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Dialogic® Multimedia Software for AdvancedTCA Release 2.0

Release Update

December 16, 2009

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About This Publication

This section contains information about the following topics:

Purpose

This Release Update addresses issues associated with the Dialogic® Multimedia Software for AdvancedTCA Release 2.0. In addition to summarizing issues that were known as of this release, it is intended that the Release Update will continue to be updated to serve as the primary mechanism for communicating any new issues that may arise after the release date.

Intended Audience

This Release Update is intended for all users of the Dialogic® Multimedia Platform for AdvancedTCA and Dialogic® Multimedia Software for AdvancedTCA Release 2.0.

How to Use This Publication

This Release Update is organized into the following sections (click the section name to jump to the corresponding section):

- Document Revision History: This section summarizes changes and additions that have been made to this Release Update after its original release. This section is organized by document revision and document section.
- Post-Release Developments: This section describes significant changes to the release subsequent to the general availability release date. For example, new features provided in the Service Update are described in this section.
- Release Issues: This section lists issues that may affect the system release hardware and software.
- Documentation Updates: This section contains corrections and other changes that apply to the documentation not made prior to the release. These updates are organized by documentation category and by individual document.

Related Information

See the following for additional information:

- For information about the products and features supported in this release, see the *Dialogic® Multimedia Software for AdvancedTCA Release 2.0 Release Guide*, which is included as part of the documentation bookshelf for the release.
- For further information on issues that have an associated defect number, you may use the Defect Tracking tool at *http://membersresource.dialogic.com/defects/.* When you select this link, you will be asked to either LOGIN or JOIN.
- *http://www.dialogic.com/manuals/* (for Dialogic® product documentation)
- *http://www.dialogic.com/support/* (for Dialogic technical support)
- *http://www.dialogic.com/* (for Dialogic® product information)

Document Revision History

This Revision History summarizes the changes made in this and each previously published version of the Release Update for Dialogic® Multimedia Software for AdvancedTCA Release 2.0, which is a document that is planned to be periodically updated throughout the lifetime of the release.

Document Rev 09 - published December 16, 2009

Updated for Service Update 130.

In the Post-Release Developments chapter:

- Added Support for SS7 Functionality (introduced in Service Update 127).
- Added Support for Dialogic® SS7 Boards (introduced in Service Update 127).

In the Release Issues chapter:

- Added the following Resolved Issues: IPY00079926, IPY00080463, IPY00080480, IPY00080860, IPY00081381.

In the Documentation Updates chapter:

- Added a new book, Dialogic® Global Call SS7 Technology Guide, to the Programming Libraries section. This book supports SS7 functionality.
- Added that a new version of the Dialogic® Device Management API Library Reference is now available on the documentation bookshelf.
- Deleted the updates for the Dialogic® IP Media Library API Programming Guide and Library Reference because these updates have been incorporated into the revised document now available on the documentation bookshelf.
- Added that a new version of the Dialogic® Multimedia API Programming Guide and Library Reference is now available on the documentation bookshelf.

Document Rev 08 - published April 28, 2009

Updated for Service Update 127.

In the Release Issues chapter:

- Added the following Resolved Issues: IPY00044858, IPY00078721, IPY00079010, IPY00079151, IPY00079551, IPY00079601, IPY00079734, IPY00079742, IPY00079787.

In the Documentation Updates chapter:

- Added that a new version of Dialogic® 3G-324M Multimedia Gateway Demo Guide is now available on the documentation bookshelf.

Document Rev 07 - published December 12, 2008

Updated for Service Update 122.

In the Post-Release Developments chapter:

- Added RTCP Receiver Report Enhancements.
- Added Multiple Frames Per Packet Support for AMR-NB.
- Added AMR-NB and G.711 Audio Over Nb UP.
- Added H.263 Using RFC 2429 (RFC 4629) Packetization.
- Added Recording Raw Bit Stream Using Voice Device.

In the Release Issues chapter:

- Added the following Resolved Issues: IPY00042581, IPY00078344.
- Added the following Known (permanent) Issues: IPY00037292, IPY00039397.
- Added the following Known Issues: IPY00044096, IPY00045518.

In the Documentation Updates chapter:

- Added update to Dialogic® Multimedia Blade for AdvancedTCA Technical Product Specification that SF (Super Frame) T1 framing is not supported.
- Added that a new version of Dialogic® Device Management API Library Reference is now available on the documentation bookshelf.
- Added updates to Dialogic® IP Media Library API Programming Guide and Library Reference for IPM_NBUP_PROFILE_INFO, IPM_NBUP_SUBFLOW_INFO, and IPM_VIDEO_CODER_INFO data structures.
- Added that a new version of Dialogic® Multimedia API Programming Guide and Library Reference is now available on the documentation bookshelf.
- Added updates to Dialogic® Voice API Library Reference for DX_XPB data structure.
- Added that a new version of MSML Media Server Software User's Guide is now available on the documentation bookshelf.

Document Rev 06 - published September 26, 2008

Updated for Service Update 107.

In the Post-Release Developments chapter:

- Added MONA Support in the 3G-324M API.

In the Release Issues chapter:

- Added the following Resolved Issues: IPY00043215, IPY00043494, IPY00043578, IPY00043807, IPY00043816, IPY00043835, IPY00043836, IPY00043936, IPY00043940, IPY00043971, IPY00044022, IPY00044040, IPY00044204, IPY00044206, IPY00044261, IPY00044447, IPY00044760, IPY00044905, IPY00044906, IPY00045114.

- Added the following Known Issue: IPY00044651.

In the Documentation Updates chapter:

- Added that a new version of Dialogic® Multimedia Software for AdvancedTCA Release 2.0 Release Guide is now available on the documentation bookshelf.
- Added that a new version of Dialogic® 3G-324M API Programming Guide and Library Reference is now available on the documentation bookshelf.
- Added that a new version of Dialogic® IP Media Library API Programming Guide and Library Reference is now available on the documentation bookshelf.
- Added update to Dialogic® Standard Runtime Library API Library Reference for sr_getfdcnt( ) and sr_getfdinfo( ) functions (IPY00045054).
- Added that a new document named Dialogic® 3G-324M Multimedia Gateway Demo Guide is now available on the documentation bookshelf.
- Added that a new document named Dialogic® Global Call API Demo Guide is now available on the documentation bookshelf.
- Added that a new document named Dialogic® Multimedia Demo Guide is now available on the documentation bookshelf.

Document Rev 05 - published June 13, 2008

Updated for Service Update 89.

In the Post-Release Developments chapter:

- Added Service Update.
- Added Capturing a Still Image from a Video Stream.
- Added Digital Video Recorder (DVR) Controls.

In the Release Issues chapter:

- Added the following Resolved Issues: IPY00039390, IPY00040965, IPY00040996, IPY00041175, IPY00041270, IPY00041911, IPY00042097, IPY00042176, IPY00042184.
- Added the following Known Issues: IPY00041049, IPY00041546, IPY00042249, IPY00042693, IPY00042921, IPY00042923, IPY00043215, IPY00043268, IPY00043494, IPY00043578, IPY00043594, IPY00043783, IPY00043807, IPY00043936, IPY00043940, IPY00043970, IPY00044022.

In the Documentation Updates chapter:

- Added updates to Dialogic® Multimedia Blade for AdvancedTCA Technical Product Specification for High Channel Density Requirements, Changing the SNMP Listening Port, and Changing the Trap Listen Port sections.
- Added updates to Dialogic® IP Media Library API Programming Guide and Library Reference for IPM_AUDIO_CODER_INFO (or IPM_CODER_INFO) and IPM_VIDEO_CODER_INFO_EX data structures.

