G/// Gateway

Background

Aculab's G/// gateway is a cost-effective signalling and media gateway for any telco or service provider function where voice network interworking is needed.

It can be readily used for many VoIP gateway purposes, enabling the delivery of IP-based, revenue generating, added value services to end users in legacy SS7, CAS and PRI networks.

GIII Gateway

Solving your interoperability problems

The GIII gateway is an adaptable, integrated 2U appliance that combines signalling and media interworking, protocol conversion, call routeing, and transcoding for supported protocols that include CAS, CAMA, Q.931-based ISDN PRI, SS7 and SIP. The GIII gateway provides users with enormous flexibility in configuration and usage, including many call routeing features. In short, the GIII gateway is a powerful and adaptable problem solver.

VoIP generation applications

The GIII gateway provides a dependable, deployment proven solution for interconnecting TDM networks and interworking to SIP networks and equipment. It can be easily configured for a variety of applications e.g., it can be deployed between public or private managed networks and hosted, IP-based service platforms; contact centre switches; IP-based emergency services functional elements; IP call managers; and PBXs with disparate TDM or IP interfaces.

Features

- Signalling and media gateway – SS7-to-SIP interworking
- Integrated call manager offering: parameter-based call routeing; numbering plans; number translation; and alternative or fallback routeing
- Protocol conversion – SIP, SS7, SIGTRAN and most ISDN and CAS networks – with simultaneous use of multiple protocols
- Dual chassis mode, dual-redundant SS7 signalling; 'A' or 'F' links
- Web browser UI offers intuitive access to all administrative functions
- Web-services APIs enable remote management of e.g., backups and CDR search

  SNMPv3, remote management, and 'lights out' control
- Hot swap PSUs and drives; RAID Level 1
- Multi-node clustering enables large system scaling, with cross-cluster administration from a single node log-in

Benefits

- Solves your call routeing and interworking problems
- A cost-effective alternative to expensive, bespoke solutions for service interconnection
- Extends the capability of existing TDM or IP infrastructure, helping you deliver added value, revenue generating services
- Optimised for SS7-to-SIP interworking in next generation emergency services (EENA/ NENA i3) architectures, including TTY-to-RTT transcoding
- A resilient and reliable, tried and tested solution that can be deployed worldwide
- Standards-based voice network interworking that gives you peace of mind

GIII Gateway

Technical summary

Configuration	GIII gateway – 2U chassis
System capacity	
IP channels	240(192); 480 (384); 720 (576); 960 (768)[1]
E1/T1 trunk options	8, 16, 24 or 32[1]
IP interfaces	
LAN protocol and connections – SIP, VoIP traffic, and OAM&P	10/100/1000 Mb BASE-T Ethernet; NIC teaming; 4 x RJ45
Protocols supported	SIP 2.0; TLS[2&3]; RTP; SRTP[2&3]; RTT; TCP; UDP – contact Aculab for further details
Voice codecs	G.711; G.726; G.729A/B – negotiated on a per call basis
TDM interfaces	
Network line interfaces	E1/T1; software selectable; 75R, 100R, or 120R terminations
Network connection	4 x RJ45 per card; adapter cables supplied (8 E1/T1 and above); BNC via adaptor
SS7 (call control) support	UK, ITU-T, and ANSI ISUP[4]; MTP; SIGTRAN M3UA Fully or quasi-associated ('A' or 'F' links) Up to 64 links per card; load sharing CIC/timeslot blocking facility
Legacy ISDN and CAS protocols supported	A wide range of protocols including MFC R2; T1RBS; TI CAMA; NI-2; DMS 100; TR41459, Euro ISDN, BT DASS2, DPNSS and QSIG – contact Aculab for further details
Management	
User administration	Unified, Web browser-based UI; single node log-in for any/all nodes in a cluster
Configuration 'roles'	Stored configurations (incl. IP addressing) can be applied to any node[5]
Remote management	Web-services APIs; SNMPv3; remote KVM; 'lights out' control
IP addresses	3 (total) needed
Call data records (CDRs)	Searchable, database driven CDRs
SYSLOG	Consolidated, cross-cluster repository facilitates reporting and debugging
Physical and environmental	
Chassis	Open industry standard, 2U 19" rack mountable, PCI Express (PCIe); NEBS compliant
Chassis dimensions - width, height, depth	444mm x 87.3mm x 684mm[6]
Weight	24 kg[7]
Peripherals available	Keyboard and mouse
Power supply	230/115V AC (50/60Hz); -48 V DC; dual-redundant hot swappable
Hot-swap RAID Level 1	Standard
Power consumption / heat dissipation	300W / 1024BTU/hr[7]
Airflow path	Front (intake) to rear (exhaust)
Operating environment	Operating temperature (ambient)[8]: 10° C to 35° C
	Humidity: 10-80% RH, non-condensing, over temperature range 10° C to 35° C
EMC standard	EN55032/55024; FCC CFR 47: Part 15: B
Safety standard	EN60950; UL60950
RoHS	Complies with RoHS Directive 2011/65/EU

1. Restrictions apply regarding specific configurations and available modules; contact your Account Manager for details.
2. Export restrictions apply to systems with 'Strong Encryption' – contact your Account Manager for further details.
3. TLS/SRTP available for SIP calls only.
4. For availability of other national and international variants, please contact your Account Manager.
5. GIII gateway backups can be ported to configure an equivalent GIII gateway – contact Aculab Support for advice
6. For overall dimensions, allow additional depth for front panel handles and cables at rear.
7. Figures are for the maximum system configuration.
8. Figures given are for continuous operation.

For more information, please contact your Account Manager or view our website:
www.aculab.com

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About Aculab

Aculab is an innovative company that offers deployment proven technology for any telecoms related application. Its enabling technology serves the evolving needs of automated and interactive systems, whether on-premise, data centre hosted, or cloud-based.

Over 1000 customers in more than 80 countries worldwide, including developers, integrators, and solutions and service providers, have adopted Aculab's technology for a wide variety of business critical services and solutions.

Aculab offers development APIs for voice, data, fax and SMS, on hardware, software and cloud-based platforms, giving a choice between capital investment and cost-effective, 'pay as you go' alternatives.

For more information

To learn more about Aculab Cloud and Aculab's extensive telephony solutions visit:

www.aculab.com

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