

TANDBERG

150 MXP

Software Release Notes

Software Version L5.0

D50505 revision 1.0

November 2007

TABLE OF CONTENTS

SOFTWARE RELEASE NOTES FOR TANDBERG 150 MXP VERSION L5.0	4
Introduction	4
New Features	4
<i>Video</i>	4
<i>Network</i>	4
<i>Usability</i>	5
<i>Conferencing</i>	7
Supplemental Notes	9
<i>Software Filenames</i>	9
<i>Getting the Software</i>	9
<i>Installation</i>	9
<i>References</i>	9
Changes and Improvements since Previous Version	10
<i>Usability</i>	10
<i>Network</i>	11
<i>API</i>	12
Known Limitations.....	13
<i>Tandberg</i>	13
<i>Aethra</i>	14
<i>Lifesize</i>	14
<i>Polycom</i>	14
<i>Sony</i>	15
Interoperability Testing	16
<i>H.323 Gatekeepers/Traversal Servers</i>	16
<i>SIP Registrars/Proxies</i>	16
<i>Gateway Interoperability</i>	16
<i>MCU Interoperability</i>	16
<i>Streaming Servers</i>	17
<i>Endpoint Interoperability</i>	17

DOCUMENT REVISION HISTORY

Revision 1.0 Release of L5.0, Initial Version

SOFTWARE RELEASE NOTES FOR TANDBERG 150 MXP VERSION L5.0

Introduction

These release notes describe the features and capabilities included in the TANDBERG 150 MXP software version L5.0 released on 27, November 2007.

Note: Statements and functionality in this document only apply to the TANDBERG 150MXP. Please see the Software Release Document for L series software.

New Features

Video

SIP Dual Streams

The TANDBERG 150 MXP endpoints now support the ability to receive Dual Streams over a SIP connection using the SIP Binary Floor Control Protocol (BFCP), RFC 4582. Support for BFCP will allow for the receipt of dual streams in both point-to-point and multipoint calls and is automatically negotiated upon call connection.

Availability: Available on T150's running L5 or later
Restrictions: Receive Only

Network

Encryption Support within SIP

To ensure the security of SIP calls, L5 includes support of encryption for all SIP call control and media. The transport/call control channel will be encrypted using TLS with a key that is negotiated using the Diffie-Hellman method. All media is then encrypted with AES (Advanced Encryptions Standard) 128kbps using SRTP.

This provides another level of security assurance to all end users connecting over an unsecured link.

Availability: Available on T150's running L5 or later
Restrictions: Requires TLS support within the SIP proxy

Telio SIP

L5.0 software supports the Telio SIP telephone services, which is a subscription-based service that enables customers using the TANDBERG video systems to speak face-to-face with other Telio subscribers.

Availability: Available on T150's running L5 or later
Restrictions: The transfer feature is disabled in Telio mode because of restrictions on the Telio network infrastructure.

Usability

Installation Wizard

To ease the initial setup of a 150 MXP endpoint, an installation wizard has been added to the product. Appearing automatically upon initial startup of the system, the wizard will provide step-by-step assistance with installation of basic aspects of the endpoint, including language, system name, option keys, IP addressing and external management configuration (e.g. TMS), thus allowing most of the administrative configuration changes to be made automatically to the system without requiring the end user to involve complicated menus or administrative settings.

The installation wizard will display automatically on new systems with L5 or later software and if the system is reset to factory defaults.

