

Dialogic.

**Dialogic[®] IP Media Server
Release Notes**

Release 3.0.0-100928A

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Dialogic® IP Media Server 3.0.0-100928A Release Notes

These release notes provide information about Patch Release 3.0.0-100928A of the Dialogic® IP Media Server, including a summary of new features, issues resolved since Release 3.0.0, and known limitations. Please note that the Dialogic® IP Media Server also is referred to herein via one or more of the following terms: “IP Media Server,” “Media Server,” “IPMS.”

For detailed information about installing and configuring the Dialogic® IP Media Server, refer to the *Dialogic® IP Media Server Installation and Operations Guide*; for detailed information about developing applications for the Dialogic® IP Media Server, see the *Dialogic® IP Media Server Application Developer’s Guide*; for detailed information about activating your IP Media Server license, see the *Dialogic® IP Media Server License Activation Guide*.

Please direct any questions or inquiries to Dialogic Technical Services and Support at +1 (781) 433-9600 or americas.support@dialogic.com

New Features in Release 3.0.0-100928A

None

New Features in Release 3.0.0

The following features have been added in Dialogic® IP Media Server Release 3.0.0.

Video Transcoding and Transrating

Video transcoding is the process of converting video media from one video codec type to another (for example, from H.264 to H.263) between two endpoints to suit the requirements of the device at each endpoint. Transcoding involves decoding and encoding each frame of a video stream.

In the process of transcoding, features such as frame rate conversion, bit rate control, image resizing, and text overlay can be applied. These features are not applicable if video transcoding is not being used.

Video transrating adjusts the number of video frames per second between two endpoints to suit the requirements of the device at each endpoint.

Bit rate control limits the video input bit rate to a lesser value at the output while applying the algorithms to control video quality.

Image resizing converts video from one image size to another (for example, from CIF to QCIF) between two endpoints to suit the requirements of the device at each endpoint.

Note: Use of video transcoding in connection with the IP Media Server requires an advanced video license from Dialogic. Please refer to the *Dialogic® IP Media Server Application Developer's Guide* for further information regarding video transcoding and transrating, including a list of video codecs currently supported by the IP Media Server's video transcoder.

Video Text Overlay with VoiceXML 2.0

Text overlay provides the ability to take one or more text strings and place them over a video stream, resulting in a single video output stream. The text is overlaid in real time, and can use varying fonts, in various sizes and colors. For example, an interactive menu or display corporate information can be created as a text overlay over a video stream. The text can be word wrapped and/or scrolled horizontally and vertically within a pre-defined text box window. Additionally, the transparency level of the text boxes can be set, ranging from being fully opaque to fully transparent or levels in between.

Text overlay functionality is supported with VoiceXML 2.0.

Please refer to the *Dialogic® IP Media Server Application Developer's Guide* for further information regarding this feature.

RTSP Client Functionality

The IP Media Server supports the Real Time Streaming Protocol (RTSP), as defined in RFC 2326. RTSP is a network control protocol used by RTSP clients to control streaming media servers. The RTSP client stack (not server stack) is included with the IP Media Server.

The RTSP Client stack allows SIP endpoints to receive multimedia from RTSP Servers without having to incorporate the RTSP functionality within the SIP client. Examples of applications for RTSP include large-scale broadcasts, video voice-mail, and audio/video-on-demand streaming. The IP Media Server as a RTSP client can control playback of media using pause, fast forward, and rewind commands; however, the IP Media Server does not support the RTSP record functionality.

RTSP functionality is supported by the IP Media Server with VoiceXML 2.0.

Please refer to the *Dialogic® IP Media Server Application Developer's Guide* for further information regarding this feature.

Command Line Interface

The IP Media Server has a command shell to enable configuring and troubleshooting. This shell is referred to as the Command Line Interface (CLI). IP Media Server administrators access the CLI by a Secure Shell (SSH) or a Local teletypewriter (TTY).

The CLI allows IP Media Server administrators to develop monitoring and configuration management scripts using tools such as Tool Command Language (TCL), Perl, and Expect. In addition, the CLI provides controlled access to the underlying software and hardware components.