- Removed updates and added that new version of Dialogic® Multimedia API Programming Guide and Library Reference is available on the documentation bookshelf.

Document Rev 04 - published March 18, 2008

Updated for Dialogic® Multimedia Software for AdvancedTCA Release 2.0 - General Availability.

In the Documentation Updates chapter:

- Removed updates to the Dialogic® Multimedia Blade for AdvancedTCA Technical Product Specification that CLI Show and CLI Conf commands have a new subcommand for msml: resource-list (MSML resource reservation). This feature will be supported in an upcoming release.
- Removed updates to the Dialogic® Global Call API Programming Guide since there is a new version available on the documentation bookshelf.
- Removed updates to the Dialogic® Media Toolkit API Library Reference since the functions previously listed are supported.
- Removed updates to the Dialogic® Voice API Programming Guide since there is a new version available on the documentation bookshelf.

Document Rev 03 - published February 7, 2008

Updated for Dialogic® Multimedia Software for AdvancedTCA Release 2.0 - General Availability.

In the Release Issues chapter:

- Added the following Resolved Issues: IPY00039393, IPY00040854, IPY00041008.
- Added the following Known (permanent) Issues: IPY00041573, IPY00041593.
- Added the following Known Issues: IPY00037480, IPY00040177, IPY00041135, IPY00041197, IPY00041546, IPY00041734, IPY00041911, IPY00041958, IPY00042097, IPY00042149, IPY00042176, IPY00042184, IPY00042203, IPY00042219, IPY00042249, IPY00042260.

In the Documentation Updates chapter:

- Added updates to the Dialogic® Multimedia Blade for AdvancedTCA Technical Product Specification that CLI Show and CLI Conf commands have a new subcommand for msml: resource-list.
- Added update to the Dialogic® Multimedia API Programming Guide and Library Reference that capture still image feature is not currently supported.

Document Rev 02 - published December 20, 2007

Updated for Dialogic® Multimedia Software for AdvancedTCA Release 2.0 - Controlled Introduction Build 53.

In the Release Issues chapter:

- Added the following Resolved Issues: IPY00040945, IPY00041085, IPY00041176.

In the Documentation Updates chapter:

- Added that new version of document is available in Dialogic® IP Media Library API Programming Guide and Library Reference to support video fast update.

Document Rev 01 - published November 21, 2007

Initial version of document for Dialogic® Multimedia Software for AdvancedTCA Release 2.0 - Controlled Introduction.

Post-Release Developments 1

This section describes significant changes to Dialogic® Multimedia Software for AdvancedTCA Release 2.0 subsequent to the general availability release.

1.1 Service Update

A Service Update for Dialogic® Multimedia Software for AdvancedTCA Release 2.0 is now available. Service Updates provide fixes to known problems, and may also introduce new functionality. New versions of the Service Update will be released periodically. It is intended that this Release Update will document the features in the Service Updates.

1.2 Support for SS7 Functionality

With Service Update 127, Dialogic® Multimedia Software for AdvancedTCA Release 2.0 supports Signaling System 7 (SS7) via Signaling Interface Units (SIU) and SIGTRAN (IETF SS7 Signaling over IP). The Dialogic® software provides SIU/SIGTRAN detection, initialization and configuration support. The Dialogic® Global Call software supports the development of call control applications that use SS7 technology. For more information about SS7 technology, refer to the *Dialogic® Global Call SS7 Technology Guide,* now available on the documentation bookshelf.

Note: Global Call SS7 binaries are now linked with the shared library of the Dialogic® SS7 DSI Development Package. Global Call SS7 customers must use the Dialogic® SS7 DSI Development Package version 5.0 or later. If an older version is used, the Global Call SS7 server will not start during download. (IPY00081381)

1.3 Support for Dialogic® SS7 Boards

With Service Update 127, Dialogic® Multimedia Software for AdvancedTCA Release 2.0 supports Dialogic® SS7 boards. Dialogic® SS7 boards provide on-board support for SS7 common channel signaling protocols with a number of digital line interfaces (T1/E1/J1) and a H.100 or H.110 PCM highway that supports connection to a wide range of voice, data, and fax boards. See the *Release Guide* for supported Dialogic® SS7 boards. Refer to the *Dialogic® Global Call SS7 Technology Guide* for more details on the features and configurations.

1.4 RTCP Receiver Report Enhancements

Service Update 122 adds support for RTCP Receiver Report (RR) control packets for both audio and video streams. Previously only audio streams were supported.

For applications that stream multimedia via an RTSP (real-time streaming protocol) server, session participants must send RTCP RR control packets for both audio and video streams to report reception status and maintain session establishment. Failure to do so results in pre-mature session termination. This feature enables multimedia applications to interoperate with RTSP servers without unexpected session termination as a result of RTCP RR reports not being generated and sent to the RTSP server.

There are no API changes to the Dialogic® IP Media Library (IPML) API as a result of this feature.

1.5 Multiple Frames Per Packet Support for AMR-NB

With Service Update 122, multiple frames per packet (fpp) are supported for AMR-NB codec for RTP interface: 1 to 10 fpp (octet-aligned and bandwidth-efficient). Previously only 1 fpp was supported.

For more information, see the *Dialogic® IP Media Library API Reference*.

Note: Using the AMR-NB resource in connection with one or more Dialogic® products mentioned herein does not grant the right to practice the AMR-NB standard. To seek a patent license agreement to practice the standard, contact the VoiceAge Corporation at *http://www.voiceage.com/licensing.php*.

1.6 AMR-NB and G.711 Audio Over Nb UP

Service Update 122 adds support for streaming AMR-NB and G.711 audio over Nb UP. Previously only streaming 3G-324M over Nb UP was supported.

Note: Using the AMR-NB resource in connection with one or more Dialogic® products mentioned herein does not grant the right to practice the AMR-NB standard. To seek a patent license agreement to practice the standard, contact the VoiceAge Corporation at *http://www.voiceage.com/licensing.php*.

1.6.1 Feature Description

This feature allows an IP media streaming (IPM) device to stream AMR-NB audio (20 ms, 12.2 Kbps bit rate) and G.711 audio (5 ms and 20 ms, A-law and mu-law) over Nb UP. This data can be streamed to and from a 3G network. A multimedia (MM) device can be connected to the IPM device for native play and record operations. Transcoding is not currently supported.

Setting up AMR-NB over Nb UP or G.711 over Nb UP media sessions is similar to setting up a 3G-324M over Nb UP session. However, the 3G-324M (M3G) component is not used. The following sections provide guidelines for streaming AMR-NB audio or G.711 audio over Nb UP.

1.6.2 Guidelines for Streaming AMR-NB Over Nb UP

To stream AMR-NB audio (20 ms, 12.2 Kbps bit rate) over Nb UP, follow these general guidelines:

- Specify a native connection between the IPM device and the MM device. Native play and record operation takes place using native AMR-NB 12.2 Kbps audio files.
- Where available, use the inline function to initialize a data structure. For example, use INIT_IPM_NBUP_PROFILE_INFO to initialize IPM_NBUP_PROFILE_INFO, and INIT_IPM_NBUP_INIT_SEND to initialize IPM_NBUP_INIT_SEND.
- Call **ipm_StartMedia( )** to start the session. In the IPM_NBUP_PROFILE_INFO structure, specify NBUP_PROFILE_AMR_NB in the eProfileType field.
- Call **ipm_InitSend( )** to send an Nb UP initialization message to the remote endpoint. Construct the IPM_NBUP_INIT_SEND structure with a list of two IPM_NBUP_RFCI_INFO structures.