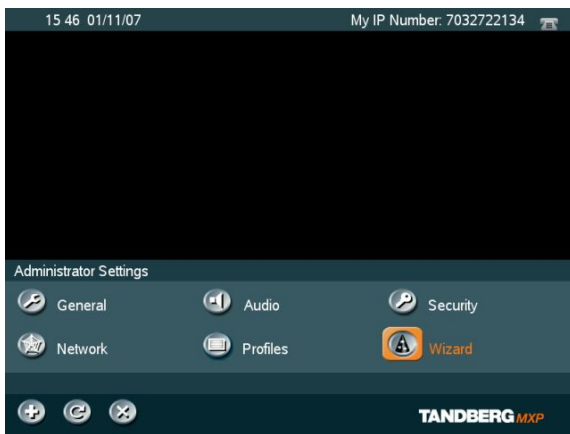


Figure 1: Administrator Settings

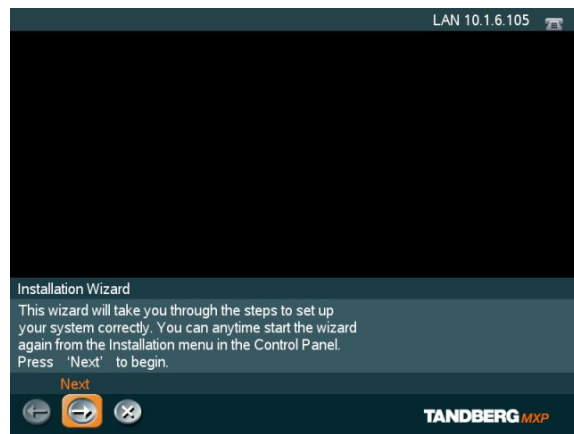


Figure 2: Installation Wizard

- Availability: Available on T150 MXP running L5 or later
- Restrictions: You can only configure the Gatekeeper and CallManager settings if no external manager is selected

System Profiles

To increase the portability and flexibility of the system, the 150 MXP endpoints supports up to 20 system profiles, allowing each individual setting to be customized for specific applications or locations. Profiles allow the system to maintain separate copies of each individual setting to allow end users to switch between these profiles. Profiles are convenient for situations where an endpoint may be shared by several users, switches between several locations or several uses. It is advised to reboot after loading a new profile.



Figure 3: Profile Overview

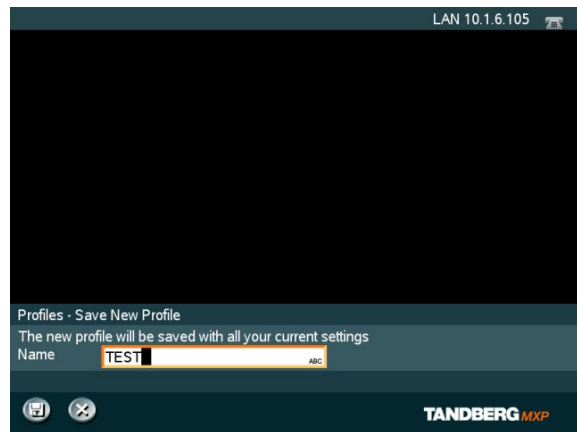


Figure 4: Saving a Profile

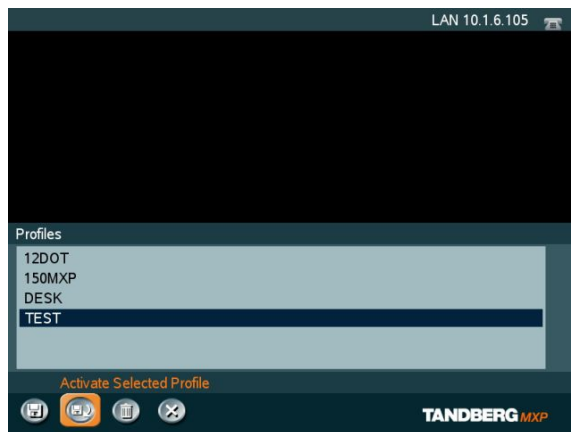


Figure 5: Profile Overview After New Profile Saved

Availability: Available on T150 MXP running L5 or later
 Restrictions: None

Conferencing

MultiWay (Beta)

In conjunction with the TANDBERG Gatekeeper and MPS, the 150 MXP now support MultiWay, a unique ad-hoc conferencing feature for the TANDBERG solution. MultiWay provides automatic escalation of an ongoing conference to a MPS MCU when the existing resources of the endpoint are exhausted. Since the 150 MXP does not have embedded MultiSite capabilities, the move to the MPS will happen immediately when a second call connects.



Figure 6: Multipoint Call Options

Availability:	Available on T150 MXP running L5 or later
Restrictions:	In the first release, MultiWay is being considered a 'technology preview' of the concept. Please report any issues or feedback to your TANDBERG maintenance provider Requires a TANDBERG Gatekeeper (software version N5.2 or later) and TANDBERG MPS (software version J3.2 or later) Only supported over H.323 Hold/Resume feature is disabled when using MultiWay

Hold/Resume

The TANDBERG 150 MXP endpoint now supports the ability to place calls on hold, to make or receive another call. When in this mode, it is possible to swap between the two calls.