Please refer to the *Dialogic® Command Line Interface Reference Guide* for further information regarding this feature.

IETF RFC 3261 Compliant SIP Stack and SIP over TCP

The IP Media Server provides an integrated IETF RFC 3261 compliant SIP stack. This excludes functioning as either a SIP registrar or a SIP proxy. The SIP feature set is unchanged with the exception of the addition of SIP over TCP support; all SIP features supported by IP Media Server Release 2.6 are supported in Release 3.0.0. The IP Media Server is compliant with requirements for working with a SIP registrar or a SIP proxy.

Video Fast Update

The IP Media Server provides a Video Fast Update (VFU) mechanism based on RFC 5168. The IP Media Server will generate RFC 5168 VFUs whenever it begins a recording containing video, to request the remote video transmitter to insert an IFrame in the video

stream with which to start the recording. The IP Media Server will also generate an IFrame in response to a received RFC 5168 VFU request, but only if the video session associated with that request is using video transcoding when the request is received.

Please refer to the *Dialogic® IP Media Server Application Developer's Guide* for further information regarding this feature.

Upgrading from Previous Releases

Important Note: After completion of the upgrade to IP Media Server Release 3.0.0-100928A, the WebUI Admin password will have been reset to <blank>. You should change your password immediately after initial login; see “Changing Administrator Password” in the “Installation and Operations Guide”.

If you are upgrading to Release 3.0.0-100928A from an existing installation of a previous version of the Dialogic® IP Media Server, please refer to the *Dialogic® IP Media Server Upgrade from Release 2.6 to 3.0 on Red Hat Enterprise Linux Platforms* documentation for the upgrade instructions.

Note: If you are currently running a version of the Dialogic® IP Media Server earlier than Release 3.0, you must first upgrade your system to Release 3.0 before upgrading to release 3.0.0-100928A.

Note:

Important Note: Before upgrading to IP Media Server Release 3.0.0-100928A, there are required Red Hat packages that must be installed. For a list of such packages, please refer to the *Dialogic® IP Media Server Release 3.0.0 Installing Red Hat Enterprise Linux 5.2 for the Dialogic® IP Media Server* documentation.

Note:

Important Note Regarding Red Hat EL 5.0 Update 2:

The following packages **MUST** be installed on the IP Media Server if running Red Hat EL5.0 Update 2 in order to address an Operating System issue.

kernel-2.6.18-128.1.6.el5.i686.rpm

kernel-devel-2.6.18-128.1.6.el5.i686.rpm

kernel-headers-2.6.18-128.1.6.el5.i386.rpm

As part of the IP Media Server upgrade process, command shell scripts are provided that enable you to back up and restore necessary file systems. The upgrade documents and command shell scripts are available by contacting Dialogic Technical Service and Support.

Supported Platforms

The Dialogic® IP Media Server is distributed in two forms:

An integrated server, including a hardware platform based on the Dell R410 server or the Intel TIGW1U NEBS-Compliant Server and preinstalled Dialogic® IP Media Server software.

- The standard configuration of the integrated Dialogic® IP Media Server that currently ships on the Dell R410 Server with Release 3.0.0 installed has the following specifications:
 - Dual Quad Core Intel Xeon E5530, 8MB Cache, 2.4 GHz, 1066 MHz FSB
 - 73GB 15k RPM Serial-Attached SCSI 3Gbps 3.5
 - 8GB 667 MHz (4x2GB) Dual Ranked DIMMs
 - Red Hat Enterprise Linux 5.2
- The standard configuration of the integrated Dialogic® IP Media Server that currently ships on the Intel TIGW1U NEBS-Compliant Server with Release 3.0.0 installed has the following specifications:
 - Dual Quad Core Intel Xeon L5410, 2x6MB Cache, 2.33 GHz, 1066 MHz FSB
 - 73GB, SAS, 2.5"
 - 8GB DDR2-667 FBDIMM ECC
 - Red Hat Enterprise Linux 5.2

Note: The MS-10A, MS-10B, MS-20A, and MS-20B hardware platforms, based on the Intel SR1300 and Intel SR2300, are no longer available for purchase.