  The first IPM_NBUP_RFCI_INFO structure, which represents the first RFCI, should contain three IPM_NBUP_SUBFLOW_INFO structures. For the first IPM_NBUP_SUBFLOW_INFO structure, specify NBUP_FLOW_SIZE_81_BITS. For the second structure, specify NBUP_FLOW_SIZE_103_BITS. For the third structure, specify NBUP_FLOW_SIZE_60_BITS. This represents the RFCI used for the source rate of AMR-NB 12.2 Kbps.

  The second IPM_NBUP_RFCI_INFO structure, which represents the second RFCI, should contain three IPM_NBUP_SUBFLOW_INFO structures. For the first

IPM_NBUP_SUBFLOW_INFO structure, specify NBUP_FLOW_SIZE_39_BITS. For the second and third structures, specify NBUP_FLOW_SIZE_0_BITS. This represents the RFCI used for the source rate of AMR-NB SID.

The IPMEV_INIT_SEND termination event indicates successful completion of the **ipm_InitSend( )** function.

- Upon receiving the IPMEV_INIT_RECEIVED event, the remote endpoint calls **ipm_InitResponseSend( )** to respond to the Nb UP message sent by the local endpoint.

  The IPMEV_INIT_RESPONSE_SEND termination event indicates successful completion of the **ipm_InitResponseSend( )** function.
- Both the remote endpoint and the local endpoint should receive the IPMEV_INIT_COMPLETE unsolicited event, which indicates that the Nb UP session is successfully established. Upon receiving this event, the endpoints may exchange data, for example, using **mm_Play( )** and **mm_Record( )**.

1.6.3 Guidelines for Streaming G.711 (5 ms) over Nb UP

To stream G.711 (5 ms) audio over Nb UP, follow these general guidelines:

- Specify a native connection between the IPM device and the MM device. Native play and record operation takes place using native G.711 audio files.

  Note: For play operation, native audio files containing G.711 20 ms format may be used. The Dialogic® product transforms this data to 5 ms format before transmitting to the IP network.
- Where available, use the inline function to initialize a data structure. For example, use INIT_IPM_NBUP_PROFILE_INFO to initialize IPM_NBUP_PROFILE_INFO, and INIT_IPM_NBUP_INIT_SEND to initialize IPM_NBUP_INIT_SEND.
- Call **ipm_StartMedia( )** to start the session. In the IPM_NBUP_PROFILE_INFO structure, specify NBUP_PROFILE_G711ALAW64K_5MS or NBUP_PROFILE_G711ULAW64K_5MS in the eProfileType field.
- Call **ipm_InitSend( )** to send an Nb UP initialization message to the remote party. Construct the IPM_NBUP_INIT_SEND structure with a list of one IPM_NBUP_RFCI_INFO structure.

  The IPM_NBUP_RFCI_INFO structure should contain three IPM_NBUP_SUBFLOW_INFO structures. For the first IPM_NBUP_SUBFLOW_INFO structure, specify NBUP_FLOW_SIZE_320_BITS. For the second and third structures, specify NBUP_FLOW_SIZE_0_BITS. This represents the RFCI used for the source rate of G.711 5 ms.

  The IPMEV_INIT_SEND termination event indicates successful completion of the **ipm_InitSend( )** function.
- Upon receiving the IPMEV_INIT_RECEIVED event, the remote endpoint calls **ipm_InitResponseSend( )** to respond to the Nb UP message sent by the local endpoint.

The IPMEV_INIT_RESPONSE_SEND termination event indicates successful completion of the **ipm_InitResponseSend( )** function.

- Both the remote endpoint and the local endpoint should receive the IPMEV_INIT_COMPLETE unsolicited event, which indicates that the Nb UP session is successfully established. Upon receiving this event, the endpoints may exchange data, for example, using **mm_Play( )** and **mm_Record( )**.

1.6.4 Guidelines for Streaming G.711 (20 ms) over Nb UP

To stream G.711 (20 ms) audio over Nb UP, follow these general guidelines:

- Specify a native connection between the IPM device and the MM device. Native play and record operation takes place using native G.711 audio files.
- Where available, use the inline function to initialize a data structure. For example, use INIT_IPM_NBUP_PROFILE_INFO to initialize IPM_NBUP_PROFILE_INFO, and INIT_IPM_NBUP_INIT_SEND to initialize IPM_NBUP_INIT_SEND.
- Call **ipm_StartMedia( )** to start the session. In the IPM_NBUP_PROFILE_INFO structure, specify NBUP_PROFILE_G711ALAW64K_20MS or NBUP_PROFILE_G711ULAW64K_20MS in the eProfileType field.
- Call **ipm_InitSend( )** to send an Nb UP initialization message to the remote party. Construct the IPM_NBUP_INIT_SEND structure with a list of one IPM_NBUP_RFCI_INFO structure.

  The IPM_NBUP_RFCI_INFO structure should contain three IPM_NBUP_SUBFLOW_INFO structures. For the first IPM_NBUP_SUBFLOW_INFO structure, specify NBUP_FLOW_SIZE_1280_BITS. For the second and third structures, specify NBUP_FLOW_SIZE_0_BITS. This represents the RFCI used for the source rate of G.711 20 ms.

  The IPMEV_INIT_SEND termination event indicates successful completion of the **ipm_InitSend( )** function.
- Upon receiving the IPMEV_INIT_RECEIVED event, the remote endpoint calls **ipm_InitResponseSend( )** to respond to the Nb UP message sent by the local endpoint.

  The IPMEV_INIT_RESPONSE_SEND termination event indicates successful completion of the **ipm_InitResponseSend( )** function.
- Both the remote endpoint and the local endpoint should receive the IPMEV_INIT_COMPLETE unsolicited event, which indicates that the Nb UP session is successfully established. Upon receiving this event, the endpoints may exchange data, for example, using **mm_Play( )** and **mm_Record( )**.

1.6.5 API Library Changes

In the Dialogic® IP Media Library API, the following values are added to the eProfileType field, eIPM_NBUP_PROFILE_TYPE enumeration, for the IPM_NBUP_PROFILE_INFO structure:

NBUP_PROFILE_AMR_NB
AMR-NB type connection

NBUP_PROFILE_G711ALAW64K_5MS
G.711 A-law 5 ms type connection

NBUP_PROFILE_G711ALAW64K_20MS
G.711 A-law 20 ms type connection

NBUP_PROFILE_G711ULAW64K_5MS
G.711 mu-law 5 ms type connection

NBUP_PROFILE_G711ULAW64K_20MS
G.711 mu-law 20 ms type connection

In the Dialogic® IP Media Library API, the following values are added to the eFlowSize field, eIPM_NBUP_FLOW_SIZE enumeration, for the IPM_NBUP_SUBFLOW_INFO structure:

NBUP_FLOW_SIZE_39_BITS
use 39 bits (for AMR-NB)

NBUP_FLOW_SIZE_60_BITS
use 60 bits (for AMR-NB)

NBUP_FLOW_SIZE_81_BITS
use 81 bits (for AMR-NB)

NBUP_FLOW_SIZE_103_BITS
use 103 bits (for AMR-NB)

NBUP_FLOW_SIZE_1280_BITS
use 1280 bits (for G.711)

1.6.6 Documentation

The online bookshelf contains information about all release features including features for application development, configuration, administration, and diagnostics.

