

SwitchplusIP®

Operator Interface Unit (OIU)



Powerful dedicated audio processing for advanced operators

Simplifying operator audio

The OIU is one of the SwitchplusIP® core building blocks and is the communications hub of the SwitchplusIP® operator position. It provides the operator with dedicated DSP audio processing resources that enable efficient support for a diverse range of audio equipment including mono and stereo headsets, handsets with PTT, boom mics, monitor speakers etc. It efficiently converts the audio from these devices to standards-based Voice over IP (VoIP) which can be streamed to any compatible device via the LAN. It also supports dual LAN interfaces ensuring that mission critical audio always gets through to its destination.

The OIU is generally used as part of a larger total C4i communications solution however can be delivered on its own to be used as part of an open standards communications system utilizing SIP or RTP protocols controlled via the C4i API.

Simplifying connection of operator audio equipment

The OIU provides direct connection interfacing for a range of audio devices including:

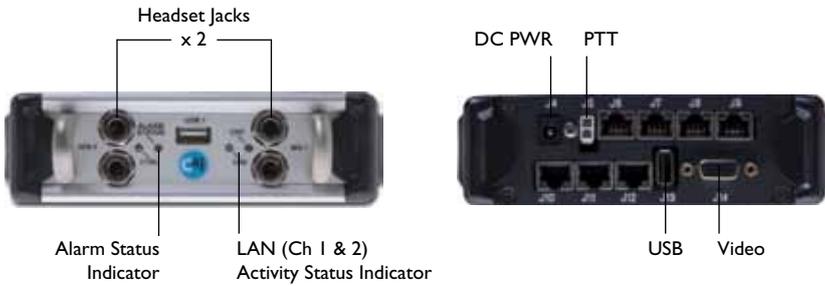
- Dual headsets - using either the industry standard dual 6 mm pin PJ7 for mono or 8-pin barrel for stereo audio programs;
- 2 mono or stereo headsets with in-line PTT;
- Handset with PTT;
- Monitor speaker/Voice recorder; and
- Foot PTT.

Interface to voice recorders are provided via a dedicated analogue output or via an RTP stream over the LAN.

