DATASHEET

ONE526

Hybrid Access Branch-Office Router for Converged Services

Integration with Today's and Next Generation OSS

OneOS6

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 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.

- Combines dual-pair VDSL, fiber and LTE for hybrid access and service continuity
- Ideal for 50 users, requiring a mix of ISDN, FXS and IP-based communication
- Optional state-of-the-art Wifi (dual-concurrent radio, 802.11ac)
- Certified Microsoft Teams Direct Routing
- Industry-standard CLI and NETCONF
- SD-WAN ready

The Ultra-Connected Branch-Office

The ONE526 meet the evolution of broadband access, with more commoditized fiber connectivity and higher-speed VDSL enabling by vectoring and bonding. The packet forwarding engine delivers premium performance to address these new frontiers in WAN throughputs, even when combining multiple WAN links. The ONE526 supports hybrid access scenarios such as fiber offload over VDSL or LTE.

The ONE526 enables the branch-office to be ultra-connected: not only it connects the WAN at high-speed, but it maximizes WAN availability and throughput with smart, application-aware path selection algorithms.

All-IP Migration Enabler

The VoIP software benefits from 10+ year continuous OneAccess development in its carrier-grade signaling and DSP technology. The software has been field-proven against many operators' SIP trunk flavors and PBX. In addition to providing numerous configuration options to adapt to local requirements, the voice software includes many built-in troubleshooting tools to quickly support end-users cost-effectively.

The optional eSBC license enables to connect IP phones for hosted communication services. Alternatively, the eSBC software enables the migration of end-customers upgrading their communication systems with a SIP trunk. In that case, the OneAccess technology ensures a transparent migration from a TDM-based PBX to SIP. Protecting the SIP network throughout this transition enables service providers to promote SIP trunking at lower cost and thus to protect customer loyalty or to reduce the churn.

The Right Platform for the Right Service Level

The modular design enables to fine tune the service offering from less demanding markets to enterprise needs. For that reason the ONE526 can provide advanced services such as: routing protocols and redundancy management, advanced security, application visibility and control

Hybrid Access Branch-Office Router

SD-WAN Ready

Ekinops SD-WAN extends from the OneOS6 features and enhances them to deliver a feature-rich and full fledge SD-WAN solution. Additional functionalities embedded in the SD-WAN Xpress license 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.).

Technical Features

ISDN Interfaces

- Up to 8 BRI; RJ45 connectors
- BRI NT (Network) / TE (Terminal)
- ISDN Permanent layer-2 & layer-1
- Line Hunting, Local port switching
- ISDN header insertion / suppression
- Clock Source: 5 ppm High Precision

Analog Interfaces

- Up to 12 FXS/1 FXO loop/ground start; RJ-11 connectors
- FXS Line Voltage Drop
- Direct call (automatic call after off-hook)
- Fully configurable ringing & tones
- FSK/DTMF caller-id presentation on POTS terminal interface
- FXO Loop-back & ground-start & far end disconnect supervision
- Line Hunting, Local port switching

VDSL2 Interface (factory option)

- VDSL G.993.2 annexes A & B - 1 or 2 line pair
- Profiles 8, 12, 17, 30 and 35b (17 when 2 pairs bonding)
- Vectoring-ready
- G.998.4 (G.INP)
- EFM IEEE 802.3ah (10PASS-TS)
- ADSL G.992.1, G992.3, G992.5 - annexes A, B, J, L, M
- ATM (8 PVCs, OAM, encapsulations IP, IPoE, PPP, PPPoE)
- RJ-11 connector

Gigabit Ethernet WAN Interface

- 1 Fiber / Copper, configurable SFP/UTP
- 1 SFP slot for fiber modules
- SFP slot supports 100 Base-X and 1000 Base-X fiber modules

LAN Interfaces

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

Wireless LAN (factory option)

- IEEE 802.11 b/g/n MIMO 3x3 (2.4 GHz)
- IEEE 802.11 a/n/ac MIMO 4x4 (5 GHz)
- Dual concurrent radio
- Internal 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)

Wireless Radio Interface (factory option)