For more information about the Dialogic® IP Media Library API, see the following documents:

- *Dialogic® IP Media Library API Programming Guide*
- *Dialogic® IP Media Library API Library Reference*

1.7 H.263 Using RFC 2429 (RFC 4629) Packetization

Service Update 122 adds support for streaming H.263 Baseline Profile (Profile 0) Level 10 video using RFC 2429 packetization from an RTSP (Real-time Streaming Protocol) Server to 3G-324M calls. Note that this codec is also known as H.263-1998 or H.263+. Only Baseline Profile is supported. No H.263 annexes are supported.

Previously only H.263 video using RFC 2190 packetization was supported.

1.7.1 Feature Description

This feature allows an application to natively stream audio and video from an RTSP Server to 3G-324M calls terminated by the Dialogic® product. These 3G-324M calls may be established over the PSTN (for example, E1 circuit-switched connection) or over IP.

For 3G-324M calls established over the PSTN, this feature uses DTI and M3G devices. For 3G-324M calls established over IP, this feature uses IPM and M3G devices. Note that the DTI device and the IPM device establish the transport to the remote endpoint. H.223 multiplexed multimedia data flows between these devices and the M3G device. The M3G device performs the multiplex/demultiplex operations and acts as the portal to the rest of the multimedia server.

The audio streaming formats supported for this feature include AMR-NB and G.723.

1.7.2 Usage Guidelines

The following usage guidelines as well as restrictions and limitations are described for this feature:

- This feature is only supported for the 3PCC/SIP call model.
- Although the video format streamed from the RTSP Server to the product is H.263-1998 using RFC 2429 (RFC 4629) packetization, only Baseline H.263 is supported. Annexes are not supported. Video transcoding is not supported. Specify **native connection** (no transcoding) between devices in the DM_PORT_CONNECT_INFO structure of the Device Management API library.
- Audio transcoding is not supported. Therefore, the audio format selected for the 3G-324M call must be the same as the audio format selected for the RTSP Server. Specify **native connection** (no transcoding) between devices in the DM_PORT_CONNECT_INFO structure of the Device Management API library.
- The RTSP Server must be configured appropriately to interoperate with this feature. The characteristics of the video streamed from the RTSP Server must be compatible with 3G mobile devices and the transport; namely, set to QCIF picture format and constant bit rate (CBR) mode rather than variable bit rate (VBR) mode. Bit rates should not exceed 40 Kbps and frame rates should not exceed 15 fps. A nominal bit rate and frame rate to use is 37.8 Kbps at 7.5 fps.
- This feature only supports half-duplex streaming from the IPM device to the 3G-324M device.

- This feature does not support video play and record operations for IPM calls.
- When switching between video sources for transmission of video to the 3G remote terminal, such as switching between the RTSP Server and the MM device, you must send an I-frame as the first video frame streamed from the new source. Ensure that this takes place by starting a new play from the MM device when it becomes the new source or by starting a new play from the RTSP Server when it becomes the new source.

1.7.3 API Library Changes

In the Dialogic® IP Media Library API, the following value is added to the eCoderType field, eIPM_CODER_TYPE enumeration, for the IPM_VIDEO_CODER_INFO structure:

CODER_TYPE_H263_1998
H.263-1998 (also known as H.263+) video coder

In the Dialogic® 3G-324M API, the M3G device is enhanced to receive Baseline H.263-1998 video data. This change is transparent to the user.

1.7.4 Documentation

The online bookshelf contains information about all release features including features for application development, configuration, administration, and diagnostics.

For more information about the Dialogic® IP Media Library API, see the following documents:

- *Dialogic® IP Media Library API Programming Guide*
- *Dialogic® IP Media Library API Library Reference*

1.8 Recording Raw Bit Stream Using Voice Device

Service Update 122 adds support for recording raw T1/E1 DS0 64 Kbps bit streams using a voice device.

1.8.1 Feature Description

This feature allows the Dialogic® Multimedia Software for AdvancedTCA to record raw T1/E1 DS0 64 Kbps bit streams using a voice device. Recording up to 248 channels in a system is supported.

1.8.2 Usage Guidelines

To handle the incoming raw T1/E1 DS0 64 Kbps bit stream, follow these guidelines:

- Call **gc_openEx( )** to open a Global Call device. This function internally connects the digital network interface (DTI) device to the voice (DX) device. Or you can also connect the DTI device to the DX device using **dx_listen( )** or **dx_listenex( )**.
- Set the DTI device to transparent mode so that the bit stream is passed to the voice device unaltered. To do so, use the **gc_SetConfigData( )** function and set the CCPARM_TRANSPARENTMODE parameter to CCDM3FW_TRANSPARENTMODE_ENABLE. (You can disable transparent mode by setting the CCPARM_TRANSPARENTMODE parameter to CCDM3FW_TRANSPARENTMODE_DISABLE.)
- Transparent mode can also be configured on a system-wide basis by adding the following section to the *Hmp.Uconfig* file.

  [0x5a]

  SetParm=0x1221, 1 ! 0 = normal, 1 = 3G clear channel mode

  Set the parameter to 1 to enable transparent mode on all PSTN channels. Set to 0 to disable transparent mode on all PSTN channels. Default is disabled.
- Record the raw bit stream using **dx_reciottdata( )** with xpb.wDataFormat set to DATA_FORMAT_RAW.
- To play the raw bit stream, use **dx_playiottdata( )** with xpb.wDataFormat set to DATA_FORMAT_RAW.

1.8.3 API Library Changes

In the Dialogic® Voice API, the following value is added to the wDataFormat field in the DX_XPB structure:

DATA_FORMAT_RAW
raw 64 Kbps data format. Data is not encoded nor is any kind of processing performed on the data by the voice channel before it is stored in the recorded file.

Note: When set to DATA_FORMAT_RAW, the other fields in the DX_XPB structure are ignored.

1.8.4 Documentation

The online bookshelf contains information about all release features including features for application development, configuration, administration, and diagnostics.

For more information about the Dialogic® Voice API, see the following documents:

- *Dialogic® Voice API Programming Guide*
- *Dialogic® Voice API Library Reference*

1.9 MONA Support in the 3G-324M API

With Service Update 107, the MONA standard is supported in the 3G-324M API.

The Media Oriented Negotiation Acceleration (MONA) standard is a group of complementary procedures designed to significantly reduce delay in H.324 call setup time. The procedures include Media Preconfigured Channels (MPC), Accelerated Connect Procedure (ACP), and Signaling Preconfigured Channel (SPC). The MONA standard implemented by Dialogic uses MPC and ACP procedures, which classifies products based on Dialogic® 3G-324M software as Class II MONA terminals per H.324 Amendment K.7.2.1. Dialogic does not support the SPC procedure. For more information on MONA and its implementation in the 3G-324M API, see the *Dialogic® 3G-324M API Programming Guide and Library Reference*.

1.10 Capturing a Still Image from a Video Stream

With Service Update 89, the capture still image feature is supported. This feature provides the ability to capture a frame after a video stream has been paused and save it as an image. This feature is implemented in the Dialogic® Multimedia API Library. For more information, see the *Dialogic® Multimedia API Programming Guide and Library Reference*.

1.11 Digital Video Recorder (DVR) Controls

With Service Update 89, DVR controls are supported. These controls enable the user to pause, resume, and seek during video and audio playback. This feature is implemented in the Dialogic® Multimedia API Library. For more information, see the *Dialogic® Multimedia Programming Guide and API Library Reference*.