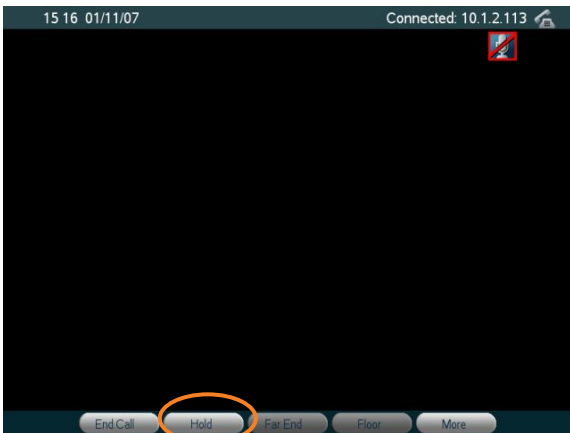


Figure 7: Hold Screen

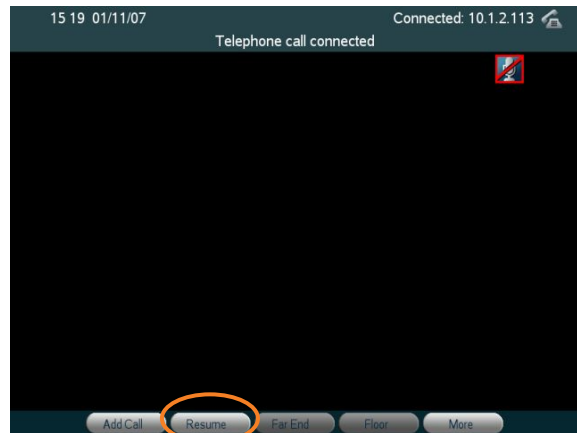


Figure 8: Resume Screen

Availability: Available on T150 MXP running L5 or later

Restrictions: Disabled when in MultiWay mode

Blind Transfer (SIP Only)

The TANDBERG 150 MXP endpoint now supports the ability to transfer your SIP call to another SIP endpoint. The use of speed dials can ease the transfer functionality.

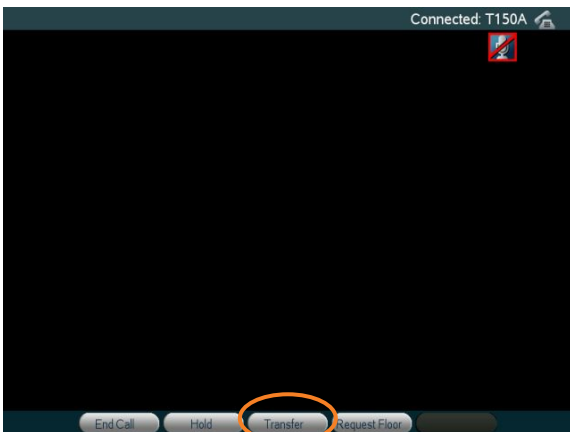


Figure 9: Call Menu Screen

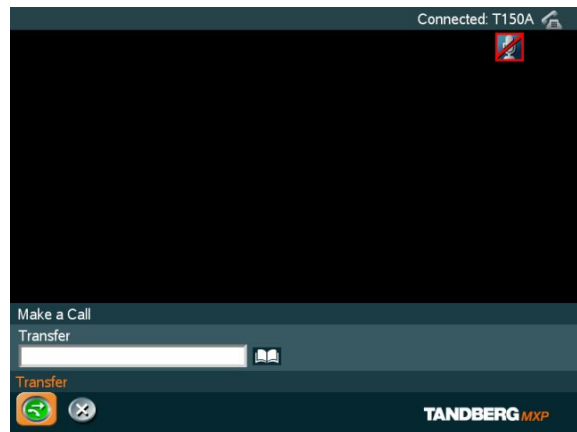


Figure 10: Transfer Screen

Availability: Available on T150 MXP running L5 or later

Restrictions: Sip calls only

Consultative Transfer (SIP Only)

The TANDBERG 150 MXP endpoint now supports the ability to place you current SIP call on hold; and call the 3rd party before you transfer your SIP call to another SIP endpoint. The use of speed dials can ease the transfer functionality.

- Availability: Available on T150 MXP running L5 or later
- Restrictions: Sip calls only

Supplemental Notes

Software Filenames

All MXP endpoints use the same software files. The correct software filenames are listed in the following table.

