

## Dialogic 4000 4-port T1/E1 96/120 Channels +V.34 Fax/FoIP Media Gateway with Survivable Branch Appliance capabilities



Product Name: Dialogic 4000 4-port T1/E1 96/120 Channels +V.34 Fax/FoIP Media Gateway with Survivable Branch Appliance capabilities  
Manufacturer: -  
Model Number: 306-441

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The Dialogic® 4000 Media Gateways (DMG4000 Gateways) are integrated systems that can provide both local PSTN and voice endpoint connectivity at a branch office premise as well as base-level voice service continuity in the event that the corporate WAN becomes unavailable. The DMG4000 Gateways are standard rack-mount servers running the Windows Server®; 2008 R2 operating system. They support the Survivable Branch Appliance function that is part of the Microsoft®; Lync®; Server 2010 for unified communications. The Survivable Branch Appliance function allows branch offices to work effectively even if the WAN connection to the central site is lost. The ability to make voice calls, use email, and hold audio conferences continues to be available.

The Dialogic 4000 is a Microsoft Lync compatible gateway.

### Features

- Supports the Survivable Branch Appliance function of the Lync Server
- Available as a 1U rack mount integrated system supporting configurations from 8 channels (Analog or BRI) up to 96/120 channels (T1/E1)
- Redundant power supply, RAID 1 hard disk subsystem, and a failover and load balancing Ethernet network connection
- Enhanced gateway functionality
- Supports T.30 Fax Group 3 up to 33.6 kbps using T.38 real-time FoIP

### Benefits

- Provides branch office resiliency by maintaining branch user functionality and productivity during WAN outages
- Offers a range of product densities and interfaces for businesses of various sizes
- Delivered with features that enable high availability
- Allows for a common architecture, platform, and management interface for central site and branch deployments
- Offers a range of fax configurations to satisfy requirements for different fax channel densities and fax transmission speeds

**Field-Proven Technology in a Robust System Configuration** The DMG4000 Gateways contain field-proven Dialogic®; Diva®; Media Boards and Dialogic®; Diva®; SIPcontrol®; Software in addition to the Lync Server with its Survivable Branch Appliance function. These elements are integrated in a rugged 1U rack-mount server featuring a high-performance 64-bit Intel Xeon processor. The DMG4000 Gateways also offer dual Gigabit Ethernet interfaces for IP network connection, as well as a variety of options for interfacing to the PSTN or PBXs, including Analog, ISDN BRI, and E1/T1. In addition, the DMG4000 Gateways can be configured to support up to 120 channels of unified communications traffic. **Survivable Branch Appliance Functionality** The Survivable Branch Appliance function in the Lync Server included in DMG 4000 Gateways has the following components:

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- SIP Registrar and Proxy for normal and failover routing
- Mediation Server for communication between Registrar and IP-PSTN Gateway
- IP-PSTN Gateways for routing calls to the PSTN as an alternate transport in case of WAN outages or anomalies

The Survivable Branch Appliance function can support up to 1000 users. If a branch office's WAN connection to a central site becomes unavailable, the Survivable Branch Appliance enables branch users to continue to handle outside and inter-site calls via the PSTN, make intra-site calls, use voice mail, and connect with audio conferences via the PSTN. Enhanced Gateway Functionality DMG4000 Gateways can perform as enhanced gateways deployed in central locations along with the full Microsoft® Lync® Server suite, which includes front end servers and mediation server functions. Enhanced gateway functionality allows the DMG4000 Gateways to perform as a common gateway platform across an enterprise, providing the same architecture and management interfaces in central and branch locations. Fax Functionality and Third-Party Application Hosting In addition to the role of Survivable Branch Appliance for the Lync Server, DMG4000 Gateways can be used as high-density Fax over IP (FoIP) gateways, providing up to 120 channels of fax at V.34 (33.6 kbps) speed, depending on the license purchased. A DMG4000 Gateway can also host third-party applications written for Windows Server 2008, including fax server and IP-PBX software. A runtime version of the ESTOS Call Control Gateway (ECCG) is pre-loaded on each DMG4000 Gateway with five complimentary seat licenses for trial purposes. When hosted on a DMG4000 Gateway, this third-party application can provide remote call control functionality for existing PBX infrastructure (classic, hybrid, or pure VoIP). Technical Specifications Ports per unit