A software-only releases for installation on an existing hardware platform meeting the standard specifications for the integrated server and running Red Hat Enterprise Linux 5.2.

Issues Resolved

The following known issues in the Dialogic® IP Media Server (which is referred to below as “IP Media Server”, “Media Server”, or “IPMS”) have been resolved as of Release 3.0.0.

Issues Resolved in Release 3.0.0-100928A

The following known issues relating to the Dialogic® IP Media Server (referred to in the table below as “IPMS”) have been resolved in Release 3.0.0-100928A.

Functional Area	Description
Media Processing	Resolved an issue where the IP Media Server may not release a session when receiving a SIP Bye message under load. (CQ91038)
	Resolved an issue where the IP Media Server mserv process would core under load (CQ91338)
	Resolved an issue where audio/video sync would be off by 500 msec under load. (CQ91240, CQ91218)
	Resolved an issue where video sessions would hang when playing 30 videos or more simultaneously. (CQ91074)
	Resolved an issue where the IP Media Server can't playback recorded videos when a call session is established using H.264 and a prompt is played before the recording. (CQ91070)
	Resolved an issue where the conversion of audio/video recordings to a 3GP container would cause the mserv process to core dump. (CQ91029)
	Resolved two issues where a single quote was not being handled properly in both a header session variable and in a diversion header session variable. (CQ 91309 and CQ 91762)
	Resolved an issue where when a call is terminated by the far end during a recording, the record duration field was returned as -1. (CQ91557)
	Resolved an issue where the IPMS was not generating an MSCML response after receiving a <stop /> request during a <play/> operation with infinite duration.(CQ55669)
SIP	Resolved an issue where the SIP Command Queue would not get re-initialized causing possible transmissions of incorrect messages. (CQ55724)
	Resolved an issue where the Radvision stack could leak memory due to improper deletion of Radvision messages leading to SIP 408 timeouts when calls are attempted.(CQ 55841)
	Resolved an issue where if the MAXBR parameter is present in the SDP of the INVITE received, the IPMS sends an invalid parameter in the subsequent 200 OK response (CQ91166)

Functional Area	Description
	Resolved an issue where if the SDP o= line is not formatted correctly, sipd would core dump.(CQ55661)
	Resolved an issue where terminating a conference control leg would not terminate the entire conference. (CQ55660)
	Resolved an issue where sipd would core dump when /etc/hosts is incorrectly configured. (CQ55659)
	The default H.264 profile-level-id is now set to 1.3 when not represented in the initial SDP offer. The configuration /etc/snowshore.cfg configuration parameter, “H264DefaultProfileLevelID”, can now be used to define this default behavior. (CQ55709)
	The location of the SDP c= line will now mimic the location in the SDP offer for inbound calls. For late media and outbound calls the location of the SDP c= line will now use the SDPconnectInSession configuration parameter in the /etc/snowshore.cfg file. (CQ90912)
	There is now a configuration parameter, “ShortContactHdr”, in the /etc/snowshore.cfg configuration file that will allow for configurable content of the SIP Contact Header. Please contact Customer Support for more detail if this needs to be changed from the default value.
	Resolved an issue where the maximum size of the SIP request URI was limited to 256 chars. The maximum size of the request URI is now 2048 chars.
	Resolved an issue where the user parameter of the SIP request URI was limited to 20 chars. The maximum size of the user parameter of the request URI is now 256 chars. (FR5482)
	RFC4240 Compliance. For Network Announcement Service, if the early= parameter is not specified, the IP Media Server will now default to early media enabled. (FR5479)
	Resolved an issue where the “Repeat” parameter is ignored in NETANN when early media is disabled. (CQ91474)
	Resolved an issue where the IP Media Server would delay disconnecting a call approximately 4 to 5 seconds after completing a TTS play. (CQ55817)
Logging	Resolved an issue with logging where multiple threads would cause our log client to core. (CQ 55899)

Issues Resolved in Release 3.0.0

The following known issues relating to the Dialogic® IP Media Server (referred to in the table below as “IPMS”) have been resolved in Release 3.0.0.

