

# **TANDBERG**

## **3G Gateway R2 Software Release Document**

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TANDBERG

D50436, Rev 1.0

# Table of Contents

<b>1.</b>	<b>DOCUMENT REVISION HISTORY .....</b>	<b>3</b>
<b>2.</b>	<b>RELEASE NOTES FOR TANDBERG 3G GATEWAY SOFTWARE VERSION R2.0.....</b>	<b>4</b>
2.1	INTRODUCTION .....	4
2.2	NEW FEATURE OVERVIEW .....	4
2.2.1	<i>Integration with TANDBERG Video Portal .....</i>	<i>4</i>
2.2.2	<i>New Hardware Option .....</i>	<i>4</i>
2.2.3	<i>Increased Capacity.....</i>	<i>4</i>
2.2.4	<i>SIP Support .....</i>	<i>5</i>
2.2.5	<i>ISUP-SS7 Signaling Support.....</i>	<i>5</i>
2.2.6	<i>MPEG-4 Support.....</i>	<i>5</i>
2.3	SUPPLEMENTAL NOTES TO MANUALS .....	5
2.3.1	<i>Hardware Versions.....</i>	<i>5</i>
2.3.2	<i>References/Related Documents .....</i>	<i>6</i>
2.3.3	<i>Network Support.....</i>	<i>6</i>
2.3.4	<i>Layer 4 Ports Used.....</i>	<i>6</i>
2.4	CHANGES AND IMPROVEMENTS SINCE PREVIOUS VERSION .....	6
2.4.1	<i>RADVISION VialP MCU .....</i>	<i>6</i>
2.4.2	<i>Aethra .....</i>	<i>7</i>
2.4.3	<i>NTP Configuration.....</i>	<i>7</i>
2.4.4	<i>Phone Book.....</i>	<i>7</i>
2.4.5	<i>Service Configuration.....</i>	<i>7</i>
2.4.6	<i>External Manager.....</i>	<i>7</i>
2.4.7	<i>Dialing Unassigned Number .....</i>	<i>7</i>
2.4.8	<i>IVR.....</i>	<i>7</i>
2.5	KNOWN LIMITATIONS .....	7
2.5.1	<i>TANDBERG.....</i>	<i>7</i>
2.5.2	<i>Cisco.....</i>	<i>8</i>
2.5.3	<i>Polycom.....</i>	<i>8</i>
2.5.4	<i>RADVISION.....</i>	<i>8</i>
2.6	INTEROPERABILITY TESTING .....	9
2.6.1	<i>Gatekeepers .....</i>	<i>9</i>
2.6.2	<i>Gateway Interoperability.....</i>	<i>9</i>
2.6.3	<i>MCU Interoperability.....</i>	<i>9</i>
2.6.4	<i>Endpoint Interoperability .....</i>	<i>9</i>
2.6.5	<i>Mobile Phone Interoperability .....</i>	<i>10</i>

# 1. Document Revision History

Rev 1.0 - Release of R2.0, Initial Version

## 2. Release Notes for TANDBERG 3G Gateway Software Version R2.0

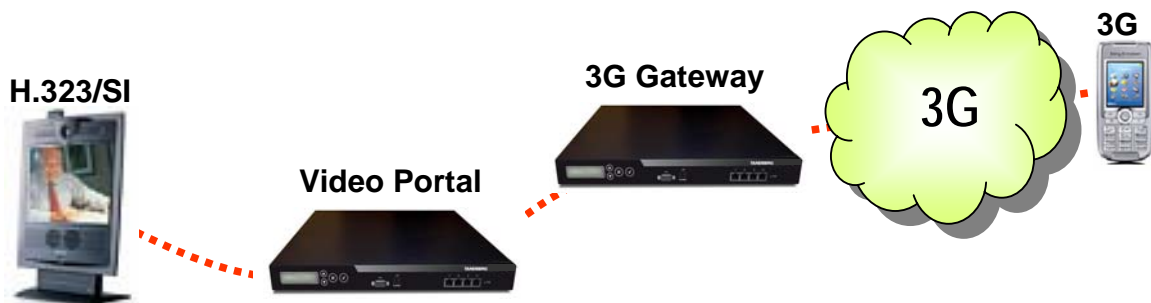
### 2.1 Introduction

These release notes describe the features and capabilities included in the TANDBERG 3G Gateway software version R2.0 released on 19 May 2006.

### 2.2 New Feature Overview

#### 2.2.1 Integration with TANDBERG Video Portal

The TANDBERG 3G Gateway can be directly linked with the TANDBERG Video Portal to provide increased services to the 3G endpoint. In addition to the directory and dialing services the 3G Gateway supports natively, integration with the Video Portal provides a medium for content delivery to the 3G endpoints, allowing the 3G endpoint to both view and record streamed content.



