

Dialogic® Diva® SIPcontrol™ Software

Dialogic® Diva® SIPcontrol™ Software converts Dialogic® Diva® boards (Universal and V-Series) into SIP-enabled PSTN-IP gateways. The boards support a variety of TDM protocols and interfaces, ranging from analog over ISDN and QSIG with BRI and PRI interfaces to E1/T1 digital variants.

The resulting SIP gateway can be used to add rich IP communication, presence, instant messaging, and multimedia with video to traditional voice-only applications sets. The gateway creates a bridge between the SIP applications and the switch or PBX required for connection to the PSTN, allowing voice calls to be sent to and received from TDM phones.

Diva SIPcontrol translates call control information from the Diva® board into SIP messages while voice channels are converted into IP packets and streamed via the RTP protocol. When Diva SIPcontrol and Diva boards are combined in a Windows®-based server, the result is a functional PSTN-IP gateway appliance with the benefits of using industry-standard hardware and operating systems and the proven reliability of dedicated telephony boards.

Two versions of the Diva SIPcontrol software are available:

- **Version 1.5** — Can be used in conjunction with Dialogic Diva boards to provide an interface for Dialogic® Host Media Processing Software. In the resulting hybrid TDM/IP environment, Dialogic HMP Software applications written to Dialogic® Global Call and Dialogic® R4 APIs can send and receive voice, DTMF, speech, or fax calls concurrently from TDM via ISDN BRI interfaces and from IP via H.323 and SIP interfaces.
- **Version 1.6** — Optimized for use with Microsoft® Office Communications Server 2007 and Microsoft® Exchange Server 2007. Version 1.6 adds new features to Version 1.5 such as web-based configuration, enhanced call routing capabilities, enhanced address manipulation, configurable cause codes, an improved dial plan, trunk selection for outgoing calls, and enhanced regular expressions. Note: Version 1.6 does not provide an interface for Dialogic HMP Software.

Features	Benefits
Designed in accordance with Microsoft® SIP specifications and supports SIP over TCP according to RFC 3261	Works with Microsoft® SIP-based applications, including Microsoft® Exchange Server 2007 with Unified Messaging and Microsoft® Office Communications Server 2007
Scales downward to support 2-, 4-, and 8-port configurations and upward to as many as 120 channels	Provides flexible deployment and can be used with analog or ISDN BRI interfaces in small-to-medium enterprises or with multiple digital E1/T1 spans in medium-to-large enterprises
Used with Diva boards that support major ISDN protocols, QSIG, and vendor implementations of supplementary services	Supports direct PSTN and PBX connectivity
Works with DSPs on Diva boards to support voice activity detection, silence suppression, echo cancellation with up to 128 ms tail length, and anti-jitter buffering	Enables high-performance media processing
Supports DTMF fax collection/generation according to rfc2833 and fax detection and converts to Fax over IP (FoIP) (on fax-enabled Diva boards only) according to the T.38 standard (up to 33.6 kbps)	Converts DTMF fax to FoIP (and vice versa) as required
Diva boards used with Diva SIPcontrol conform to plug-and-play standards and use Microsoft® Management Console for simple and straightforward configuration	Easy to install and configure
Works in conjunction with Dialogic Diva Media Boards and Dialogic HMP Software (Version 1.5)	Provides a PSTN interface for Dialogic HMP Software in a hybrid TDM-IP environment

Technical Specifications

Quick Reference

Functionality	<p>VoIP call control (SIP)</p> <p>Supplementary services (call hold/retrieve, message waiting, and others)</p> <p>FoIP (T.38 up to 33.6 kbps) (on fax-enabled Diva boards only)</p> <p>Tone processing (DTMF)</p> <p>Media streaming (RTP G.711)</p> <p>Interface to Dialogic® Host Media Processing Software (Version 1.5 of Dialogic® Diva® SIPcontrol™ Software only)</p>
Protocols	RFC 3261, RFC 2327, RFC 3265, RFC 3515; RFC 2833; Fax (T.30 Group 3) and FoIP (T.38) (on fax-enabled Diva boards only); Microsoft® UC specifications
Licensing	Delivered with 8 channels; license required for additional channels
Network interface	IP over Ethernet with any NDIS-5 compatible Ethernet card
Density	<p>Dialogic® Diva® board dependent: ISDN BRI, ISDN PRI, E1, T1, analog loop start</p> <p>Up to four supported Dialogic Diva boards per system</p> <p>Up to 120 TDM channels per system</p>
Operating systems	Windows®, Linux. Details at http://www.dialogic.com/systemreleases