Release Issues 2

The table below lists issues that can affect the hardware and software supported in the Dialogic® Multimedia Software for AdvancedTCA Release 2.0. The following information is provided for each issue:

Issue Type
: This classifies the type of release issue based on its effect on users and its disposition:
  - Known – A minor hardware or software issue. This category includes interoperability issues and compatibility issues. Known issues are still open but may or may not be fixed in the future.
  - Known (permanent) – A known hardware or software issue or limitation that is not intended to be fixed in the future.
  - Resolved – A hardware or software issue that was resolved (usually either fixed or documented) in this release.

Defect No.
: A unique identification number that is used to track each issue reported via a formal Change Control System. Additional information on defects may be available via the Defect Query tool at *http://membersresource.dialogic.com/defects/*.
Note that when you select this link, you will be asked to either LOGIN or JOIN.

SU No.
: For defects that were resolved in a Service Update, the Service Update number is shown. For defects that were resolved when the base release was generally available (before any Service Updates), a "--" is shown. For non-resolved issues, this information is left blank.

Product or Component
: The product or component to which the problem relates; for example, an API.

Description
: A summary description of the issue. For non-resolved issues, a workaround is included when available.

Issues Sorted by Type, Dialogic® Multimedia Software for AdvancedTCA Release 2.0

Issue Type	Defect No.	SU No.	Product or Component	Description
Resolved	IPY00080860	130	Fax	Fax device fails to respond to specific inbound Digital Command Signals (DCS) sent by the remote-end.
Resolved	IPY00080480	130	Fax	The **fx_rcvfax( )** function occasionally fails and returns with an error code of 0x9 - Unknown error.
Resolved	IPY00080463	130	Fax	A T.38 Fax call fails on a page frame underrun instead of continuing and trying to recover.

Issues Sorted by Type, Dialogic® Multimedia Software for AdvancedTCA Release 2.0

Issue Type	Defect No.	SU No.	Product or Component	Description
Resolved	IPY00079926	130	Firmware	Firmware fails to return either an MMEV_RECORD or MMEV_RECORD_FAILED event after issuing the **mm_Record( )** function.
Resolved	IPY00081381	130	PSTN Call Control	The `gctload` command shuts down after 10 seconds of not being able to establish the communication with the SS7G21 Signaling Server. (See the note in Support for SS7 Functionality.)
Resolved	IPY00079742	127	PSTN	When acting as H.245 MASTER, the platform uses a rejection cause indicating unsuitable reverse parameters when receiving a bidirectional video OLC (without reverseParameters of nullData).
Resolved	IPY00079787	127	3G-324M	The **m3g_Open( )** function does not open ports when the device is re-opened for a second time. Therefore, when the device is closed, the port connection fails to close since the handle for the port connection is not valid.
Resolved	IPY00079010	127	3G-324M	An **m3g_ModifyMedia( )** function failure does not report a failure event to the application.
Resolved	IPY00079151	127	3G-324M	The call connection time for a 3G call using an LG cell phone is long than expected.
Resolved	IPY00044858	127	Dialogic® HMP software	The application is unable to convert proprietary linear PCM files to raw data PCM.
Resolved	IPY00079734	127	Firmware	Firmware crashes while parsing remote terminal alternate capability.
Resolved	IPY00079601	127	Global Call IP (SIP)	No response is returned when an INVITE with a parse error is received.
Resolved	IPY00078721	127	IP Media	Video checksum errors are occurring.
Resolved	IPY00079551	127	PSTN	IAM messages exceed the maximum allowed.
Resolved	IPY00078344	122	3G-324M	Only AL3 unidirectional is supported by the H.324M layer, in addition to complete AL2 mode. This causes interoperability issues for devices supporting only AL3.
Resolved	IPY00042581	122	SNMP	When download fails due to IP address conflict, there is no error message or explanation indicated.
Resolved	IPY00044447	107	3G-324M	**m3g_StopMedia( )** fails when m3g media devices are connected HDX as send only.
Resolved	IPY00044206	107	3G-324M	When using **m3g_OpenLC( )** to open local audio and video, the M3G_E_ERR_PROTOCOL error is returned.
Resolved	IPY00044204	107	3G-324M	Disabling WNSRP will result in 3G-324M connection failure.
Resolved	IPY00044040	107	3G-324M	**m3g_Trace( )** log displays kernel ticks and not system time, making it difficult to correlate to RTF logs.
Resolved	IPY00043971	107	3G-324M	When using **m3g_Reset( )** on the board device, it intermittently locks up control devices resulting in failure to establish synchronization on subsequent **m3g_StartH245( )** attempts.

Issues Sorted by Type, Dialogic® Multimedia Software for AdvancedTCA Release 2.0

Issue Type	Defect No.	SU No.	Product or Component	Description
Resolved	IPY00043936	107	3G-324M	When connecting 3G device to 2G device, audio bridging is not functional.
Resolved	IPY00043835	107	3G-324M	When using **m3g_OpenLC( )** to open video, the M3G_E_ERR_INV_ARGUMENT_VALUE error is returned when there isn't H.245 connection.
Resolved	IPY00043816 IPY00043836	107	3G-324M	**m3g_StopH245( )** fails when the application isn't able to close the LC before calling the function.
Resolved	IPY00043578	107	3G-324M	When using 3G connection, there is poor audio quality if transcoding from linear to AMR.
Resolved	IPY00043215	107	Configuration	If the current configuration has N trunks enabled with N entries in fallback list, setting the number of trunks < N causes download failure.
Resolved	IPY00044905	107	Device Management	After one **m3g_StartH245( )** fails (no event return); using **dev_Disconnect( )** does not return and cannot get any event.
Resolved	IPY00045114	107	Firmware	Incorrect timestamps are displayed in the m3g firmware traces.
Resolved	IPY00044261	107	Firmware	There is a bad video packet that causes firmware crash.
Resolved	IPY00044022	107	Firmware	The timeslot device mapping can not be changed causing issues with mapping E1 channels to the devices.
Resolved	IPY00043807	107	Firmware	Payload type cannot be altered for EVRC, GSM-EFR, and QCELP with video transcoding. Payload type for EVRC, GSM-EFR, and QCELP defaults to 103.
Resolved	IPY00043940	107	Multicast	Multicast fails unless local and remote coder and IP port info are set when calling start media.
Resolved	IPY00044906	107	Multimedia	When transcoding is enabled, audio is missing.
Resolved	IPY00044760	107	RFC2833	When using DTMF detection voice resource with RFC2833, there are missing digits.
Resolved	IPY00043494	107	RFC2833	The application receives multiple IPMEV_TELEPHONE_EVENT events from the same incoming RFC2833 digit. Ethereal trace shows only one RFC2833 event.
Resolved	IPY00041911	89	3G-324M	SQCIF is not supported as **m3g_OpenLC( )** returns M3GEV_OPEN_LC_FAIL event and the firmware displays mismatch errors.
Resolved	IPY00042184	89	Firmware	The firmware will crash when enabling tone clamping on the party device. Enabling tone clamping on the conference device will have no effect since it isn't being propagated to the party device.
Resolved	IPY00041175	89	Firmware	There are multiple compiler warning messages coming from dlgctypes.h.

