ONEACCESS

EKINOPS
Empowering Networks

DATASHEET

1322

A/VDSL2 Ethernet Access Device

The 1322 Ethernet Access Device (EAD) offers service providers a cost-effective ADSL2+/VDSL2 access solution and enables them to offer managed Ethernet services to their business customers. As Ethernet Demarcation Device it is possible to monitor and control Ethernet services end-to-end and to provide SLA reports. In addition to comprehensive layer-2 functionality the device also offers a layer-3 router implementation which makes it an ideal choice to deliver carrier Ethernet, Internet and IP services with one device. The equipment is interoperable with any standards-based carrier Ethernet equipment and can be integrated into any existing management environment.

The 1322 fully complies with the MEF.9 and MEF.14 requirements as defined by the Metro Ethernet Forum

ADSL2+/VDSL2 Access

The 1322 provides network operators the means to deliver advanced carrier Ethernet services to their business customers at a competitive cost. A combined ADSL2+/VDSL2 interface provides symmetrical or asymmetrical connectivity to the nearest DSLAM/MSAN concentrator. An independent Fast Ethernet interface can provide redundant connectivity over another access infrastructure and the 4-port GigE switch provides the interface to the user applications.

Extensive Feature Set

At the heart of this platform is a high performance Ethernet switch/router incorporating advanced Layer 2 and Layer 3 forwarding, security and Quality of Service capabilities as standard. The software-based switching and routing core offers a very high degree of flexibility when compared to hardware-based designs in terms of features, software maintenance and upgrades.

Metro Ethernet Services

As demarcation device the unit can deliver standard Ethernet services such as Ethernet Private Lines (EPL), Ethernet Virtual Private Lines (EVPL) and Ethernet Private LAN services (EPLAN). The 1322 fully complies with the MEF.9 and MEF.14 requirements as defined by the Metro Ethernet Forum.

OAM Monitoring

Monitoring quality and availability of every dataflow as part of the carrier Ethernet service gives a clear view on the status and the performance of the Ethernet service. The 1322 supports both point-to-point OAM monitoring (IEEE 802.3ah) and end-to-end performance monitoring (IEEE 802.1ag & ITU-T Y.1731) on all Ethernet interfaces.

Accelerated Deployment and Service Provisioning

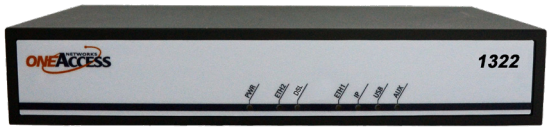
The OneAccess 1322 ADSL2+/VDSL2 EAD can be integrated in any managed environment and supports all the common management interfaces such as SNMP, Telnet, SSH, HTTP and HTTPS. In addition to these interfaces a number of management tools facilitate the integration of these access devices in a managed environment. These include:

- TMA GUI application
- A customisable Web-configuration utility
- A CLI for scripting and simple integration with provisioning and management systems
- Element and Inventory Management for control and monitoring of large access neworks

Quality Monitoring and Service Level Agreements

The 1322 keeps statistics of the last 15 minutes, 2 hours, 24 hours and 7 days. Selected sta- tistics can be stored over a longer period on the device for later retrieval and processing on a management platform. Traffic quality monitoring provides all the information needed to offer Service Level Agreement reports to the customer.

Technical Specifications



Basic Hardware

- Single pair ADSL/ADSL2/ADSL2+/VDSL2
- 1 console port V.24/V.28 with RJ-45 connector
- 10/100 Base-T Copper Ethernet interface
- 4 port GigE switch

A/VDSL2 Interfaces

- VDSL2 G993.2 - annex a and b
- Profiles 8, 12, 17 and 30
- ADSL G992.1, G992.3, G992.4, G992.5 - annex A/M and B/J
- RJ11 connector

Copper Ethernet Interfaces

- 4 port switch 10/100/1000BASE-T
- Half/full duplex with auto-sense, automatic cross-over
- Link status and activity LEDs

Optional Interface

- USB 2.0

Layer-2 Functionality

- IEEE 802.1D Transparent Bridging
- 10K MAC addresses per bridge group
- IEEE 802.1D Spanning Tree Bridging
- IEEE 802.1W Rapid Spanning Tree Bridging
- IEEE 802.1S Multiple Spanning Tree Bridging
- IEEE 802.1Q VLAN Tagging
- IEEE 802.1p QOS on Ethernet Level
- Basic and extended MAC filtering
- Ethertype translation
- VLAN Switching
- Port-based VLANs
- IEEE 802.1ad Provider Bridges and QinQ

Operations and Maintenance (OAM)

- OAM IEEE 802.3 chapter 57 (for EFM operation)
- OAM IEEE 802.1 ag & ITU-T Y.1731
- Built-in traffic generator and analyser (RFC2544)
- Loopbacks on ports and virtual interfaces

IP Functionality

- NAT/PAT
- DHCP client/relay/server
- DNS server/relay
- IGMPv1, v2
- Stateful Inspection Firewall
- Basic and Extended IP filtering
- DMZ
- ALG

IP Routing

- Static routing
- Policy based routing

Virtual Private Networks

- GRE tunnelling
- L2TP tunnelling
- Tunneling of Ethernet traffic over IP with GRE or L2TP tunnels
- IPSec (tunnel and transport mode)
- GRE or L2TP transport mode
- IKE and Manual Key Management
- AH and ESP Protocol
- DES, 3DES and AES encryption
- SHA-1 and MD5 Authentication

Quality of Service (QoS)

- Traffic Classification and Policing (inbound/outbound)
- Layer 2 classification based on MAC addresses/ranges, 802.1p, 802.1q, IP-TOS/DSCP, Ethertype (Protocol) and physical port
- Priority Queuing Layer 2 (8 levels, programmable)
- Layer 3 classification based on IP addresses/ranges, IP-TOS/DSCP, Protocol
- Priority Queuing Layer 2 (8 levels, programmable)
- RED, WRED
- Traffic Shaping CIR/EIR
- Hierarchical queuing and shaping
- Queuing mechanisms: SP, RR, WFQ, LDWFQ

Performance and Scalability

- Routing and bridging performance: 300 kpps
- Number of IPSEC, L2TP or GRE tunnels: 25

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Technical Specifications

Maintenance and Management Support

- Console port, CLI, Telnet, SSH
- Multilevel password protection, Radius/TACACS+ AAA
- HTTP, HTTPS, customised Web Interface
- FTP/TFTP upload/download configuration/firmware
- SNMPv1, v2, v3, MIB II, proprietary MIB
- Statistics 5min, 15min, 2h, 24h, 7 days
- IP traffic monitoring: roundtrip delay, jitter, loss
- Syslog, SNTP
- DHCP/BOOTP for automated provisioning
- PC-based maintenance tool
- Element management application
- Inventory management application

Dimensions

- Desktop, plastic housing, wall mountable
- W x H x D: 273 x 57 x 150 mm; Weight: max 0.65 kg

Power Supply

- External adapter 12V – 2A
- Power consumption: <14 W

About EKINOPS

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 Fast Network Virtualization

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