

The Avara sSIP30 facilitates migration from Analog voice to VoIP without decommissioning existing PDH systems. With Avara's FXS/E1 to SIP gateway, legacy FXS over TDM Systems can be converted to VoIP and interfaced to modern communications platforms such as Cisco's Unified Communications Manager with support for advanced features seamlessly. The sSIP30 is ideal for use in critical infrastructure networks where resilience to cyber threats is essential.

Power utilities, rail operators, oil and gas, mining, transportation and emergency services organizations have significant install bases of PDH equipment including Dynanet, FMX and Alcatel 1511 products.

One of the key functions provided by this equipment is voice grade telephone access particularly in sub-stations environments where hardened solutions are required.

Many such organizations are moving to VoIP based corporate telephone system and now need a way to provide telephone connectivity from the sub-stations to the corporate telephone systems.

As analogue telephones connected to the FXS ports on PDH equipment are currently available in the sub-stations, the preferred option is to convert these standard analogue interfaces to SIP and interface them to VoIP based Softswitches like CISCO's Unified Communications Manager over an Ethernet connection thereby minimizing deployment costs considerably.

Avara's sSIP30 product provides not only basic telephony features such as call establishment and ringing allowing existing analogue extensions to communicate with any internal or external telephone connected to the SIP Gateway, it also supports advanced features such as call Hold/Resume, Transfer, Forwarding, Parallel Ring, Group Pickup, Hunt Group, Common Bell Group, and Ad-hoc Conferencing as long as a DTMF capable handsets with a 16 character keypad is available at the site.

With the sSIP30, each analog handset gets a unique IP address and optionally can be placed on specified VLANs with selectable priority thus allowing network designers flexibility in creating their mission critical networks.

On the TDM side, the sSIP30 can terminate up to 30 voice channels from up to 4 E1 interfaces and convert them to SIP.

With a flexible signalling table, the sSIP30 has demonstrable interoperability with a range of 3rd party multiplexer systems using Channel Associated

Signalling (CAS) bits over E1 based communication links.

A full 64K cross connect is available on board to perform grooming of the TDM voice circuits allowing the sSIP30 to be located at more centrally and easily accessible sites.

The sSIP30 has also been designed to meet the environmental and susceptibility requirements for operating in harsh environments with respect to ESD, fast transients, susceptibility to radiated emissions, surge and dielectric strength making it an ideal choice for sub-station applications.

The sSIP30 can be managed remotely using SSHv2, Telnet, SNMP or a Web Server over secure VLAN.

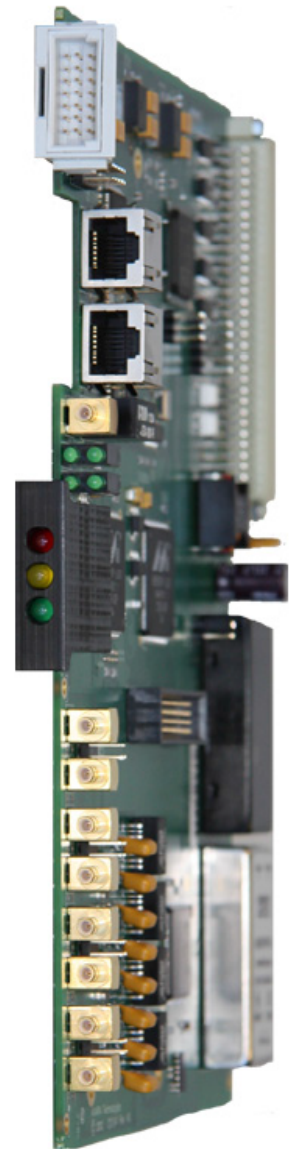
When AAA servers are available, RADIUS can be used for centralised user access management. Multiple servers are supported enabling administrators to implement their corporate security policies to meet statutory obligations associated with the protection of Critical Infrastructure against cyber threats.

Remote software download and unit configuration using TFTP & SFTP is available as is a comprehensive set of SNMP traps and alarms for fault management. Syslog can also be used for alarm and event logging to a remote server.

Technical Highlights

Key Features

- Parallel Ring
- Group Pick Up
- Hunt Group
- Call Forwarding
- Call hold
- Common Bell Group
- Ad-hoc Conferencing
- Ease of management
- Single point of configuration
- High MTBF
- Interoperable with third party multiplexer products including Nokia Dynanet, Siemens FMX & Alcatel 1511
- Interoperable with standard SIP based communications platforms including Cisco CUCM, Asterix & Alcatel Softswitch
- RADIUS for AAA support
- Alarm & Event logging via Syslog
- Manageable via Q1, Telnet, SSHv2, SNMP V1/V2C/V3 & ASPeCT
- -20 to +65 °C operation



sSIP30-75Ω

Technical Specifications



Model Order Code P61240.01: sSIP30-120 P61240.02: sSIP30-75 P61241.01: sSIP30X-120 P61241.02: sSIP30X-75	30xFXS, 2xFE, 120Ω E1 30xFXS, 2xFE, 75Ω E1 30xFXS, 6xFE, 120Ω E1 30xFXS, 6xFE, 75Ω E1	Security Data Interfaces Management	Dedicated VLAN Password Protection, Dedicated VLAN
Mechanical Height Depth Width	P61240.xx 233mm 160mm 25mm	P61241.xx 233mm 160mm 45mm	Power Power Supply Power Consumption
Interfaces E1 ports Ethernet (P61240.xx) Ethernet (P61241.xx)	4 x G.703/G.704 2M/Nx64K, Framed, Unframed, CRC4, 75/120Ω 2 x 10/100BASE-T single RJ45 connector switched 6 x 10/100BASE-T RJ45 connector switched	Alarm Reporting Front panel LED	Major (red) Minor (yellow) A, B and D alarms reported to bus for relay contact activation on PIU
		MTBF	65 Years
		Environmental Operating Temperature Relative Humidity	-20 °C to +65 °C 5-90% (Non-condensing)
Network Timing Node Synchronisation	Sync In/E1/Internal	Standards ITU-T V.11 ITU-T G.703 ITU-T G.704 ITU-T G.823 ITU-T G.732 ITU-T G.796 ITU-T G.797 AS/ACIF S016 RCM Mark CE Mark	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.1p VLAN Tagging IEEE 802.1q Priority Queuing IEEE 802.3x Flow Control RFC1157 SNMP RFC1213 MIB II RFC3410 SNMP v3 Framework RFC854 Telnet RFC4253 SSHv2 RFC783 TFTP RFC2865/2866 RADIUS RFC5424 Syslog EN55022 Class A Emissions EN60950 Safety EN55024 Immunity EN50082-2 Generic Immunity IEC 61850-3 Immunity ETS 300 019 -1-1 Operational ETS 300 019 -1-2 Storage ETS 300 019 -1-3 Transport
Switch Parameters Speed Auto negotiation Duplex MDI/MDIX Support IEEE 802.1p/q MAC Address Size Max Frame Size VLANs Supported Rate Limiting Traffic Shaping Priority Queues Per Output	10/100Base-T Yes Full/Half Yes Yes 8K 1632 Bytes 4096 128K, 256K, 512K, 1M, 2M, 4M, 8M Strict & Weighted Round Robin 4		
Management Local Remote	CLI via Console (RS-232) SSHv2, Telnet, SNMP V1/ V2C/V3, ASPeCT		



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