Features

- VoIP call control
 - Session Initiation Protocol (SIP), RFC 3261
 - Configurable transport layer for SIP, UDP and TCP
 - Session Description Protocol (SDP), RFC 2327
 - Further SIP Methods: NOTIFY (RFC 3265), REFER (RFC 3515), 302 REDIRECT, DIVERSION HEADER
 - Basic call with far-end and near-end disconnect
- Supplementary services
 - Numbering services (abstracted as Called Party Number, Calling Party Number/CLIP, and Redirecting Number)
 - Call hold/retrieve
 - Call diversion
 - Unattended, blind transfer
 - Attended transfer with consultation call
 - Message waiting activation / deactivation
- FoIP services (on fax-enabled Diva boards only)
 - T.30 Fax Group 3 up to 33.6 kbps using T.38 Real-time fax over IP
 - Fax compression MH, MR, MMR
 - Error Correction Mode (ECM)
 - Clear Channel Fax
- Tone processing features
 - DTMF generation and recognition (in-band)
 - DTMF relay, RFC 2833
- Media streaming
 - IP Real-time Transport Protocol (RTP)
 - RTP dynamic payload audio/telephony event
 - RTP profile name RTP/AVP
 - TDM-side fax tone detection via RTP event (RFC 2833)
 - Echo canceller with up to 128 ms echo tail
 - G.711 coder, 64 kbps, A-law, μ -law, 10 ms, 20 ms and 30 ms packetization time
- Network interface
 - IP over Ethernet with any NDIS-5 compatible Ethernet adapter
 - ISDN BRI, ISDN PRI, E1, T1, analog loop start with Diva® board

Technical Specifications (cont.)

- Supported Dialogic® Diva® Media Boards
 - Dialogic® Diva® BRI-2 Media Board
 - Dialogic® Diva® 4BRI-8 Media Board
 - Dialogic® Diva® PRI/E1/T1-8 Media Board
 - Dialogic® Diva® PRI/T1-24 Media Board
 - Dialogic® Diva® PRI/E1-30 Media Board
 - Dialogic® Diva® Analog-2P Media Board
 - Dialogic® Diva® Analog-4P Media Board
 - Dialogic® Diva® Analog-8P Media Board
 - Dialogic® Diva® V-BRI-2 Media Board
 - Dialogic® Diva® V-4BRI-8 Media Board
 - Dialogic® Diva® V-PRI/T1-24 Media Board
 - Dialogic® Diva® V-PRI/E1-30 Media Board
 - Dialogic® Diva® V-2PRI/T1-48 Media Board
 - Dialogic® Diva® V-2PRI/E1-60 Media Board
 - Dialogic® Diva® V-4PRI/T1-96 Media Board
 - Dialogic® Diva® V-4PRI/E1-120 Media Board
 - Dialogic® Diva® V-Analog-4P Media Board
 - Dialogic® Diva® V-Analog-8P Media Board
- Channel density
 - Up to four Diva telephony boards per system
 - Up to 120 TDM channels per system
- Operating system requirements
 - Windows®; Linux. Details at <http://www.dialogic.com/systemreleases>
- Compatibility with
 - Standard SIP applications
 - Microsoft® Exchange Server 2007 Unified Messaging
 - Microsoft® Office Communications Server 2007

Ordering Information

Dialogic® Diva® Product	Order Code
SIPcontrol 24 CH SW license	M04-060
SIPcontrol 30 CH SW license	M05-060
SIPcontrol 48 CH SW license	M06-060
SIPcontrol 60 CH SW license	M07-060
SIPcontrol 96 CH SW license	M08-060
SIPcontrol 120 CH SW license	M09-060

To learn more about Dialogic® products, go to <http://www.dialogic.com>

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03/08 10515-02