Issues Sorted by Type, Dialogic® Multimedia Software for AdvancedTCA Release 2.0

Issue Type	Defect No.	SU No.	Product or Component	Description
Resolved	IPY00042176	89	Media Toolkit	The firmware may stop responding when using **sm_AddOverlays( )** to simultaneously replace an overlay while adding a new one when there are already the maximum number of overlays on the device.
Resolved	IPY00042097	89	Media Toolkit	Replacing an existing image overlay with **sm_AddOverlays( )** will fail when the max number of overlays are already applied to the device.
Resolved	IPY00041270	89	Multimedia	If media stream is not stopped and started, Iframes will be generated on 5 second intervals. If the stream is connected to a device between one of these intervals, the device receiving the stream will not get the Iframe until the next interval is reached.
Resolved	IPY00040965	89	Shelf Management	When starting service with dlstop/dlstart, there's intermittent failures. Use command ipmitool sdr elist to determine if IPMC or MMC is communicating. SBC FRU Hot Swap | 8Ah | ok | 160.96 | Transition to M4 AMC FRU Hot Swap | 8Ch | ok | 193.96 | Transition to M4 If the results do not display as shown above, unplug and replug the board. If the system fails multiple times, RMA the board.
Resolved	IPY00040996	89	SIP	SDP is lost when the stack fails TCP call and switches to UDP.
Resolved	IPY00039390	89	SNMP	The ipmsHwResetEntireCard OID does not work. The OID is located in the ipms_Atca_Hardware.mib.
Known	IPY00041135		3G-324M	Audio quality on configurations connecting AMR Linear MM->IPM->IPM->3G produce a lower than acceptable PESQ score. This configuration should not be used. Use Native connection to 3G to terminate 250 3G endpoints.
Resolved	IPY00041008		3G-324M	Video transcoding settings of frame rate, bit rate and image size do not take effect on the 3G-324M interface, as they have been permanently set to QCIF image size, bit rate of 40 kbps and a maximum frame rate of 15 fps for interoperability with 3G handsets.
Known (permanent)	IPY00041573		Audio	Asymmetric audio codecs are not supported on the Dialogic® Multimedia Platform for AdvancedTCA.
Known	IPY00043268		CLI	When user issues `conf system ipmedia stop` CLI command, the PSTN link does not go down.
Known	IPY00042921		CLI	When user issues `conf system ipmedia stop` command followed by `conf system ipmedia start` command, it results in startup Fault. ***Workaround:*** Execute a dlstop/dlstart.
Known	IPY00041197		CLI	The cliagent will randomly crash on the logout action when using scripts to communicate with the cliagent. It will need to be restarted using the dlservices command.

Issues Sorted by Type, Dialogic® Multimedia Software for AdvancedTCA Release 2.0

Issue Type	Defect No.	SU No.	Product or Component	Description
Known	IPY00037480		CLI	When accessing the CLI, the three built-in accounts (acctmgr, admin, and craft) are not working. After the password is entered, the login prompt is returned instead of the cli prompt. ***Workaround:*** (1) Use root/public as username/password. This account will grant access to the CLI. (2) Create a new username/password combination and renew this combination every 90 days so it does not expire.
Known	IPY00037163		CLI	There appears to be sporadic crashes of the CLI at random times. ***Workaround:*** Restart the CLI agent by issuing the "dlservices cliagent start" command and then login to the CLI again.
Known	IPY00042260		Conferencing	Adding an audio only IP party to a video conference results in no audio from the conference to the IP endpoint. ***Workaround:*** When connecting the audio only IP endpoint to the video conference, use **dev_connect( )** instead of **dev_portConnect( )**.
Known	IPY00041958		Conferencing	When removing parties from a conference and placing them into a new conference while playing/recording video, the audio continues to record but the video stops recording.
Resolved	IPY00041085		Conferencing	When sending Conf_GetConfList message on a conference with no parties added, the firmware does not return a response.
Known (permanent)	IPY00037292 IPY00043594		Conferencing	The conferencing party attribute "DTMF clamping" is overwritten by conference level attribute when the party is removed and added back into the same conference.
Known	IPY00042693		DTMF	There are occasional issues with detecting sequential same double dialed digits if the off time is below 50ms. DTMF off time should be a minimum of 50ms or greater to guarantee detection of sequential same digits.
Known (permanent)	IPY00041593		DTMF	RFC2833 cannot be dynamically changed due to the DSP configuration. Any other RFC2833 payload type besides 101 will result in no digits received at all. RFC2833 only supports payload type 101. ***Workaround:*** The payload type must be set prior to start media.
Resolved	IPY00040945		Fax	Fax tests are failing 10% over PSTN.
Known	IPY00044096		Firmware	The CDMA rate reduction mode, which is set in the IP Media Library API, is not currently supported. The only value that can be set for rate reduction in the IPM_AUDIO_CODER_OPTIONS_INFO structure is 0.
Known	IPY00043970		Firmware	When some phones (i.e. GrandStream) send only mode A packets for H.263, the Pstreams tend to overflow and produce poor results.

Issues Sorted by Type, Dialogic® Multimedia Software for AdvancedTCA Release 2.0

Issue Type	Defect No.	SU No.	Product or Component	Description
Known	IPY00042203		Firmware	If the file format is not set properly in **mm_Record( )**, it can lead to firmware segmentation fault.
Known	IPY00041734		Firmware	When using QCELP with 2fpp, the PESQ scores are lower than acceptable.
Known	IPY00041546		Firmware	Video frames larger than 16k will be truncated while being recorded or played back from the MM device. During encoding, the IPM device will truncate video frames larger than 40k.
Known	IPY00041049		Firmware	When using QCELP with 3fpp, the PESQ scores are lower than acceptable.
Known	IPY00041009		Firmware	When using EVRC with 2fpp, the PESQ scores are lower than acceptable.
Resolved	IPY00040854		Firmware	If you attempt to use more video transcoding resources than are licensed, there is no error messages indicating you've exceeded licensable resources in IPM, DML, or MM. The firmware then stops responding properly, and dlstop/dlstart must be called to restore the system to a usable state.
Resolved	IPY00041176		Library	Setting transparent mode via the **gc_SetConfigData( )** function does not work.
Known	IPY00042219		Media Toolkit	Setting the overlay position via justification does not work. The pixel equivalents of the defines are used instead. ***Workaround:*** Pixel or percentage coordinates can be used to position the overlay.
Known	IPY00043783		Multimedia	With transcoding (H.263 to H.263 with MPEG4) enabled, it results in poor video quality.
Known	IPY00042249		Multimedia	When running multiple **mm_Play( )** and **mm_Record( )** operations in the same MM-3G connection, audio and video sync issues appear on the files recorded for second loop.
Known	IPY00042149		Multimedia	User I/O on MM device is not supported.
Known (permanent)			Multimedia	For high video quality, it is recommended that you use an external file server for multimedia play/record.
Known	IPY00044651		OA&M	The Dialogic® software uses INTEL_DIALOGIC variables, such as INTEL_DIALOGIC_INC and INTEL_DIALOGIC_LIB. These variables provide a standardized way of referencing directories that contain header files and shared objects. If these variables are deleted or not used, your system may not function properly.
Known	IPY00045518		PSTN	The Dialogic® Multimedia Platform for AdvancedTCA does not support SF (Super Frame) T1 framing.
Known	IPY00042923		PSTN	PSTN interfaces not in use have valid framing. These interfaces should not have a signal.

