

Dialogic® IMG 1010 Integrated Media Gateway

Dialogic® IMG 1010 Integrated Media Gateway is a carrier-grade VoIP gateway that supports both media and signaling in a single chassis. It allows service providers to add new telephony services quickly, and gives them a clear migration path to an all-IP network.

The IMG 1010 provides any-to-any voice network connectivity and can deliver SIP services into legacy PRI, CAS, and SS7 networks, as well as IP-to-IP transcoding for network peering applications. Its compact 1U high-density design, integrated SS7 termination across multiple gateways, GUI-based management, and software licensing for in-service capacity expansion make the IMG 1010 an excellent option for VoIP.

The IMG 1010 also features the Dialogic® Programmable Protocol Language (PPL), which allows rapid implementation of SS7 ISUP variants and other signaling changes.



Features	Benefits
Simultaneous support for PRI and SS7 signaling and SIP and H.323	Provides a flexible, cost-effective platform that can evolve from TDM-IP to all IP
SS7 signaling, call routing, call translation, and IP transcoding supported in a single chassis	Can reduce complexity and administrative overhead for VoIP services, and allows on-the-fly voice coder conversion
Supports up to 1024 channels in a 1U chassis	Allows easy scalability from 96 to 1024 channels in a small footprint
Wireline and wireless support, including ENUM	Enables fast connection time and lower phone charges because callers can connect to each other directly without using the PSTN
NEBS 3 carrier-grade design uses independent network interfaces to separate transport, signaling, and OAM&P	Provides high reliability and service availability
Works with load balancers	Optimizes distribution of SIP traffic and improves scalability and fault tolerance

Technical Specifications

Routing Features

Call routing and translation based on ANI, DNIS, and Nature of Address, Time of Day, Day of Week/Year

Pre- and post-routing digit translations

Multiple routing algorithms per trunk group or groups of trunks for IP-to-TDM and IP-to-IP, both A-law and μ -law conversions

Pre-call announcement (branding)

IP Bearer Features

Coder support: AMR, iLBC, G.711, G.723.1, G.729 A/B, G.729 E/G

Echo cancellation: G.168 128ms tail length

Voice activity detection

Comfort noise generation

T.38 Real Time Fax

Fax/modem bypass

Digit transmission via RFC 2833 (SIP and H.323) or H.245 UII (H.323)

Symmetric NAT Traversal

OAM&P

Centralized Element Management System

GUI-based system allows monitoring and provisioning of up to 32 gateways

Centralized routing engine simultaneously configures gateways in the network

Radius (billing, authentication, prepaid)

Local time zone support

SNMP

MIBs: MIB-2, Interface, Alarms, DSO, DS1, and DS3

MRTG

Power Requirements

-48 VDC with voltage range (-40 V to -60 V)

90 - 240 VAC 50/60 Hz with voltage range (90 V to 240 V)

Power consumption: 90 W

Physical Specifications

Dimensions: 1.72 in. high (43.7 mm) x 17.25 in. wide (438.2 mm) x 19.00 in. deep (482.6 mm)

Weight: 18 lb (8.1 kg)

Resiliency

SS7 Signaling: 1+1 active/standby redundancy

Virtual IP addresses for SIP load balancing (via third party server)

Capacity

96 - 768 TDM channels per 1U shelf (scalable from 3 E1/ 4 T1 to 24 E1 / 32 T1)

96 - 1024 VoIP channels per 1U shelf

I/O Interfaces

Telephony: T1 and E1, or DS3

IP: 4 - Fast Ethernet for control and signaling, 2 - Gigabit Ethernet for VoIP payload

T1/E1s for timing (BITS clock) and signaling

Loop timing via any telephony port

Technical Specifications (cont.)

TDM Signaling Protocols

ISDN PRI (FAS and NFAS): NI2, Euro ISDN, DMS 250, 5ESS, JATE/Japan INS-NET1500

T1/E1 CAS (FGB, FGD and MFR2)

Q.699 ISDN to SS7 mapping

SS7/C7 ISUP: ITU and ANSI variants supported through the Dialogic® Programmable Protocol Language (PPL)

64 SS7 links (A-links and F-Links supported)

IP Signaling Protocols

H.323 v2

H.323 Keep Alive

RFC 2327 Session Description Protocol (SDP)

RFC 2976 SIP Info for digit transmission (#)

RFC 3261 SIP Basic

RFC 3262 SIP PRACK

RFC 3264 SDP Offer/Answer Model

RFC 3265 SIP Subscribe/Notify

RFC 3311 SIP Update

RFC 3325 Asserted Identity

RFC 3326 SIP Reason Header

RFC 3372 SIP for Telephones (SIP-T)

RFC 3398 ISUP/SIP Mapping

RFC 3578 ISUP Overlap Signaling to SIP

RFC 3581 Symmetric Response Routing

RFC 3666 SIP to PSTN Call Flows

RFC 3725 Third Party Call Control for SIP

RFC 4028 SIP Session Timer

SIP 3xx Gateway Responses

SIP Diversion Header

SIP Trunk Group IDs

SIP Coder Negotiation

SIP Busy Out

QoS

Adaptive jitter buffer

Packet loss compensation

Configurable Type of Service (ToS) fields for packet prioritization and routing

Approvals and Compliance

EMC/EMI

USA/Canada: FCC Part 15, ICES-003

European Union: EN55022: 1998/A1:2000/A2:2003, EN55024: 1998/A1:2000/A2:2003, EN300386: 2001 Ver. 1.3.3

Australia/New Zealand: AS/NZS CISPR 22:2002

Japan: VCCI

Safety

USA/Canada: CSA-C22.2 No. 60950-1-03

European Union: EN60950-1

Australia/New Zealand: AS/NZS 60950.1:2003

Technical Specifications (cont.)

Approvals and Compliance (cont.)

For information about RoHS compliance and global approvals, contact your Dialogic sales representative.

CB Scheme

International CB Scheme IEC 60950-1

Telecom Approvals

USA/Canada: FCC Part 68/IC CS03

European Union: TBR 4, 12, 13

Australia/New Zealand: AS/ACIF S-016 and S-038/TNZ Telepermit

Japan: JATE Green Book

Reliability/Warranty

Warranty information at <http://www.dialogic.com/warranties>

Estimated MTBF per Telcordia Method 1

AC power: 61,367 hours

DC power: 71,666 hours

To learn more, visit our site on the World Wide Web at <http://www.dialogic.com>

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