TANDBERG MXP Systems	Software	Serial Number Range
All systems that support AES Encryption	s51000lxx.pkg	All
All systems that do not support AES Encryption	S50001lxx.pkg	All

Getting the Software

Customers should contact their TANDBERG maintenance provider for support and assistance with their TANDBERG products, including release keys and software files. Upgrading to L5.0 will require the full L5.0 pkg file and a release key specific to the TANDBERG MXP endpoint to be upgraded.

Installation

Installation of L5.0 software can be accomplished through the local LAN via HTTP or FTP.

Note: HTTP software upgrade was made available in L4.0.

References

- TANDBERG Website <http://www.tandberg.com>
- TANDBERG FTP Site <http://ftp.tandberg.com>

For all documentation, please see the TANDBERG Support Website at <http://www.tandberg.com/support/documentation.php>

Changes and Improvements since Previous Version

Usability

Logo (Welcome Screen)/Banner

L5.0 now allows the uploading of a background image in addition to the banner previously supported, thus improving the appearance of an idle system. The banner should take the filename of 'banner.png' (previously logo.png), while the background image filename should be either 'logo.jpg' or 'logo.png'. Both the logo and the banner can be uploaded to the 150MXP through the web interface or the embedded ftp server.

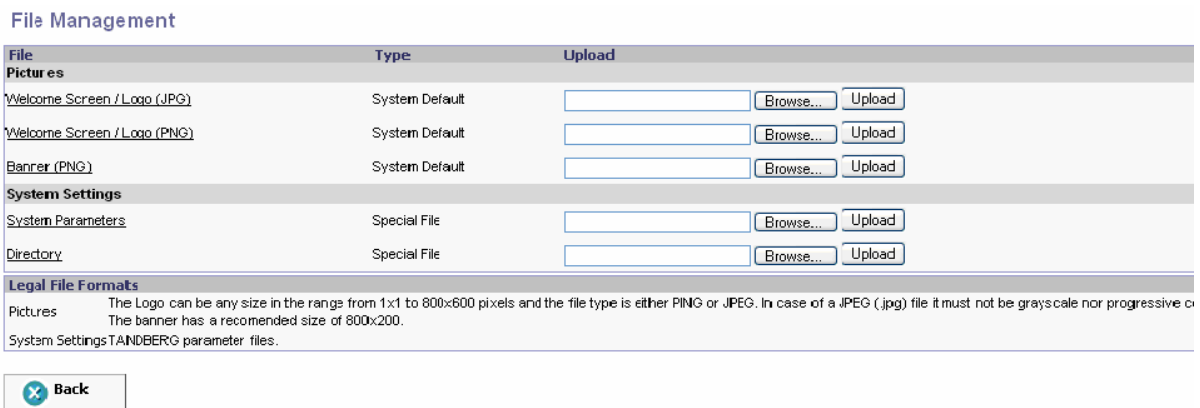


Figure 11: Logo/Banner Screen

Telnet

The "Telnet Server Off/On" setting has been added to the user interface in L5.0 under the following menus: 'Network' > 'IP Services' > Telnet Server Off/On.

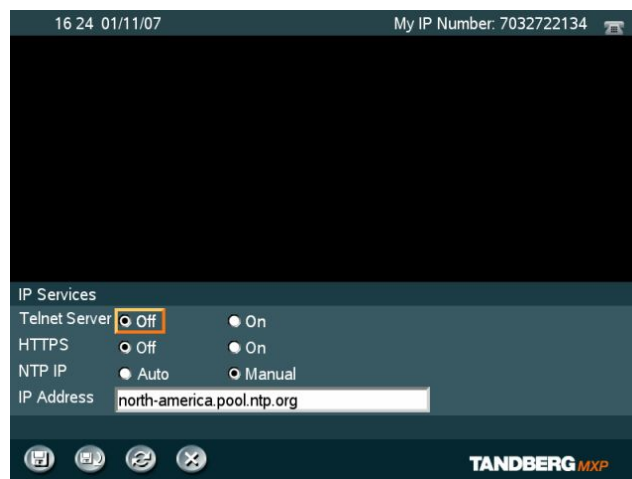


Figure 12: IP Services

Network

Enhanced SIP Support

In L5.0, new settings for SIP server type have been added. The following server types are now available: Auto, Nortel, Microsoft, Cisco, Alcatel, Telio, and Experimental. New settings for Transport type have also been added to L5. The following Transport types are now available: Auto, TCP, UDP, and TLS.