Issues Sorted by Type, Dialogic® Multimedia Software for AdvancedTCA Release 2.0

Issue Type	Defect No.	SU No.	Product or Component	Description
Known	IPY00040177		RTC	When running RTC, there is incorrect termination Reason status returned with play/record complete events. RTC is not supported for linear codec.
Known (permanent)	IPY00039394 IPY00039397		Shelf Management	The ipmsHwAmcMMCVersion OID displays UnKnOwN for the RTM and AMC. The OID is located in the ipms_Atca_Hardware.mib.
Resolved	IPY00039393		Shelf Management	The PJ serial number for licensing purposes must be obtained by looking on the original packing material or removing the board from the slot viewing the sticker on the AMC.
Known	IPY00039392		SNMP	The ipmsHwChassisSlotLocation OID does not work. The OID is located in the ipms_Atca_Hardware.mib.

Documentation Updates 3

The documentation updates for Dialogic® Multimedia Software for AdvancedTCA Release 2.0 are divided into the following sections, which correspond to the top level categories used on the online documentation navigation page:

3.1 System Release Documentation

This section contains updates to the following documents (click the title to jump to the corresponding section):

- Dialogic® Multimedia Software for AdvancedTCA Release 2.0 Release Guide

3.1.1 Dialogic® Multimedia Software for AdvancedTCA Release 2.0 Release Guide

There are currently no updates to this document.

3.2 Installation and Configuration Documentation

This section contains updates to the following documents (click the title to jump to the corresponding section):

- Dialogic® Multimedia Blade for AdvancedTCA Technical Product Specification

3.2.1 Dialogic® Multimedia Blade for AdvancedTCA Technical Product Specification

Update to Chapter 3.0, Getting Started.
The following new section should be added to the chapter:

High Channel Density Requirements

The following requirements are applicable in high channel density environments.

Increasing System Shared Memory Size

Systems using Dialogic® software licenses that have more than 120 instances of a single resource type require an increase in the Linux operating system shared memory size to 64 MB or more.

To display the current shared memory size setting, use the following command:

```
more /proc/sys/kernel/shmmax
```

To increase the size to 64 MB, use the following command:

```
sysctl -w kernel.shmmax=65536000
```

To make the setting persistent across reboots, add the kernel.shmmax=65536000 variable to the /etc/*sysctl.conf* file.

Update to Chapter 3.0, Getting Started.
The following new section should be added to the chapter:

Preserving Data in User Configuration Files

Configuration settings unique to your environment can be preserved and re-applied whenever a Dialogic® Multimedia Software for AdvancedTCA Software license is changed or reactivated.

Previously, customized settings in the *.config* file were lost every time a new Service Update was installed or a new software license was activated, and had to be re-entered.

A new file called the user configuration file, *Hmp.Uconfig*, is introduced. This file, which has the same format as the *.config* file, contains the parameters and parameter values that differ from the default that are used in your environment.

Rather than editing the generated *.config* file, you create a separate *Hmp.Uconfig* file in the *data* directory under INTEL_DIALOGIC_DIR, the environment variable for the directory in which the Dialogic® Multimedia Software for AdvancedTCA is installed. The contents of the *Hmp.Uconfig* file are not overwritten, but are merged into the generated configuration file whenever a new Service Update is installed or a new software license is activated. You should also make a copy of the *Hmp.Uconfig* file and save it in a safe location as a backup.

Example

The following is a sample *Hmp.Uconfig* file, where the default AGC setting has been changed and a new parameter has been added:

```
[encoder]
SetParm=0x400,0   !AGC Enabled (1=Enable, 0=Disable)

[0xe]
SetParm=0xb17,4   !QFC3_ PrmResponseTimeout default 3 seconds
```

The following is a sample merged *HMP.config* file (the generated file). It shows the new AGC setting in the [encoder] section followed by the default value for AGC, introduced by "!^". It also shows a new parameter in [0xe], introduced by the "!<add>".

```
[encoder]
SetParm=0x400,0   !AGC Enabled (1=Enable, 0=Disable)
!^SetParm=0x400,1 !AGC Enabled (1=Enable, 0=Disable)

[0xe]
...
!<add>
SetParm=0xb17,4   !QFC3_ PrmResponseTimeout default 3 seconds
!</add>
```

Setting Transparent Mode

To configure transparent mode on a system wide basis, add the following section to the Hmp.Uconfig file. Set the parameter to 1 to enable transparent mode on all PSTN channels and to 0 to disable transparent mode on all PSTN timeslots. Default is disabled.

```
[0x5a]
SetParm=0x1221,   1  ! 0 = normal, 1 = 3G clear channel mode
```

Update to Section 4.8, Configuring PSTN Trunks and Clock Fallback.

The following note should be added.

The Dialogic® Multimedia Platform for AdvancedTCA does not support SF (Super Frame) T1 framing.

Update to Section 5.3.3, Changing the SNMP Listening Port.

The SNMP listening port in the example should be changed from 166 to 2005. Typically ports 1-2000 are for system use.

Update to add new Section 5.3.4, Changing the Trap Listening Port.

This should be added following Section 5.3.3, Changing the SNMP Listening Port.

The default trap listening port is 162. To change this port, use the dlservices command:
dlservices snmp trapport <value>

3.3 Programming Libraries Documentation

This section contains updates to the following documents (click the title to jump to the corresponding section):

- Dialogic® 3G-324M API Programming Guide and Library Reference
- Dialogic® Conferencing API Library Reference
- Dialogic® Conferencing API Programming Guide
- Dialogic® Device Management API Library Reference
- Dialogic® Fax Software Reference
- Dialogic® Global Call API Library Reference
- Dialogic® Global Call API Programming Guide
- Dialogic® Global Call IP Technology Guide
- Dialogic® IP Media Library API Programming Guide and Library Reference
- Dialogic® Media Toolkit API Library Reference
- Dialogic® Multimedia API Programming Guide and Library Reference
- Dialogic® Multimedia File Conversion Tools User Guide
- Dialogic® Standard Runtime Library API Library Reference
- Dialogic® Standard Runtime Library API Programming Guide
- Dialogic® Voice API Library Reference
- Dialogic® Voice API Programming Guide

3.3.1 Dialogic® 3G-324M API Programming Guide and Library Reference

There are currently no updates to this document.

3.3.2 Dialogic® Conferencing API Library Reference

There are currently no updates to this document.

3.3.3 Dialogic® Conferencing API Programming Guide

Update to **Section 8.1.2, Required Libraries**.

The following note is applicable to this section:

When compiling an application, you must list Dialogic® libraries before all other libraries such as OS libraries.

3.3.4 Dialogic® Device Management API Library Reference

There are currently no updates to this document.

3.3.5 Dialogic® Fax Software Reference

A new version of the Dialogic® Device Management API Library Reference is available on the documentation bookshelf.

3.3.6 Dialogic® Global Call API Library Reference

Update to the **gc_SetConfigData( )** function to support echo cancellation.

The **gc_SetConfigData( )** function allows you to enable or disable echo cancellation on a PSTN channel basis using the Dialogic® Global Call API. Use **gc_GetConfigData( )** to query its current value for a given line device (channel basis).

The following definitions are used for enabling and disabling echo cancellation:

```
Set ID: CCSET_DM3FW_PARM
Parm Id: CCPARM_ECHOCANCEL
Valid Values: CCDM3FW_PARMECHOCANCEL_DISABLE 0x0
              CCDM3FW_PARMECHOCANCEL_ENABLE 0x1
```

The target type is GCTGT_CCLIB_CHAN, where the target value is the linedev handle.

Using the CCSET_DM3FW_PARM set ID and the new echo cancellation defines, the application can set up the PSTN channels with echo cancellation capability. These echo cancellation values can be combined as a bitmask to create the following modes of echo cancellation.

