



- Secure Managed Services Data Router for businesses with 50 to 150 desktops
- Ethernet, Fibre, DSL and/or Mobile Network Access
- Gigabit Ethernet Switching, Wi-Fi and SBC Nano
- Industry Leading Price Performance
- Simple Deployment, Provisioning and Management
- Industry Standard CLI
- Lowest Power Consumption; No Fan



ABOUT OneAccess

OneAccess designs and develops a range of world-class multi-service routers for over 125 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.

Enterprise-Class Data Services for Small and Medium Businesses

With a very high performance routing engine, sophisticated IP Quality of Service, flexible IP VPNs, in-built stateful firewall and gigabit Ethernet LAN switching as standard, the ONE540 delivers multiple and concurrent, high performance managed data services cost effectively and seamlessly. Additional voice services can be added as an option. It enables fixed line operators, mobile operators and ISPs to flexibly satisfy the escalating demands for higher speed and throughput with innovative, agile, margin-rich data products. The ONE540 is scaled to provide 50 to 150 desks with sophisticated high speed data services, embedded security and high availability using fast Ethernet and Gigabit Ethernet connectivity over Fibre and copper based networks.

Wide Area and Local Area Network Agility

The ONE540 offers service providers the flexibility to support a wide variety of local and wide area access connectivity. For the access network, it supports symmetrical bandwidths up to 1Gbits/sec over multiple WAN access media. By default it has a 10/100/1000BASE T copper Ethernet interface. Optionally it has an SFP interface offering plug-in options for 1000Base-X and 100Base-X modules. An optional, second WAN interface enables service providers to offer a cost effective fail-over and high availability in support of stringent service level agreements or business critical applications. This is provided as a SHDSLbis (Ethernet First Mile) interface offering speeds of up to 22Mbps, a VDSL interface offering speeds up to 100Mbps and/or a 3G or 4G access. In addition to tri-band LTE connectivity, the ONE540 is backwards compatible with earlier standards like UMTS/ HSPA+ and EDGE/ GPRS and GSM. The mobile router supports 2x2 MIMO to maximize the throughput of the mobile data connection.

Servers, server rooms and local area networks are connected to each other and the wide area network via the in-built 4 port Gigabit Ethernet switch. Server load balancing ensures that local application performance is maintained. The ONE540 can optionally be specified with WiFi 802.11b/g/n. Several sophisticated authentication schemes are supported, and the WiFi network can even be configured as a public hotspot, without compromising the security of the private wireless or wired infrastructure. SBC Nano adds voice demarcation to ensure trouble free operation of SIP Centrex and SIP Trunking services. In addition faxes or modems can be directly connected to the ONE540 and make use of the SIP trunking service.

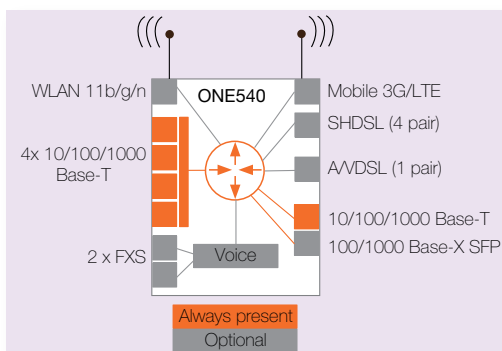
Reduced Total Cost of Ownership, Accelerated Provisioning

As well as opening the door to new revenue opportunities, the ONE540 helps achieve long term cost savings. As a service provider, the opportunity to replace multiple CPE with a single, flexible unit means reduced capital costs and simpler logistics and operations.

A suite of provisioning tools makes roll out simpler, less prone to error and more cost effective. For instance, auto discovery options simplify initial set-ups. Tried and tested configurations can then be 'cloned' to new installations from the network operations centre (NOC). The industry standard CLI removes the need for technician training.

The ONE540 supports mass customisation, enabling the provision of standardised service provider packages.

A set of embedded tools and service level indicators make it simple to manage and assure the customer experience remotely, virtually removing the need for onsite assistance.



ONE540 Series

Cloud Services Gateway & Multi-service Access Router



TECHNICAL FEATURES



General

- Copper Ethernet, Fibre, VDSL, SHDSL and/or 3G/4G WAN up links
- 4 port Gigabit Ethernet LAN switch
- Optional Wireless LAN

Gigabit Ethernet WAN Interface

- 1 UTP 10/100/1000 BASE-T with RJ45 Connector
- Optionally 1 SFP slot (factory option)
- SFP slot supports 100BASE-X and 1000BASE-X fibre modules, GPON ready**

SHDSL Interface (factory option)

- G.SHDSLbis ITU-T G.991.2 - 4 line pairs
- TC-PAM64/128 * support
- EFM & ATM
- Bonding based on EFM, SHDSL or ATM IMA
- 2 RJ-11 connectors

VDSL Interface (factory option)

- VDSL G.993.2 annexes A&B - 1 line pair
- Profiles 8, 12, 17 and 30
- ADSL G.992.1, G.992.3, G.992.4, G.992.5 - annexes A, B, J, L, M
- RJ11 connector

Wireless Radio Interface (factory option)

- Tri Band LTE (800, 900, 1800, 2100 and 2600 MHz) with MIMO 2 x 2, Peak Rate Downlink/Uplink 100/50 Mbps depending on carrier network support (4G versions only)
- Dual Band UMTS/HSPA+ (900 & 2100MHz)
- Tri band Edge/GPRS and GSM (900, 1800 & 1900MHz)
- 2 SMA connectors for mobile antenna

LAN Interfaces

- 4 port switch 10/100/1000BASE-T auto-sense
- Automatic cross-over
- RJ-45 connectors

Wireless LAN (factory option)

- Triple mode IEEE 802.11b/g/n
- Two detachable 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)

FXS ports (factory option)*

- 2 ports - Loop start / Ground start
- On-hook voltage: 35V RMS
- Support of caller-id (DTMF, ETSI FSK, Bellcore FSK)
- Support of fax and modem

Console port

- RS232 – RJ-45 port

Performance

- LAN to LAN: 200,000 pps
- Recommended WAN speed: 100 Mbps

IP Addressing & Routing

- 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
- 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

- 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

IP VPNs

- 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 keys & certificates
- Easy VPN Client & Easy VPN Server ***
- Get VPN ***

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

Voice over IP

- SIP gateway over UDP, TCP, TLS / SRTP
- Fax: V.27ter, G3, Super G3, V.29
- T.38 fax over IP
- Modem detection
- SBC Nano: e-SBC solution ***



TECHNICAL FEATURES

Voice processing

- Echo cancellation: G.165/168 compliant, non-linear processing
- Voice compression: G.711 (a/μ law), G.729(a/b/ab), configurable packet length
- DTMF detection and generation
- Country specific tone generation and customization
- Silence suppression and comfort noise generation
- RTP metrics (MOS score, jitter, packet loss ...)

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
- 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

Dimensions & Environmental

- Desktop, wall mountable
- Metal housing, max weight 1,5kg
- W x H x D: 275 x 50 x 145mm for versions without mobile up link
- W x H x D: 275 x 53 x 147mm for versions with mobile uplink
- Operating temperature: 0 - 45°C
- Humidity: 10 - 90% non condensing

Power supply

- External adapter 12V - 2A or 3A depending the version
- Voltage range: 90 - 264Vac, 50/60 Hz
- Power consumption: <35 W

* Contact Product Management for availability

** Contact Product Management for GPON availability

*** Subject to separate license