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

Console Port

- RS232 – RJ-45 port

SIP

- Geo-localization: NAPTR, DNS-A, DNS-SRV
- SIP 2.0 over UDP/TCP/TLS and RTP/SRTP
- SIP Registration (basic, 3GPP method) for Trunking and Hosted solutions

Technical Features

- SIP Authentication
- DTMF in-band (RFC 2833) and out-band (SIP INFO)
- Support for SIP multi-trunks with different IP addresses, ports & settings
- SIP Session Timer according to RFC4028
- SIP redundancy, survivability & fail-over
- SIP monitoring via OPTIONS method
- Automatic call disconnection on no RTP flows
- Configurable automatic device reboot on SIP NOTIFY reception

ONeSBC (Session Border Controller)*

- SIP proxy for both Centrex (hosted) & B2BUA solutions
- Registration: Two-step & transparent
- Certified Microsoft Teams Direct Routing
- SIP Server Registration
- Local SIP Authentication (401/407)
- SIP Message Interception for Centrex solution
- Media negotiation: End-to-end, Per-leg
- CDR generation per SIP leg
- Media transcoding: G.711 (a/µ law), G.729(a/b/ab), G.722, AMR-WB*, OPUS, CES configurable
- Anti-tromboning feature
- Support for Video (H.262, H.263, H.264) codecs and more voice codecs (iLBC, GSM, G.726, ...) in transparency mode

Voice Routing

- Selection of voice processing
- Call routing, Pre and Post Routing
- Call backup
- Numbering plan management, Insertion & suppression of digits
- Call Admission and Control
- Gateway Intrusive mode
- Intrusive voice-port
- Dialer watch list
- Inline Test Calls
- Configurable Test Calls

VoIP Processing

- Voice compression: G.711 (a/µ law), G.729(a/b/ab), G.722, AMR-WB*, CES configurable
- Codecs with static & dynamic payload
- Packet length
- Echo cancellation: G.165/168 compliant, non-linear processing
- Adaptive jitter, packet loss concealment
- Country specific tone generation and customization
- Silence suppression and comfort noise generation
- Fax pass-through, T.38 ECM & Modem over IP
- VAD/CNG

Voice Quality

- RTCP-XR report
- RTP extended statistics (loss, jitter, voice quality diagnostics)
- MOS-LQ / MOS-CQ / R-factor calculation
- VQM (Voice Quality Monitoring) report
- Voice statistics

Interoperability

- SIP Header Manipulation
- SIP Connect 1.1 / 2.0
- Interworking ISDN/SIP

IP Addressing & Routing

- 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
- VRF-aware IPv4/IPv6 routing protocols: RIP v1/v2/ng, OSPF v2/v3, BGP v4, BFD
- Multicast Routing: PIM-SM and IGMP v2/v3
- Policy-Based Routing
- VRRP
- Server load balancing
- Dual-stack IPv4/IPv6

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

- SIP Anti-Flooding Mechanism
- Topology hiding
- SIP message filtering
- Address translation
- SIP Lawful Interception (outbound proxy)
- 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

- 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
- Perfect Forward Secrecy
- EZ VPN
- GET VPN (license)

Technical Features

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
- NETCONF server compatible V1.0/V1.1
- Web-based configurator for LAN and WLAN
- SNMP V1/V2C/V3
- Netflow v9
- 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

- W x H x D:
  - Plastic box: 360 x 59 x 221 (14.17 x 2.32 x 8.7 in)
  - Metal box: 360 x 41 x 212 (14.17 x 1.61 x 8.35 in)
- Weight: 6.61 lbs (3 Kg)

Power Supply

- External adapter 12V – 3A
- Voltage range: 110 - 230 Vac – 50/60 Hz
- Power consumption: <30 W

*   Subject to a license
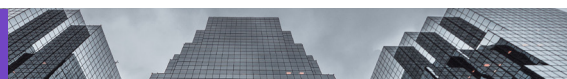
About

Ekinops is a leading provider of open, trusted and innovative network connectivity 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 as well as 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 and SixSq Edge-to-Cloud solutions.

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, Ekinops (EKI) - a public company traded on the Euronext Paris exchange - operates in 4 continents.