ONE421L4G

The Smart LTE Router

OneOS6

Deliver Agile High-Speed Services

As part of a complete product family enabling up to 10Gbps business data services, the ONE421L4G is designed to deliver VDSL and LTE data services up to 100Mbps for the SME market.

The ONE421L4G is a powerful router based on a compact form factor. Based on solid LTE and the latest VDSL chipset technology, the ONE421L4G assures market-leading interoperability and superior performance.

The ONE421L4G guarantees 100Mbps bi-directional routing performance (IMIX409) with real-world services. The WiFi interface includes two radio chipsets to manage concurrently WiFi in the 2.4 and 5GHz frequency bands. WiFi reach and throughput is significantly increased by the number of antennas: 802.11b/g/n is supported by a 3x3 antenna system, while the 802.11a/ac relies on 4x4 MIMO. The MU-MIMO brings an additional improvement in throughput by multiplexing data streams of multiple users when they are spatially separated. The Ethernet switch ensures non-blocking switching at Gigabit speed between LAN and WiFi users.

- LTE or VDSL with LTE for service continuity
- State-of-the-art WiFi ac
- Certified Microsoft Teams Direct Routing
- Industry standard CLI and NETCONF
- Flexible licensing options

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.

OneAccess 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.

The modular design enables to fine-tune the service offering for price sensitive markets. The ONE421L4G is built specifically when LTE is the main WAN link or LTE as the backup link of VDSL.

Technical Features

General

- LTE WAN
- 4 port Gigabit Ethernet LAN switch
- Console port
- OneOS6 software

VDSL2 Interface (factory option)

- VDSL G.993.2 annexes A & B
- 1 pair with profiles 8, 12, 17, 30 & 35b
- G.998.4 (G.INP)
- G.993.5 (G.vectoring)
- EFM IEEE 802.3ah (10PASS-TS)
- ADSL G.992.1, G992.3, G992.5 - annexes A, B, J, L, M
- ATM (4 PVCs, OAM, encapsulations IP, IPoE, PPP, PPPoE)
- RJ-11 connector

LAN Interfaces

- 10/100/1000BASE-T auto sense ports
- 4 ports
- 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

- Different variants available depending the region
- LTE with MIMO 2 x 2, Peak Rate Downlink/Uplink 150/50Mbps (cat4)
- UMTS/HSPA+
- Edge/GPRS & GSM
- Internal antennas

Console Port

- RS232 – RJ-45 port

Performance and Sizing

- 100 Mbps bidirectional routing performance with services (IMIX409)
- 800 Mbps best effort routing performance
- 30 Mbps bidirectional IPsec performance with services (IMIX410)

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 CBC
- IPsec ESP hashing: SHA-1 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 *

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

ONEACCESS

Technical Features

ONeSBC (Session Border Controller)*

- SIP trunking with demarcation – SIP Connect 1.1
- Hosted PBX solution
- Certified Microsoft Teams Direct Routing
- 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
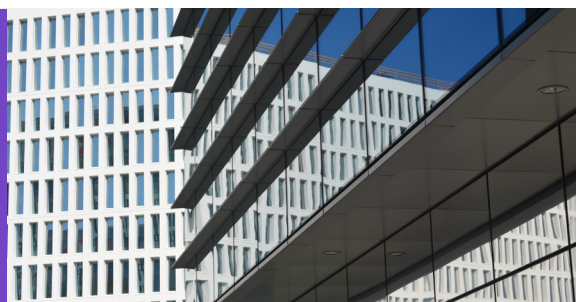- Flow capture and decoding

Dimensions

- W x H x D: 274 x 61 x 166 mm (10.8 x 2.4 x 6.5 in)
- Weight: 0.75 kg (1.65 lb)
- Plastic housing
- Operating temperature: 0-45°C
- Humidity: 5-90% non condensing

Power Supply

- External adapter 12V – 2A or 3A, region dependent
- Voltage range: 110 - 230 Vac – 50/60 Hz
- Optional 24/48Vdc powering
- Power consumption: <36 W

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