Figure 13: SIP Settings

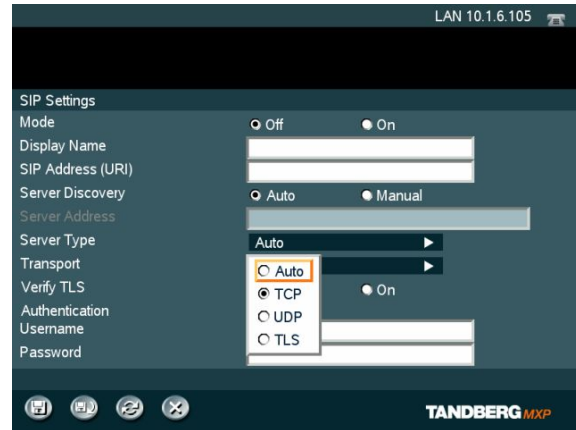


Figure 14: SIP Settings

IP (DHCP)

Improvements were made when handling option 242 within the DHCP response. Previously, this option would conflict with the Avaya IP telephony system and cause an unexpected restart.

In previous software, the DHCP discovery would timeout if it didn't receive a response from the DHCP server. The T150 will now continuously ping, until it receives a DHCP server response.

SIP

The following RFC's are supported within the L5.0 software release:

- RFC 1889 RTP: A Transport Protocol for Real-time Applications
- RFC 2190 RTP Payload Format for H.263 Video Streams
- RFC 2327 SDP: Session Description Protocol
- RFC 2396 Uniform Resource Identifiers (URI): Generic Syntax
- RFC 2429 RTP Payload Format for the 1998 Version of ITU-T Rec. H.263 Video (H.263+)
- RFC 2617 Digest Authentication
- RFC 2782 DNS RR for specifying the location of services (DNS SRV)
- RFC 2833 RTP Payload for DTMF Digits, Telephony Tones and Telephony Signals
- RFC 2976 The SIP INFO Method
- RFC 3016 RTP Payload Format for MPEG-4 Audio/Visual Streams
- RFC 3047 RTP Payload Format for ITU-T Recommendation G.722.1
- RFC 3261 SIP: Session Initiation Protocol
- RFC 3262 Reliability of Provisional Responses in SIP
- RFC 3263 Locating SIP Servers
- RFC 3264 An Offer/Answer Model with SDP
- RFC 3311 UPDATE method
- RFC 3361 DHCP Option for SIP Servers
- RFC 3420 Internet Media Type message/sipfrag
- RFC 3515 Refer method
- RFC 3550 RTP: A Transport Protocol for Real-Time Applications
- RFC 3581 Symmetric Response Routing

- RFC 3605 RTCP attribute in SDP
- RFC 3711 The Secure Real-time Transport Protocol (SRTP)
- RFC 3840 Indicating User Agent Capabilities in SIP
- RFC 3890 A Transport Independent Bandwidth Modifier for SDP
- RFC 3891 The SIP "Replaces" Header
- RFC 3892 Referred-By Mechanism
- RFC 3960 Early Media
- RFC 3984 RTP Payload Format for H.264 Video
- RFC 4028 Session Timers in SIP
- RFC 4145 TCP-Based Media Transport in the SDP
- RFC 4566 SDP: Session Description Protocol
- RFC 4568 SDP: Security Descriptions for Media Streams
- RFC 4574 The Session Description Protocol (SDP) Label Attribute
- RFC 4582 The Binary Floor Control Protocol
- RFC 4583 Format for Binary Floor Control Protocol (BFCP) Streams
- RFC 4585 Extended RTP Profile for RTCP-Based Feedback
- RFC 4587 RTP Payload Format for H.261 Video Streams
- RFC 4629 RTP Payload Format for ITU-T Rec. H.263 Video
- RFC 4796 The Session Description Protocol (SDP) Content Attribute
- draft-ietf-xcon-bfcp-connection-04.txt
- draft-levin-mmusic-xml-media-control-03.txt
- draft-ietf-sipping-cc-transfer-06.txt
- draft-kristensen-avt-rtp-h264-extension-00.txt

Note: SIP is not supported under the Dual IP stack of IPv4/IPv6. If "Both" is selected for the IP protocol then SIP will operate over IPv4.

