-service routers for over 140 global service provider customers including four of the top five operators in Europe. This makes OneAccess the number two branch office router solution provider in the world by volume.

With an international support network operating from offices in North America, Europe and Asia, OneAccess is able to work closely and cooperatively with all its clients throughout the development and roll-out phases for new services.

The ONE1520 is OneAccess's cost-effective high-performance data router, with an innovative network processor to boost performance, together with a high-speed Gigabit Ethernet copper uplink. It also includes optional xDSL and Wifi interfaces. Its state-of-the-art dual-core processing architecture has a dual purpose: it provides high-throughput IP routing alongside a concurrent WAN Optimization service.

### Accelerated VPN over Eutelsat Ka-Sat

The ONE1520 has been developed in cooperation with Eutelsat and is marketed to Eutelsat customers and partners as a package including NetBooster technology, OneAccess's traffic acceleration and optimization software. NetBooster's performance has been optimized and tuned to deliver the best user experience on the high-speed Eutelsat Ka-Sat network.

VPNs are often required to ensure communication confidentiality by transparently tunnelling traffic using private IP addresses over the satellite network. The ONE1520 software is designed in such a way that tunneling and encryption, to support VPN traffic, is compatible with NetBooster's acceleration and compression features.

### Flexible Backup and Offload over Satellite

The ONE1520 manages dual-uplink scenarios, whereby satellite access can serve as a primary, back-up or offload link. Thus techniques such as policy-based routing and route tracking are combined with the accelerated VPN to select which traffic is forwarded to the satellite and when. For instance, the two links can be configured such that different applications use the link offering the most suitable transmission characteristics.

### Enterprise-Class Services

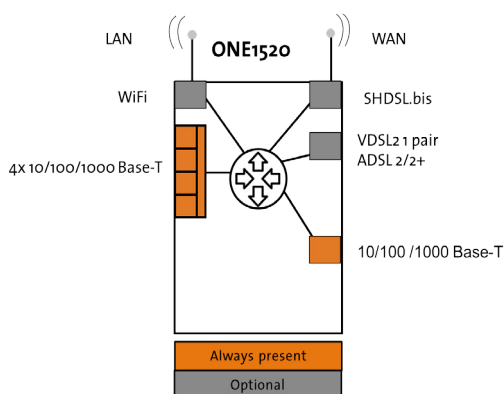
The ONE1520 has a single 1000Base-T copper interface as standard and an xDSL factory option: either G.SHDSL.bis Ethernet First Mile or an ADSL/VDSL2 interface. An integrated 4 port Gigabit Ethernet (GigE) switch supports IP-PBX, server and other LAN connections. In addition, the ONE1520 can be optionally specified with WiFi, supporting 802.11 b, g and n. The ONE1520 platform supports high-speed Layer 3 switching at next-generation broadband throughputs, with sophisticated QoS. In-built, standards-compliant IP VPN capabilities enable the seamless networking of enterprise branch offices.

### Reducing Total Cost of Ownership

As well as opening the door to new revenue opportunities, the ONE1520 helps achieve long-term cost savings. The opportunity to replace multiple dedicated CPEs (e.g. for security, Cloud performance and VoIP troubleshooting) with a single, flexible unit means reduced capital costs and simpler logistics and operations.

Moreover, the suite of provisioning tools within OneOS, the operating system running on the ONE series platforms, makes roll out simpler, less prone to error and significantly more cost-effective. For instance, auto-discovery options simplify initial set-ups. Once validated, tried and tested configurations can then be 'cloned' to new installations from the network operations centre (NOC).

An industry-standard CLI removes the need for technician training. A set of embedded tools and service level indicators – for example, voice quality audit functions including jitter monitoring and mean opinion score (MOS) statistics - make it simple to manage and assure the customer experience remotely, virtually removing the need for maintenance truck rolls.





### TECHNICAL FEATURES

#### General

- WAN Ethernet uplink
- G.SHDSL.bis or ADSL/VDSL2 WAN uplink (factory option)
- 4 port Gigabit Ethernet LAN switch
- Optional Wireless LAN

#### SHDSL Interface factory option

- G.SHDSL.bis ITU-T G.991.2 – 2 or 4 line pairs
- ATM and EFM
- Bonding based on EFM, SHDSL or ATM IMA
- TC-PAM 64/128 \*\*

#### LAN Interfaces

- Ethernet, Fast Ethernet, Gigabit Ethernet
- 4 port switch 10/100/1000BASE-T auto-sense
- Automatic cross-over

#### Wireless LAN (factory option)

- Dual mode IEEE 802.11b/g/n
- 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)

#### ADSL/VDSL2 Interface (factory option)

- VDSL G.993.2 annexes A&B - 1 line pairs
- EFM bonding
- Profiles 8, 12, 17 and 30 (1 pair)
- ADSL G.992.1, G992.3, G992.4, G992.5 - annexes A, B, J, L, M
- RJ11 Connector
- Mutually exclusive with SHDSL interface

#### Software Options

- NetAPM software license: applications performance reporting service
- NetControl: application QoS
- NetBooster: traffic compression with Deflate and Data Redundancy Elimination (requires SD card option) \*\*\*
- ASIP: Advanced Security and IP license

#### Traffic Optimization

- ACK suppression, return path optimization
- Selective Acknowledgment (SACK) mechanism (RFC 2018)
- Large TCP window
- Enhanced ramp up & congestion avoidance over high latency networks
- Up to 300 optimized TCP sessions (circa 30 users)
- HTTP Optimization

#### Console port

- RS232 – RJ-45 port

#### Performance

- LAN to LAN: 200Kpps

#### IP Addressing & Routing

- VRF-aware IPv4 and IPv6
- NAT/NAPT: static/dynamic NAT, NAPT, selective NAT, twice NAT, Application pass-through
- DHCP client, server, relay. IP helper addresses
- DNS proxy. DNS server update protocol: DynDNS
- Routing protocols: RIP v1/v2, OSPF v2, BGP v4
- Multicast Routing: PIM-SM and IGMP v2/v3
- Policy-Based Routing
- VRRP

#### IP Quality of Service

- IP Classification and priority (DiffServ)
- Class-Based Queuing (CBQ), CB-WFQ Hierarchical

Queuing Framework on LAN/WAN interfaces

- Low Latency Queuing, fragmentation and interleaving
- Policing and remarking
- RED, WRED, ECN

#### PPP

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

#### Security

- Firewall with stateful packet inspection
- 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
- Zone Based Firewall with ASIP\*

#### IP VPNs

- IPsec, GRE, IPIP, L2TP Client/Server
- 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
- Perfect Forward Secrecy
- up to 10 IPSEC tunnels
- Easy VPN Client, Easy VPN Server

#### Bridging and VLANs

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

#### Management

- Industry standard Command Line Interface (CLI)
- Telnet, SSH, HTTPS
- Web-based configurator for LAN and WLAN
- SNMP V1/V2C/V3
- Support of user privileges
- FTP/TFTP upload/download configuration and binaries
- IP SLA measurement probe
- Traceroute, ping, extended ping
- AAA with Radius and TACACS+
- Global statistics screens (console, web-based). Event and trace buffering
- Syslog client
- Flow capture and decoding

#### Dimensions

- Desktop, wall mountable
- W x H x D: 275 x 55 x 150 mm; Weight: 1.3 kg

#### Power supply

- External adapter 12V – 3A
- Voltage range: 110-230 VAC – 50/60 Hz
- Power consumption: <35 W

\* Subject to a separate license

\*\* Cf. Roadmap

\*\*\* Only OneAccess certified SD cards are supported