- Dialogic® DMG4008LSW Media Gateway: 8-port Analog FXO (8 channels)
- Dialogic® DMG4008BRI Media Gateway: 4-port ISDN BRI (8 channels)
- Dialogic® DMG4030DTI Media Gateway: 1-port T1/E1 (24/30 channels)
- Dialogic® DMG4060DTI Media Gateway: 2-port T1/E1 (48/60 channels)
- Dialogic® DMG4120DTI Media Gateway: 4-port T1/E1 (96/120 channels)

Server Type Dell R310

- Processor Intel Xeon 3430 (quad core processor running at 2.4 GHz)
- Memory 8 GB Dual Ranked UDIMM (1333 MHz)
- Hard disk subsystem 2 x 160 GB SATA in RAID 1
- Network interface 2 x 10/100/1000 Base-T Ethernet LAN ports

Protocol support

- Analog: Loopstart
- ISDN BRI: DSS1 (Euro-ISDN), NI-1, 5ESS, 1TR6, INS Net 64, VN3, CT1, QSIG
- E1 ISDN: ETSI-DSS1 (EuroISDN), INS-1500 (Japan), QSIG
- E1 CAS: MFR2
- T1 ISDN: NI-1, 4ESS, 5ESS, DMS100, QSIG
- T1 CAS: RBS

VoIP services

- SIP methods: ACK, BYE, INVITE, NOTIFY, REFER, CANCEL, OPTIONS, REGISTER
- Configurable IP transport layer UDP or TCP
- Number normalization and manipulation of Called, Calling, and Redirected Number
- Call Routing based on Called/Calling/Redirected Number, PSTN Interface, and/or SIP Peer

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- Call Hold/Retrieve (for example, Re-Invite mapping towards ISDN)
- PSTN-side Call Transfer (that is, REFER points to PSTN)
- Call Diversion
- Message Waiting Activation/Deactivation
- Call Redirection via 302 Moved Temporarily
- Simplified Number Normalization based on PSTN connection parameters
- Number Manipulation using Regular Expressions
- Configurable Cause Code Mapping
- Clear Channel Fax
- Clear Channel Modem

### FoIP (T.38) services

- T.30 Fax Group 3 up to 33.6 kbps using T.38 real-time FoIP
- Fax compression MH, MR, MMR
- Error Correction Mode (ECM)

### Additional SIP features

- Registering SIPcontrol at a Registrar server
- Digest Authentication of SIP Requests from SIPcontrol according to RFC2617

### Technical SpecificationsSecurity

- TLS and SSL authentication
- SRTP (secure Real-time Transport Protocol)
- SIPS (Secure SIP)
- Supported ciphers: DH, ADH, AES (128-256 bits), 3DES (64 bits), DES (64 bits), RC4 (64 bytes), RC4 (256 bytes), MD5, SHA1

### Reliability

- Load balancing and failover on PSTN side
- Load balancing and failover on SIP side (optionally uses OPTIONS for keep-alive check)
- Alive check for active calls on SIP side via SIP session timer (RFC4028)

### Media processing

- DTMF generation and recognition (in-band)
- DTMF relay, RFC2833
- Echo Cancellation as per G.168 standard with up to 256 ms echo tail (depending on Media Gateway interface)
- Voice Activity Detection and Comfort Noise Generation

### IP Media CODEC

- IP Real-time Transport Protocol (RTP)
- RTP profile name RTP/AVP
- RTP event (RFC2833) for DTMF, Fax and modem tones
- G.711 CODEC, 64 kbps (64 kbps, A-law, &micro;-law)
- G.726 (16, 24, 32, and 40 kbps)
- G.729 CODEC (requires additional license)
- GSM full rate CODEC

## Dialogic 4000 4-port T1/E1 96/120 Channels +V.34 Fax/FoIP Media Gateway with Survivable Branch Appliance capabilities

• 1/2 iLBC CODEC (not available on DMG4008LSW and DMG4008BRI)  
• 1/2 Comfort Noise (RFC3389)  
• 1/2 Configurable packetization time between 20 ms and 200 ms (iLBC only 20 ms and 30 ms)

Physical dimensions 1U 19-inch rack mount server  
Power supply

• 1/2 400 W  
• 1/2 Two (2) redundant power supplies included

**Price: £8,516.10**

Options available for Dialogic 4000 4-port T1/E1 96/120 Channels +V.34 Fax/FoIP Media Gateway with Survivable Branch Appliance capabilities :

### Support Required

Standard Per Unit Plan 1 Year (+£1,215.00), Not Required.

### Compatibility for Lync or OCS

Microsoft OCS, Microsoft Lync.