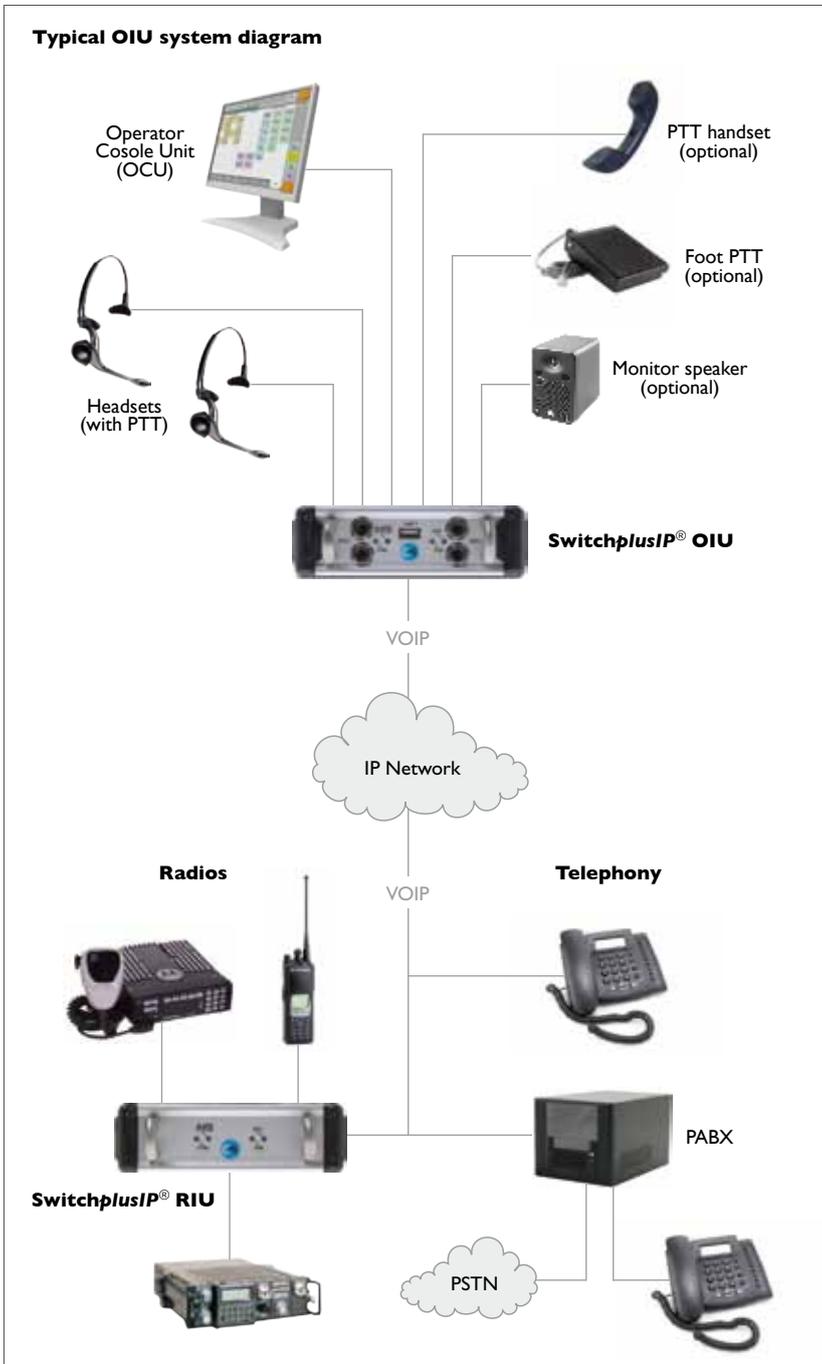
Simplifying Configuration

The OIU is extremely easy to configure. Using an intuitive web interface, users have access to the majority of the advanced facilities of the OIU.





Typical OIU system diagram



Specifications

Dimensions (W x H x D) 148 x 44 x 370 mm
5.75 x 1.75 x 14.5 in

Weight 2.1 kg / 4.6 lbs (without ETX module)
2.6 kg / 5.7 lbs (with ETX module)

Mounting Type Rack or shelf mountable; 1U high

Power Input (configuration dependant)

PoE Not available when ETX module installed in unit

DC 48VDC, 500 mA standard configuration **or**
24–60VDC extended DC range configuration

AC 110–240 VAC;
Requires use of AC–DC Power Adapter (P/N: 685-888-040)

Connection Interfaces

DC Power Circular socket DC10B

Headset/Handset (non-isolated) 2 x stereo/mono headset/handset (connectors provided on front & rear panels for flexibility of system integration)
1 x mono Headset/Handset on rear panel (RJ45)

Auxiliary Audio (isolated) 1 x mono audio for use with headset, handset, speaker; analog voice recorder

PTT Switch 1 x Molex 2-pin connector; dry closure

Ethernet (to System LAN) 2 x IEEE 802.3 10/100 Base-T;
2 x RJ45 socket (two Ethernet ports)

Ethernet (to Operator PC) 1 x IEEE 802.3 10/100 Base-T;
1 x RJ45 socket

USB 2 x USB 2.0; USB A profile

Serial RS232 @ standard rates up to 19.2 kbaud (via RJ45 connector)

Video RGB/VGA

Software Protocols FoIP, SIP, VoIP, RTP

Environmental

Operating Temperature -20°C to +60°C / -4°F to 140°F
(MIL-STD 810G – 501.4 & 502.4 (Op, Tablet))

Storage Temperature -40°C to +75°C / -40°F to 167°F
(MIL-STD 810G – 501.4 & 502.4 (Non-Op))

Vibration (Vehicle/Integrity) MIL-STD 810G – 514.5-C3
MIL-STD 810G – 514.6-C17

Transit Shock MIL-STD 810G – 516.5

EMI/EMC MIL-STD 461

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Simplifying communications