

The 1621 Ethernet Access Device (EAD) offers service providers a cost-effective fibre-optic access equipment allowing them to offer differentiated high-speed services to their business customers. As Ethernet Demarcation Device it is possible to monitor and control Ethernet services end-to-end. In addition to comprehensive layer-2 functionality the device also offers a full layer-3 router implementation which makes it an ideal choice to deliver Internet, Metro-Ethernet and IP VPN services with one device. The equipment is fully manageable and can be integrated into any managed service environment.



### Ethernet ACCESS DEVICES

## ABOUT OneAccess

OneAccess designs and develops a range of world-class Multi-Service Routers and Ethernet Access Devices for over 140 global service provider customers including four of the top five operators in Europe. The products are tailored to the services offered by telcos for their enterprise customers.

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.

## Fibre Access

The 1621 is a very cost-effective access device with a modular SFP interface to accommodate different types of fibre-optic modules.

Based on the MSA SFF-8472 standard, the 1621 can provide additional diagnostic and inventory information to assist network administrators with network maintenance. Diagnostic information includes fiber optic TX power, RX power, voltage and transceiver temperature.

## Extensive Feature Set

This access equipment has been designed to be used in a professional environment requiring advanced features such as native layer 2 support, advanced routing protocols (OSPF, BGP), advanced multilevel QoS support, several VPN implementations (IPSec, GRE, L2TP), backup scenarios and many management options.

This eliminates the need to install additional router equipment to deliver Internet or IP VPN services to business customers.

The software-based switching and routing core offers a very high degree of flexibility when compared to hardware-based designs in terms of maintenance and upgrades.

## Metro Ethernet Services

Ethernet features include many bridge cache options, STP, RSTP, MSTP, advanced VLAN features and Ethernet OAM.

Quality of Service is available both on IP and Ethernet packets with filtering, classification and colouring based on layer 2 and layer 3 characteristics, many priority scheduling options, policing and shaping.

The extensive feature set exceeds the requirements for an Ethernet Demarcation device by adding many layer 3 functionalities to the equipment.

The 1621 fully complies with the MEF.9 and MEF.14 requirements as defined by the Metro Ethernet Forum.

## Accelerated Deployment and Service Provisioning

The OneAccess 1621 Fibre 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 are available to 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 Management System for monitoring of large networks

## Quality monitoring and Service Level Agreements

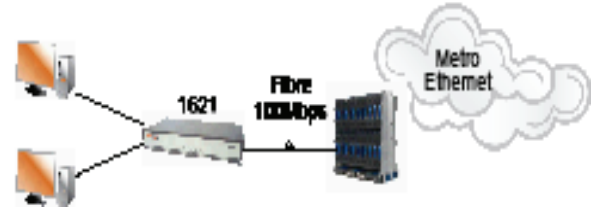
The 1621 keeps statistics of the last 2 hours, 24 hours and 7 days. Selected statistics can be stored over a longer period on the device for later retrieval and processing on a management platform. Traffic quality monitoring provides pro actively all the information to offer Service Level Agreements to the customer.

# 1621

## Fibre Ethernet Access Device



Point to Point



Connected to Metro Ethernet

## Technical Specifications

### Basic hardware

- 1 slot for Fast Ethernet fibre uplink (SFP)
- 4 port Fast Ethernet VLAN switch
- 1 console port V.24/V.28 with RJ-45 connector

### Fibre Optic Interface

- Type : SFP
- Standard SFP fibre modules: 100BASE-FX, 100BASE-LX20, 100BASE-BX20, other interfaces on request

### Copper Ethernet interfaces

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

### Layer-2 functionality

- IEEE 802.1D Transparent Bridging
- 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 MAC Level
- Basic and extended MAC filtering
- VLAN Switching
- Port-based VLANs
- IEEE 802.1ad Provider Bridges or QinQ
- OAM IEEE 802.3 chapter 57 (for EFM operation)
- OAM IEEE 802.1 ag & ITU-T Y.1731

### IP functionality

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

### IP Routing

- Static routing
- Policy based routing
- RIP v1 and v2, OSPF, BGP-4
- VRF (VPN Routing & Forwarding)
- VRRP (Virtual Router Redundancy Protocol)

### Virtual Private Networks

- GRE tunnelling
- L2TP tunnelling
- 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

### QoS

- Traffic Classification and Policing (inbound/outbound)
- Priority Queuing Layer 3 (8 levels)
- Priority Queuing Layer 2 (8 levels)
- Traffic Shaping CIR/EIR
- Queuing mechanisms: SP, RR, WFQ, LDWFQ

### Performance and scalability

- Routing and bridging performance: 250 Kpps
- Number of IPSEC, L2TP or GRE tunnels: 25
- Number of VLANs: 200
- Number of bridge-groups: 13

### Maintenance and management support

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

### Dimensions

- Desktop, metal housing, wall mountable
- W x H x D : 275 x 55 x 146 mm, weight: 1,3 Kg

### Power supply

- External adapter 12V – 2A
- Voltage range: 110-230 VAC – 50/60 Hz
- Power consumption: <24 W