Parameter ID	Value	Description
CCDM3FW_PARMECHOCANCEL_DISABLE	0x0	No echo cancellation
CCDM3FW_PARMECHOCANCEL_ENABLE	0x1	Echo cancellation enabled

Following is an example of how to enable echo cancellation:

```
...
GC_PARM_BLKP echo_blkp = NULL;
int req_id;
...


/* insert parm by value */
if ( gc_util_insert_parm_val( &echo_blkp, CCSET_DM3FW_PARM,
CCPARM_ECHOCANCEL, sizeof( char ),
(char)(CCDM3FW_PARMECHOCANCEL_ENABLE)) != GC_SUCCESS )
{
     sprintf(str, "gc_util_insert_parm_val(CCSET_DM3FW_PARM,
CCPARM_ECHOCANCEL, sizeof( char ),
     (char)CCDM3FW_PARMECHOCANCEL_ENABLE) Failed");
      printandlog(index, GC_APIERR, NULL, str, 0);
      exitdemo(1);
}
/* Enable Echo Cancellation */
if (gc_SetConfigData(GCTGT_CCLIB_CHAN, port[index].ldev, echo_blkp, 0,
```

```
GCUPDATE_IMMEDIATE, &req_id, EV_ASYNC) != GC_SUCCESS) {
     sprintf(str, "gc_SetConfigData(GCTGT_CCLIB_CHAN, targetID:0x%x,
mode:EV_ASYNC Failed",
     port[index].ldev);
     printandlog(index, GC_APIERR, NULL, str, 0);
     exitdemo(1);
}
/* delete parm blk */
...
```

Update to the **gc_SetConfigData( )** function to support transparent mode.

The **gc_SetConfigData( )** function, which supports the Global Call Real Time Configuration Management (RTCM) feature, now allows the configuration of transparent mode on a PSTN channel basis at runtime. When transparent mode is **enabled**, there is no processing on the front end data coming in from the PSTN network before passing it to the TDM bus, nor is there any processing of data being transmitted to the PSTN network from the TDM bus. The default setting is transparent mode **disabled**.

Note: This feature is supported only on Dialogic® Multimedia Platform for AdvancedTCA applications and not with any other products that use Global Call.

The **gc_SetConfigData( )** function uses a GC_PARM_BLK structure that contains the configuration element. The GC_PARM_BLK is populated using the **gc_util_insert_parm_val( )** function. To enable/disable transparent mode, the following setID/parmID pair is used:

CCSET_DM3FW_PARM is the setID

CCPARM_TRANSPARENTMODE is the parmID, with values:

- CCDM3FW_TRANSPARENTMODE_DISABLE
- CCDM3FW_TRANSPARENTMODE_ENABLE

The size of the parameter is a char or UINT8.

Once the GC_PARM_BLK has been populated with the desired values, the **gc_SetConfigData( )** function can be issued to perform the configuration. Use the target type GCTGT_CCLIB_CHAN.

To configure transparent mode on a system wide basis, you can add a parameter to the *Hmp.Uconfig* user configuration file. For more information, see Section 3.2.1, “Dialogic® Multimedia Blade for AdvancedTCA Technical Product Specification”, on page 28.

Update to the **gc_GetAlarmConfiguration( )** function (GCAMS).

Not supported for the Dialogic® Multimedia Platform for AdvancedTCA.

Update to the **gc_SetAlarmConfiguration( )** function (GCAMS).

Not supported for the Dialogic® Multimedia Platform for AdvancedTCA.

3.3.7 Dialogic® Global Call API Programming Guide

Update to the **gc_GetAlarmConfiguration( )** function (GCAMS).
Not supported for the Dialogic® Multimedia Platform for AdvancedTCA.

Update to the **gc_SetAlarmConfiguration( )** function (GCAMS).
Not supported for the Dialogic® Multimedia Platform for AdvancedTCA.

3.3.8 Dialogic® Global Call IP Technology Guide

Update to the **gc_GetAlarmConfiguration( )** function (GCAMS).
Not supported for the Dialogic® Multimedia Platform for AdvancedTCA.

Update to the **gc_SetAlarmConfiguration( )** function (GCAMS).
Not supported for the Dialogic® Multimedia Platform for AdvancedTCA.

Update to **Section 4.3.2, Setting Coder Information**.
In Table 2, "Coders Supported for Dialogic® Host Media Processing (HMP) Software," the following note should be added:

- Global Call supports AMR-NB and EVRC coders in third-party call control (3PCC) mode only. These coder types cannot be explicitly set using the Dialogic® Global Call API, but can be specified using the IP Media Library (IPML) API.

See the documentation updates in Section 3.3.10, "Dialogic® IP Media Library API Programming Guide and Library Reference", on page 33 of this Release Update for more information on using these coders in 3PCC mode.

3.3.9 Dialogic® Global Call SS7 Technology Guide

This document (05-2274-006) is now available on the documentation bookshelf.

3.3.10 Dialogic® IP Media Library API Programming Guide and Library Reference

A new version of the Dialogic® IP Media Library API Programming Guide and Library Reference is now available on the documentation bookshelf. This document replaces the former IP Media Library API Programming Guide and the IP Media Library API Library Reference.

3.3.11 Dialogic® Media Toolkit API Library Reference

There are currently no updates to this document.

3.3.12 Dialogic® Multimedia API Programming Guide and Library Reference

A new version of the Dialogic® Multimedia API Programming Guide and Library Reference is now available on the documentation bookshelf. This document replaces the former Multimedia API Programming Guide and the Multimedia API Library Reference.

3.3.13 Dialogic® Multimedia File Conversion Tools User Guide

There are currently no updates to this document.

3.3.14 Dialogic® Standard Runtime Library API Library Reference

Update to **sr_getfdcnt( )** and **sr_getfdinfo( )** functions (IPY00045054).

The following caution should be added for **sr_getfdcnt( )** and **sr_getfdinfo( )** functions:

- The application must call **sr_getfdcnt**( ) and **sr_getfdinfo**( ) before calling any other Dialogic® API, if the application wants to use SELECT to retrieve SRL events on Linux.

3.3.15 Dialogic® Standard Runtime Library API Programming Guide

There are currently no updates to this document.

3.3.16 Dialogic® Voice API Library Reference

Update to DX_XPB data structure.

The DATA_FORMAT_RAW value is added. For details, refer to Recording Raw Bit Stream Using Voice Device section in Post-Release Developments chapter.

3.3.17 Dialogic® Voice API Programming Guide

There are currently no updates to this document.

3.4 Remote Control Interfaces Documentation

This section contains updates to the following documents (click the title to jump to the corresponding section):

- MSML Media Server Software User's Guide

3.4.1 MSML Media Server Software User's Guide

There are currently no updates to this document.

3.5 Demonstration Software Documentation

This section contains updates to the following documents (click the title to jump to the corresponding section):

- Dialogic® 3G-324M Multimedia Gateway Demo Guide
- Dialogic® Global Call API Demo Guide
- Dialogic® Multimedia Demo Guide

3.5.1 Dialogic® 3G-324M Multimedia Gateway Demo Guide

There are currently no updates to this document.

Note: A new version (05-2643-002) is now available on the documentation bookshelf. See the Revision History section of the document for a description of the changes.

3.5.2 Dialogic® Global Call API Demo Guide

There are currently no updates to this document.

3.5.3 Dialogic® Multimedia Demo Guide

There are currently no updates to this document.