Functional Area	Description
SIP	The IPMS will now send annexb=no in the SIP 200ok for Late Media Invites if the configuration parameter, “ <i>SDPLmG729AnnexB=0</i> ”, is set in the snowshore.cfg configuration file. (CQ54717)
	Resolved an issue where a complex codec license will remain allocated when changing media from the initial complex codec to any other codec. (CQ54849)
	Per RFC3261, the IPMS now responds with either sendrecv, recvonly, sendonly, or inactive when the offered SDP contains the direction attribute sendrecv. (CQ54309)
Media Processing	Resolved an issue where an RTP packet received on a Conference Control Leg would cause the mserv process to acquire 100% CPU utilization. (CQ54704)
	Resolved an issue where the “extradigittimer” value was ignored for a <playcollect> when the “maxdigits” parameter was set to an even value and the last 2 digits entered were the same. (CQ82238)
VoiceXML 2.0	Resolved an issue where the VoiceXML 2.0 browser would improperly escape certain characters within a URL string, which would result in failed script and file fetches from the IPMS. (CQ54792)
	Resolved an issue where the VoiceXML 2.0 browser would fail when sending a POST within a subdialog. (CQ54950)
	Resolved an issue where a Transfer with an invalid destination address would throw a ‘network_busy’ event instead of the correct event, ‘error.connection.baddestination’. (CQ54852)
OA&M	Resolved an issue where the IPMS WebUI would add invalid spaces in the ipms_callctrl.cfg configuration file. Before being resolved, this would cause the SR140app to fail initialization. (CQ55021)
	Resolved an issue where if the License Features WebUI page was left open, the automatic refresh of the WebUI data would leak a Linux file handle. (CQ54726)

Known Issues and Limitations

The following are known issues and limitations relating to the Dialogic® IP Media Server (referred to in the table below as “IP Media Server”) Release 3.0.0-100928A.

Functional Area	Description
Announcement Service	The maximum value of the "repeat" URI parameter for announcements is 250. If a larger value is supplied, only 250 repetitions will occur and the duration timer will not limit the announcement.
Apache	The Apache parameter MaxClients is currently set to 310.
Backup/Restore	The backup function does not back up the current user database. After a restore, the database will remain the same as it was prior to the restore.
Console	The following message might appear on the console of the IP Media Server: <p style="text-align: center;">NFS mount version older than kernel</p> This does not interrupt operation of the system, and can be ignored.
Error Messages	The error code contained in MSCML responses may not always indicate a failure (4XX) when the request does not conform to the MSCML grammar. This scenario does not cause issues for the IP Media Server, but it may make application debugging more difficult.
	If establishing sessions using a complex codec (e.g., G.726, G.729ab) on the EDP-10 processing card of the IP Media Server, be aware that it takes about one (1) minute for the card to initialize after the rest of the IP Media Server is up and running. If calls that require a complex codec are placed during this one (1) minute initialization period, the following SIP response will be returned: 480 BUSY HERE.
	The Fido process may generate a core dump during normal process termination due to an issue in a standard Linux library. This has been observed to occur infrequently and is not harmful because the process is being shut down. (brkt-4161)
Interoperability	Conference participants using certain Cisco phones may hear a click at regular intervals if the session timer is set on both the IP Media Server and the phone. Disabling the Session Timer on the IP Media Server is an acceptable workaround.
Logging	In VXML, the transferred calls do not show up on the statistics page of the IP Media Server Web UI. (brkt-3509)
	It is possible during MS Accounting operations that msAccountingLogOverallMax and msAccountingLogIntervalMax could be different values in

