

## Dialogic® Diva® softIP for SIP

Dialogic® Diva® softIP for SIP is an optional software module for the Dialogic® Diva® Application Programming Interface (API).

Diva softIP for SIP enables a seamless migration of existing fax, voice, and unified messaging applications to an all-IP communications environment. Diva softIP for SIP provides access to Soft PBX and IP Call Manager platforms using SIP and RTP, and lets any application based on the Dialogic® Diva® API or CAPI work with IP phones and soft phones in an IP telephony environment.

Diva softIP for SIP allows developers to avoid implementing the SIP protocol and to concentrate instead on enhancing their applications, greatly reducing development effort and time-to-market. Because it supports important supplementary telephony services and T.38 real-time Fax over IP (FoIP), Diva softIP for SIP allows sophisticated unified messaging and call center applications to work transparently within both existing telephony and new IP environments.

Diva softIP for SIP supports a variety of configuration scenarios, ranging from hybrid configurations (which use Dialogic® Diva® boards for VoIP and FoIP, to pure IP-based systems). In an all-IP environment, Diva softIP for SIP facilitates advanced IP media server applications powered solely by host server CPUs.

Features	Benefits
<b>Unrestricted support of Dialogic® Diva® API and CAPI</b>	Facilitates use of Diva softIP for SIP in building IP communications solutions
<b>Supports open standards such as SIP, T.38 FoIP, and RTP</b>	Use of open standards is a key success factor in a move to IP telephony
<b>Supplementary service support</b>	Enables seamless use of common telephony services such as call diversion, call transfer, call hold, and message waiting in both hybrid and IP environments
<b>Supports high-speed FoIP in T.38 and G.711 pass-through mode</b>	Allows use of legacy fax machines in an IP environment with up to 33.4 kbps connection speed
<b>Handles VoIP-specific call control</b>	Lets developers concentrate on enhancing applications, reducing development effort and time to market
<b>Modular design</b>	Flexible enough for use in both hybrid environments with Dialogic® Diva® boards and in stand-alone pure IP-based media server systems
<b>Ability to activate additional channels and features, as needed, using a flexible software licensing model</b>	Easy scalability that allows development on a small platform followed by easy expansion to deployment to a much larger platform with minimal additional cost
<b>Continuous compatibility testing</b>	Ensures softIP for SIP supports industry-leading VoIP products

## Technical Specifications

### Quick Reference

API	Dialogic® Diva® API CAPI 2.0
Functionality	Call control (SIP, SDP) Supplementary services Fax (T.30 Group 3 and T.38 FoIP) In-band DTMF and DTMF relay (RFC 2833)
Media streaming	RTP; G.711
Network interface	IP over Ethernet (NDIS-5)
Channel density	Dialogic® Diva® boards dependant: ISDN BRI, ISDN PRI, E1, T1, analog loopstart Up to 240 concurrent (TDM-IP hybrid); up to 120 concurrent (stand-alone IP) Up to 8 Ethernet or Dialogic Diva boards
Operating systems	Windows®, Linux. Details at <a href="http://www.dialogic.com/systemreleases">http://www.dialogic.com/systemreleases</a>
Interoperability	Cisco (Unified Communications Manager, Unified Communications Manager Express, VoIP gateway) Innovaphone (gateways, IP phones) SIPPS (Soft phone) Snom (IP phone) Telebau (gateway, IP phone) Siptronic (IP phone) Kapanga (Softphone)

### Application Programming Interfaces

- Dialogic® Diva® API
- CAPI 2.0, 4th Edition
- CAPI 2.0 features
  - B-channel protocols, 64 kbps bit transparent, transparent, T.30
  - Fax support T.30, MH, MR, MMR, ECM
  - DTMF recognition and generation (in-band and out-band)
  - Conferencing via line interconnect
  - Explicit Call Transfer with Consultation Call
- IP only configuration, Host Media Processing
- TDM/IP hybrid configuration

### Features

- VoIP call control
  - Session Initiation Protocol (SIP), RFC 3261
  - Session Description Protocol (SDP), RFC 2327
  - Further SIP Methods: INFO (RFC 2976), NOTIFY (RFC 3265), REFER (RFC 3515), SUBSCRIBE (RFC 3265), REGISTER (RFC3261) with digest authentication
- Supplementary services
  - Numbering services (abstracted as Called Party Number, Calling Party Number/CLIP, Redirecting Number)
  - Call hold/retrieve
  - Blind transfer
  - Message Waiting Indication (MWI)
  - Explicit Call Transfer (ECT)
- Fax services
  - T.30 Fax Group 3 up to 33.6 kbps using T.38 real-time fax over IP
  - T.30 Fax Group 3 up to 33.6 kbps using G.711 pass-through mode (requires Dialogic® Diva® Media Boards for PRI)
  - Fax compression MH, MR, MMR
  - Error Correction Mode (ECM)
- Tone processing features
  - DTMF generation and recognition (In-band)
  - DTMF relay, RFC 2833

## Technical Specifications (cont.)

### Features (cont.)

- Media streaming
  - IP Real-time Transport Protocol (RTP)
  - G.711 coder, 64 kbps (64 kbps, A-law,  $\mu$ -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 loopstart with Diva® board
- Channel density
  - Ethernet adapters and Diva boards can be mixed and matched
  - Up to eight adapters (Ethernet or Diva board) per system
  - Up to 240 concurrent channels in TDM/IP hybrid configuration
  - Up to 120 concurrent channels in stand-alone IP configuration
- Operating system requirements
  - Windows®; Linux. Details at <http://www.dialogic.com/systemreleases>
- Proven interoperability
  - Cisco (Unified Communications Manager, Unified Communications Manager Express, VoIP Gateway)
  - Innovaphone (Gateways, IP Phone)
  - SIPPS (Softphone)
  - Snom (IP Phone)
  - Siptronic (IP Phone)
  - Kapanga (Softphone)

## Ordering Information

Dialogic® Diva® Product	Order Code
softIP for SIP Base Product Telephony (with M01-040 SW-License for 2 channels)	316-040
softIP for SIP Fax T.38 Base Product (with M02-040 SW-License for 2 channels)	316-042
softIP for SIP SW-License SIP Telephony (SIP, RTP, DTMF, G.711, per channel)	M01-040
softIP for SIP SW-License Fax T.38 (including Telephony) (T.38 Real-Time Fax over IP, per channel)	M02-040
softIP for SIP SW-License Fax T.38 Upgrade (option for M01-040, per channel)	M05-040

To learn more, visit <http://www.dialogic.com>

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