## OAP402 Optical Access Point



The Avara OAP402 Optical Access Point is a highly reliable, feature rich and cost effective integrated access device with multiple broadband 10/100Base-T and narrowband Voice Frequency and Serial Data interfaces for use over single mode or multi mode optical fibre in point to point, linear or ring network topologies.



The Avara OAP402 is specifically designed to provide a compact solution for delivering switched Ethernet, Voice, VF and Serial data circuits over optical fibre.

The OAP402 provides four 10/100Base-T, Two Voice (FSX/FXO/VF), and One V.11 circuit or V.28

Each unit has two 100Mbps optical uplink interfaces. These can be configured for protected point-to-point, linear or ring topologies.

The maximum distance between nodes is 80km over single mode fibre and 3km over multimode fibre. If greater distances are required, higher power options are available, capable of supporting node spacings exceeding 100km.

The OAP402 delivers high performance Layer 2 Ethernet switching in a compact form factor. Tag based VLANs (802.1q) are supported allowing network segmentation without being restricted by physical connections. VLAN stacking is also supported allowing network designers more flexibility.

Advanced features such as rate limiting on the Ethernet ports is provided, preventing unpredictable network performance due to broadcast storms of malfunctioning equipment.

Those two voice interfaces are factory configured with either 4- wire VF, FXS or FXO Functionality. The FXS interface has a built-in ringer, and can be used to extend POTS circuits to remote locations in harsh environments (where a VOIP phone is not suitable).

When the units are configured in a ring topology, a switchover time of <50ms is achieved in the event of a fibre break. The rapid switchover allows calls-in-progress to be maintained in the event of a fibre break.

In addition to matching FXO to FXS interfaces for extending PABX POTS circuits, it also supports hotline functionality between two FXS interfaces.

The OAP402 can be managed locally via the console port or remotely using Telnet, SNMP or Avara's Web Server over a secure VLAN.

Full remote configuration and software download functionality reduces installation time and complexity.

A comprehensive set of SNMP traps and alarms are provided to assist fault management and isolation.

## **Technical Highlights**

- 4 x 10/100Base-T
- 2 x FSX or FXO or VF
- 1 x V.11 or V.28
- Single or Dual Fibre
- Multi-mode or Single-mode Fibre
- 802.1q, 802.1p
- Rate Limiting on Ethernet Ports
- Management via SNMP, Telnet, CLI
- -20 to -72 VDC Power Supply

## **Technical Specifications**



Model Order Code		Security	Dedicated VLAN, Password Protection, Management, ACL
<b>Mechanical</b> Height Depth Width	45mm 340mm 210mm Accessory Kit Available for 19" & 21" Rack Mounting	<b>Power</b> Supply Consumption	-20 to -72 VDC 10W
		Alarm Contacts	2x Relay outputs with current carrying capacity of 1A @ 24V
Customer Interfaces	4x 10/100Base-T (RJ45) (Switched) 4W - VF, FXO or FXS (RJ11) (In-built Ringer) 1x V.11/V.28	MTBF	65 Years
Voice		<b>Environmental</b> Operating Temperature Relative Humidity	-5 °C to +70 °C 5-90% (Non-condensing)
Serial Data		Standards	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.1p VLAN Tagging IEEE 802.1q Priority Queing IEEE 802.3x Flow Control RFC1157 SNMP RFC1213 MIB II RFC854 Telnet RFC783 TFTP S002 PSTN Interconnection S003 Customer Premises Switching S004 VF Performance EN55022 Class A Emissions EN60950 Safety 41003 Laser Safety AS/ACIF S016 EN55024 Immunity EN50082-2 Generic Immunity EN50082-2 Generic Immunity EN60825-1 Class 1 ITU-T X.21 ITU-T X.21 ITU-T V.11 ITU-T G.823 ITU-T Q.552 ITU-T K.20 ETS 300 019 -1-1 Storage ETS 300 019 -1-2 Operational ETS 300 019 -1-3 Transport
Optical Network Interfaces Single Fibre Short Haul Wavelength TX Power RX Sens Single Fibre Long Haul Wavelength TX Power RX Sens Dual Fibre Short Haul TX Power RX Sens Dual Fibre Long Haul TX Power RX Sens	1550/1310nm -8 to -14 dBm -31 dBm 1550/1310nm 0 to -8 dBm -34 dBm 1310nm 0 to -20 -32 dBm 1310nm 0 to -5 dBm -34 dBm		
Network Topology Protection Switch Time	P2P with Optional 1+1 Redundancy Linear Network, Ring Network < 50ms		
<b>Management</b> Local Remote	CLI via Console Telnet, SNMP, Web Server		



## **Head Office**

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