Functional Area	Description
	sample entry when msAccountingLogOverallMax is first viewed. (CQ54482)
Media Processing	The IP Media Server supports an RFC-1890 compliant version of G726-32 with a payload as specified in ITU-T Recommendation I.366.2 Annex E. This is the reverse of what is currently specified in RFC-3551 for G726-32. (brkt-6180)
	The IP Media Server does not support CNG tone clamping within a conference. (CQ53860)
MSCML	A maximum of 16 direct URL references can appear in an MSCML <play>, <playcollect> or <playrecord> request. However, these direct references can expand to a URL list, so the effective limitation is 250 prompts in a single request using this indirect method. A SIP request would look like: sip:annc@MS_IP; play=http://appserver.carrier.net; prompt=afterhours The IP Media Server first retrieves the sequence of URLs from the application server and then fetches the audio files. The audio file list must include the URL scheme and the full path to the files. (brkt-3444)
	The IVR and MSCML play queue that can be encased within the <prompt> and </prompt> keywords can only be 16 files deep. (CQ 54271)
MRCPv2	The IP Media Server has been qualified against a third party MRCPv2 server for test-to-speech (TTS) and Automatic Speech Recognition (ASR) services. A threshold of MRCP resource usage can be met, which may lead to MRCP server latency, socket corruption and/or other effects. These effects on the MRCP server can result in instability within the IP Media Server MRCPv2 client that may in turn result in a segmentation fault. Proper profiling should be carefully considered while estimating capacity requirements for a given solution.
Networking	During a software update to a Red Hat Enterprise Linux ES 4.0 system, the IP Media Server may lose network connectivity. In this rare event, reboot the IP Media Server.
	If the following command is entered: ssh -l maint MS_IP the connection is closed right away (TCP socket goes away). This issue does not happen under Red Hat Enterprise Linux. A workaround is to regenerate the public and private ssh host key files. (brkt-5965)
SIP	The IP Media Server does not support sequential late media re-INVITEs with hold SDP. (brkt-4905)
	The call-id is currently limited to 63 characters. (brkt-4952)
	The IP Media Server requires at least one m= line in an SDP body. (brkt-4996).

Functional Area	Description
	<p>The IP Media Server SIP implementation limits the size of some header fields to conserve memory, even though the SIP specification does not have such a limitation. The SIP RFC does not dictate maximums for these fields. This is planned to be addressed in a future release of the IP Media Server. (brkt-5016)</p>
	<p>The IP Media Server does not respond to messages that have missing or malformed required header fields. This includes, but is not limited to, the TO and FROM headers. (brkt-5124)</p>
	<p>The total length of the string passed from SIPD to VXML is limited to 1024 bytes. This string includes the request-URI portion of the request line, the user name portions of the from and to headers, the content of the top-most diversion header, the entire "to" and "from" headers (including parameters), the call-id, the audio and video codecs, the hostname, the port value of the audio RTP destination, and keywords. (brkt-5399)</p>
	<p>H.263 video is offered by the IP Media Server for late media invites when "Offer Video Codec" is configured to "None." A workaround is to manually edit the IP Media Server configuration file and change the line "SDPVideoCodec=" to "SDPVideoCodec=None". (brkt-6428)</p>
	<p>The sipd application may dump core after kickstart installation. This issue does not occur after the Web UI is used to configure the network interfaces. (brkt-6350)</p>
	<p>Based on the "Media Server Availability via SIP Options" feature, the application/media_server_usage+xml Content-Type might return a packet larger than the negotiated MTU size. (CQ53885)</p>
	<p>An Early Announcement will return a 404 status code when 1+ errors exist in CGI/URI file lists (CQ53928)</p>
Video	<p>It is not possible to have a video-only recording session with the IP Media Server. This is the case even if the silence timeout is disabled. (brkt-3837)</p>
	<p>If an original INVITE message does not have a video SDP section, and video SDP is then added in a re-INVITE message, the IP Media Server fails to create a video stream. This issue has been observed only with the eyeBeam softphone, and that softphone has a configuration option that sends the video SDP in the original INVITE. (brkt-6380)</p>
VoiceXML	<p>The IP Media Server erroneously shows the message "cmp-proxy cannot be started" during startup. Upon login, the cmp-proxy is shown as running. (brkt-5687)</p>
	<p>In VoiceXML 2.0, if a requested file does not exist, no badfetch error is generated. (brkt-6376)</p>