API

AutoAnswer

In L5 software, the autoanswer device can now be set to Handset, Headphones or Speaker. This can be configured through the API using the following command:

```
xConfiguration AutoAnswer Device: <Handset/Headphones/Speaker>
```

Known Limitations

Tandberg

Ref #	Equipment	Limitations
43314	TANDBERG 150 MXP Ver L5.0 (Profiles)	Profile names with spaces will not appear in the Profile list. To resolve, please use names without spaces (e.g. 'TestProfile' or 'Test.Profile').
N/A	TANDBERG 150 MXP Ver L5.0 (MultiWay)	Currently MultiWay calls may fail when using DES encryption to TANDBERG MPS ver J3.x. This is resolved in the J4 release for the TANDBERG MPS.
46544	TANDBERG 150 MXP Ver L5.0 (Multiway)	Currently MultiWay is not available when registered to the TANDBERG VCS.
N/A	TANDBERG 150 MXP Ver L5.0 (Hold/Resume)	When MultiWay is enabled, Hold/Resume are disabled for H.323
41573	TANDBERG 150 MXP Ver L5.0 (SIP)	It is possible that the first attempt at transferring a encrypted call will not work properly. In order to resolve, please attempt the operation again. The functionality will be improved in a later software version.
47821	TANDBERG 150 MXP Ver L5.0 (SIP)	In order to make an encrypted SIP call, you need a TLS connection to a SIP proxy. Please make sure you either have: a) set SIP transport to Auto and have TLS enabled on your SIP server. b) set SIP transport to TLS and have TLS enabled on your SIP server. In either case, make sure you have Verify TLS set to Off, unless you have uploaded a certificate for the SIP proxy to the endpoint).
47692	TANDBERG 150 MXP Ver L5.0 (API)	The PCPort API command that was added in L4.2 has been removed. This will be re-added in a later release.
48492	TANDBERG 150 MXP Ver L5.0 (API)	The 'IPconfig' command is misspelled. The command in the current API is 'IFconfig'. This will be fixed in a later release.
47767	TANDBERG 150 MXP Ver L5.0 (API)	When you have an telnet session open and place a call into the unit. There is no indication in the telnet session that the call came in and connected.
46445	TANDBERG 150 MXP Ver L5.0 (SIP H.239)	The Call Status menu does not display the proper received video protocol when receiving 'XGA' as the H.239 source in SIP mode. This is a reporting error; the video being received is, in fact, XGA format.
46445	TANDBERG 150 MXP Ver L5.0 (SIP H323)	The Call Status menu does not display the proper received video format when receiving 'XGA' as the H.239 source. This is a reporting error; the video being received is, in fact, XGA format.

48457	TANDBERG 150 MXP Ver L5.0	While in a call, continuing to press the volume button after it is maxed, will toggle the MIC mute function.
48458	TANDBERG 150 MXP Ver L5.0 (Multisite Calls)	If the T150 joins a Multisite call with the speaker active, if you switch to the headset after connection, your mic will be muted. The mic mute button will no laminate, but the icon will appear on the screen.

Aethra

<i>Ref #</i>	<i>Equipment</i>	<i>Limitations</i>
N/A	VegaStar Silver Ver 6.0.49 (SIP Hold/Resume)	The Hold/Resume feature does not currently work with the VegaStar. You are able to place the call on hold, but will be unable to resume the call. You will need to disconnect and place call again

Lifesize

<i>Ref #</i>	<i>Equipment</i>	<i>Limitations</i>
48055	LifeSize Room Ver 3.0.0 (H.323 Hold/Resume)	The Hold/Resume feature does not currently work with the Lifesize Room. Placing a call on hold locks the Lifesize up, with a frozen image. The Lifesize will need to be rebooted.
48057	LifeSize Room Ver 3.0.0 (SIP)	Currently the transfer feature does not work with the Lifesize room.

