

DATASHEET

**ONE2501**

*The Premium-Performance Router for the Ultra-Connected Branch-Office*



The Ultra-Connected Branch-Office

The ONE2501 answers the needs of evolving broadband access with an increased throughput to fiber connectivity. The packet forwarding engine delivers up to 1Gbps bidirectional throughput with IMIX traffic and advanced services. The ONE2501 supports multiple fiber links and failover to LTE.

The ONE2501 enables the branch-office to be ultra-connected: not only does it connect the WAN at high-speed, but it maximizes WAN availability and throughput thanks to intelligent algorithms that select on a application level the optimal WAN path.

On the LAN side, up to 8 Gigabit Ethernet ports are available with optional Power over Ethernet to connect IP camera's or IP phones. Dual concurrent WiFi 11ac/a/b/g/n completes the LAN connectivity.



- Combines dual fiber and LTE for hybrid access and service continuity
- Up to 8 LAN ports, optional Power over Ethernet and WiFi
- Industry-standard CLI and NETCONF
- Flexible licensing options designed for VPN Business and SD-WAN services
- Compact and fanless design

Integration with Today's and Next Generation OSS

Industry-standard MIBs, TR-069 client and Command Line Interface (CLI) enable a swift integration with incumbent management systems and a short learning curve for operational teams. The OneAccess branded software OneOS6 provides one of the most complete NETCONF implementations on the market. NETCONF enables a gain in service agility for service providers, as the programming of the provisioning flows is greatly accelerated by the transactional nature of NETCONF. It has therefore driven OSS vendors to support this protocol to deal with Network Function Virtualization (NFV). And OneOS6 is ready today for a swift migration to new management platforms.

The Right Platform for the Right Service Level

Service providers need to address different business market segments, the challenge being to balance diverse technical requirements and service price. Often the preferred solution is to select CPEs from different vendors. However the end result may end up being an increase in costs to the service provider, due to heavy product qualification and IT integration cycles. This unfortunately undermines the ultimate goal of gaining service agility and saving costs.

Ekinops product design leverages common hardware and software functions in series of products. Service Providers thus save time during product evaluation and the common, complete management stack enables quick adaptation of IT tools, whenever a change in service offering is required.

SD-WAN Ready

Ekinops SD-WAN extends from the OneOS6 features and enhances them to deliver a feature-rich and full fledged SD-WAN solution. Additional functionalities embedded in the 2 variants of SD-WAN license (Xpress and Prime) enable Service Providers to transform their existing business VPN, delivering highest value from the same infrastructure. SD-WAN Xpress is a perfect fit for SMBs and companies in various verticals such as Retail, which, above all, look for a cost effective solution enabling them to quickly adopt digital transformation and leverage SaaS services (O365, Salesforce, etc.). SD-WAN Prime is tailor made for larger organizations where business applications are mission-critical and require real time optimization to grant the expected Quality of Experience.



## Technical Features



### General

- Dual combo Gigabit Ethernet WAN ports
- Optional LTE connectivity
- 4 or 8 UTP Gigabit Ethernet LAN ports
- Optional Power over Ethernet
- Optional WiFi 11ac wave2
- OneOS6 software

### Gigabit Ethernet WAN Interface

- 2 Fiber, Copper, configurable SFP/UTP
- SFP slot for fibre modules: 1000BASE-X, GPON ready
- UTP interface 10/100/1000 BASE-T with RJ-45 connector

### Wireless Radio Interface (factory option)

- Different variants available depending the region
- LTE with MIMO 2 x 2, Peak Rate Downlink/Uplink 150/50Mbps (cat4) or 300/50Mbps (cat6)
- UMTS/HSPA+
- Edge/GPRS & GSM
- 2 SMA connectors for mobile antenna
- Dual SIM card

### LAN Interfaces

- 10/100/1000BASE-T auto sense ports
- 4 ports
- Optionally 8 ports (factory option)
- Automatic cross-over
- RJ-45 connectors

### Power over Ethernet (factory option)

- Up to 120W power sourcing to connected LAN devices
- On versions with 8 LAN ports
- 4 PoE+ ports (30W), IEEE 802.3at and 4 PoE ports (15W), IEEE 802.3af
- Managed PoE(+) ports

### Wireless LAN (factory option)

- IEEE 802.11 b/g/n MIMO 2x2 (2.4 GHz)
- IEEE 802.11 a/n/ac MIMO 4x4 wave 2 (5 GHz)
- Dual concurrent radio
- 4 antennas with SMA connectors
- 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)

### Console Port

- RS232 – RJ-45 port

### Performance and Sizing

- 600 Mbps / 1 Gbps\* bidirectional routing performance with services (IMIX409)
- 2 Gbps bidirectional best effort routing performance
- 300 / 600\* Mbps bidirectional IPsec performance with services (IMIX410)
- 16 VRFs
- 50,000 IPv4 routes, 12,500 IPv6 routes
- 100,000 NAT, Firewall, DPI ... sessions