Polycom

<i>Ref #</i>	<i>Equipment</i>	<i>Limitations</i>
24428	Polycom VSX Ver 8.7	The T150 MXP does not receive video from VSX7000 at 64 Kbps. The VSX7000 chooses to send the G.722 algorithm, which requires 64k worth of bandwidth.
N/A	Polycom HDX Ver 2.0.0.1 (SIP)	Currently the transfer feature does not work with the HDX System.
24428	Polycom EX/FX Ver 6.0.5 (H.323)	The T150 MXP does not receive video from EX/FX at 64 Kbps. The EX/FX chooses to send the G.722 algorithm, which requires 64k worth of bandwidth.
N/A	Polycom EX/FX Ver 6.0.5 (H.323)	The Hold/Resume feature does not currently work with the EX/FX. You are able to place the call on hold, but will be unable to resume the call. You will need to disconnect and place call again.
N/A	Polycom V500 Ver 8.5.3 (SIP)	Currently the transfer feature does not work with the V500.

Sony

<i>Ref #</i>	<i>Equipment</i>	<i>Limitations</i>
N/A	PCS –TL50 Ver 2.41 (SIP)	The Hold/Resume feature does not currently work with the PCS-TL50. You are able to place the call on hold, but will be unable to resume the call. You will need to disconnect and place call again.
N/A	LifeSize Room Ver 3.0.0 (SIP)	The Hold/Resume feature does not currently work with the PCS-TL50. You are able to place the call on hold, but will be unable to resume the call. You will need to disconnect and place call again.

Interoperability Testing

The following systems have been tested and verified compatible with this software release.

H.323 Gatekeepers/Traversal Servers

<i>Equipment</i>	<i>Software Revision</i>	<i>Comments</i>
TANDBERG Video Communication Server	X1.1, X1.0	Both Assent and H.460.18/.19 traversal technologies supported.
TANDBERG Gatekeeper	N5.2 ,N5.1, N4.1	
TANDBERG Border Controller	Q5.2, Q5.1, Q3.1	Both Assent and H.460.18/.19 traversal technologies are supported
Cisco MCM/IOS Gatekeeper	12.3(10)	
RADVISION ECS	4.1.0.0	

SIP Registrars/Proxies

<i>Equipment</i>	<i>Software Revision</i>	<i>Comments</i>
TANDBERG Video Communication Server	X1.1, X1.0	
Microsoft LCS	2.0.5470.0	
OpenSER	1.1.0-tls	

Gateway Interoperability

<i>Equipment</i>	<i>Software Revision</i>	<i>Comments</i>
TANDBERG MPS Gateway	J4.0, J3.3, J3.2	
TANDBERG Gateway	G3.2	
RADVISION Gateway	5.0	Encryption is only supported on the H.323 side. This is a limitation of the RADVISION GW. If Encryption is turned on, FECC (Far End Camera Control) will not work from the H.323 side.

MCU Interoperability

<i>Equipment</i>	<i>Software Revision</i>	<i>Comments</i>
TANDBERG MPS	J4.0, J3.3, J2.4	
TANDBERG MCU	D3.11, D3.10, D3.9	
Codian 4210	2.0(1.4), 2.0(1)	
Codian 4505	2.0(1.4)	
Polycom MGC	8.0.0.27, 7.5.1.7	
RADVISION Scopia MCU	5.1.1.0.6	

Streaming Servers

<i>Equipment</i>	<i>Software Revision</i>	<i>Comments</i>
TANDBERG Content Server	S2.3, S2.2, S2.1, S1.1	

Endpoint Interoperability

<i>Equipment</i>	<i>Software Revision</i>	<i>Comments</i>
TANDBERG MXP	F6.1, F6.0, F5.3, F4.2	H.323 and SIP
TANDBERG Personal Series	L5.0, L4.2, L3.1	H.323 and SIP
TANDBERG Movi	2.45.1.3	SIP
TANDBERG Classic	E5.3/B10.3, E4.2/B9.2	H.323 only
TANDBERG Vision	C4.0	
Aethra VegaStar Silver	6.0.49	H.323 and SIP
LifeSize	2.5.2(1)	H.323 only
Microsoft Office Communicator	1.0.559	SIP
Polycom EX	6.0.5	H.323
Polycom FX	6.0.5	H.323
Polycom iPower 9000	6.0.2.1208	H.320 and H.323
Polycom PVX	8.0.2.0235	H.323
Polycom v500	8.5.3	H.323 and SIP
Polycom Viewstation	7.5.4	H.323
Polycom VSX	8.5.2, 8.5.3, 8.7	H.323 and SIP
Sony PCS-1	3.30, 3.41	H.323 and SIP
Sony PCS-TL50	2.31	H.320 and H.323