### IP Addressing & Routing

- IPv4 and IPv6
- NAT/NAPT: static/dynamic NAT, NAPT, selective NAT, ALGs
- DHCP client, server, relay
- DNS client, proxy
- Routing protocols: RIP v1/v2/ng, OSPF v2, BGP v4, BFD
- Multicast Routing: PIM-SMv1/v2, IGMP v2/v3
- Policy-Based Routing
- VRRP, VRF
- 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
- QoS measurement probe
- Deep Packet Inspection
- Advanced Deep Packet Inspection (SaaS applications) \*
- Netflow

### Security

- Standard and extended access lists
- Zone Based Firewall \*
- Session monitoring and limiting
- User authentication locally, via RADIUS and TACACS+
- TACACS+ Authorization and Accounting

### IP VPNs

- IPsec, GRE, IPIP, L2TPv2
- L2TPv3 \*
- IPsec encryption: AES, DES, 3DES
- IPsec ESP hashing: SHA-1, SHA-2 and MD5
- IKEv1 & IKEv2 with pre-shared keys & certificates
- IPsec tunnel and transport modes
- NAT traversal
- Easy VPN client / server \*
- Dynamic Virtual Tunnel interfaces \*
- IPsec Group Mode \*

## Technical Features



### Bridging and VLANs

- Bridging & Integrated Routing and Bridging (IRB)
- STP, RSTP, MSTP
- VLAN tagging and un-tagging
- Multiple VLAN IDs per port
- 802.1p priority tagging, ToS/CoS and CoS/ToS mapping
- Ethernet OAM
- 802.1x authentication

### ONeSBC (Session Border Controller)\*

- SIP trunking with demarcation – SIP Connect 1.1
- Hosted PBX solution
- SIP normalization
- SIP v2.0 over UDP/TCP/TLS and RTP/SRTP
- Codec negotiation with transparency: G.711a/u, G.729a, G.729ab, G.722, G.722.2, CES, H.263, H.264
- VQM (Voice Quality Monitoring)
- Up to 100 simultaneous centrex calls
- Up to 60 simultaneous trunking calls (no transcoding)

### Management

- Industry standard Command Line Interface (CLI)
- Telnet, SSH, HTTP(S) server
- NETCONF server compatible V1.0/V1.1
- Customizable web interface
- TR-069 provisioning
- SNMP V1/V2C/V3
- Support of user privileges
- FTP/TFTP, SFTP, SCP upload/download configuration and binaries
- Traceroute, ping
- Global statistics screens (console, web-based)
- Event and trace buffering
- Embedded Event Manager
- Telnet, SSHv2 client
- Syslog client
- Flow capture and decoding

### Dimensional and Environmental

- Desktop, wall mountable, rack mountable
- W x H x D: 300 x 44 x 150 mm (11.81 x 1.73 x 5.9 in)
- Weight: 1.3 kg (2.86 lb)
- Operating temperature: 0-45°C
- Humidity: 5-90% non condensing
- Optional brackets for 19" and ETSI racks
- Fanless, no noise

### Power Supply

- External adapter 12V – 3A, region dependent
- Voltage range: 110 - 230 Vac – 50/60 Hz
- Power consumption: <36 W
- Optional 24/48 Vdc powering
- Optional external 150W power supply for Power over Ethernet:
  - Input voltage 100 - 240Vac, 50-60Hz
  - Output voltage 54Vdc - 2.78A
  - Weight: 0.8kg

\* Subject to a license

About



Ekinops is a leading provider of open and fully interoperable Layer 1, 2 and 3 solutions to service providers around the world. Our programmable and highly scalable solutions enable the fast, flexible and cost-effective deployment of new services for both high-speed, high-capacity optical transport networks and virtualization-enabled managed enterprise services

Our product portfolio consists of three highly complementary product and service sets: Ekinops360, OneAccess and Compose.

- Ekinops360 provides optical transport solutions for metro, regional and long-distance networks with WDM for high-capacity point-to-point, ring and optical mesh architectures, and OTN for improved bandwidth utilization and efficient multi-service aggregation.
- OneAccess offers a wide choice of physical and virtualized deployment options for Layer 2 and Layer 3 access network functions.
- Compose supports service providers in making their networks software-defined with a variety of software management tools and services, including the scalable SD-WAN Xpress.

As service providers embrace SDN and NFV deployment models, Ekinops enables future-proofed deployment today, enabling operators to seamlessly migrate to an open, virtualized delivery model at a time of their choosing.

A global organization, with operations in 4 continents; Ekinops (EKI) - a public company traded on the Euronext Paris exchange - is headquartered in Lannion, France, and Ekinops Corp., a wholly-owned subsidiary, is incorporated in the USA.

**EKINOPS360**  
Dynamic Optical Transport

 **COMPOSE**

**ONEACCESS**