#### 2.2.2 New Hardware Option

The TANDBERG 3G Gateway now supports a factory-installed hardware option to support up to 4 PRIs. This hardware option, combined with software options that will allow for the unlocking of these ports individually, allows for further scalability of the system, without a significant increase in entry cost.

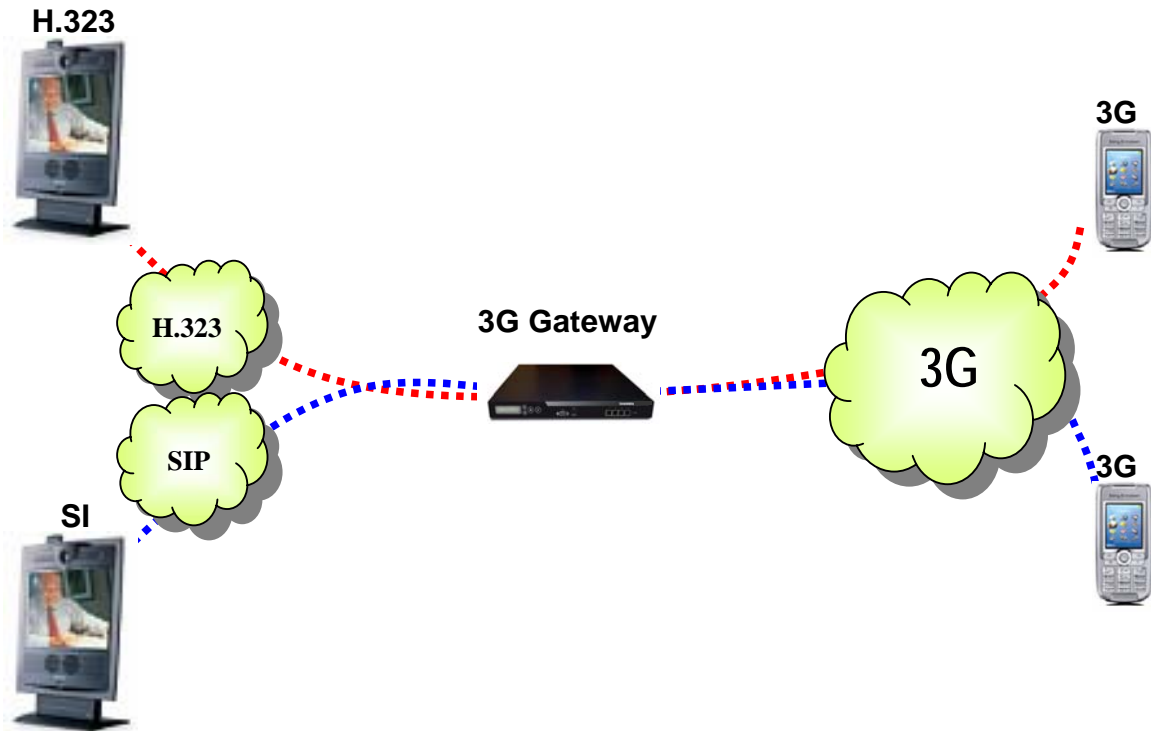
#### 2.2.3 Increased Capacity

In conjunction with the TANDBERG Video Portal, the capacity of the TANDBERG 3G Gateway has now been increased to 120 simultaneous video sessions.

**Note:** the 4xPRI hardware option is required to support the maximum number of calls.

## 2.2.4 SIP Support

With the R2 software release, the TANDBERG 3G Gateway includes baseline SIP support, allowing H.324M endpoints to connect to native SIP endpoints.



**Note:** SIP support is only designed for routing calls between SIP and H.324M endpoints. Although it is possible to configure routes between SIP and H.323 endpoints, this configuration should not be used.

## 2.2.5 ISUP-SS7 Signaling Support

In order to provide redundancy and flexibility to network providers, the TANDBERG 3G Gateway supports ISUP-SS7 ISDN signaling to the H.324M network.

## 2.2.6 MPEG-4 Support

The TANDBERG 3G Gateway supports native MPEG-4 video to H.324M endpoints that also support the MPEG-4 video standard.

## 2.3 Supplemental Notes to Manuals

### 2.3.1 Hardware Versions

The TANDBERG 3G Gateway is available in two different factory-installed hardware options: 1 x ISDN PRI Option, 4 x ISDN PRI Option. The 1 x PRI option allows for a full ISDN PRI to be installed with the system, thereby providing the network for up to 30 (E1) or 23 (T1) concurrent calls. The 4 x PRI Option allows for up to 4 full ISDN PRIs to be installed, allowing for up to 120 (E1) or 92 (T1) simultaneous connections.

**Note:** If from the 1 x PRI option to the 4 x PRI option, please consult your TANDBERG representative.

### 2.3.2 References/Related Documents

TANDBERG Website – <http://www.tandberg.net>

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

See the following documents for more information on the TANDBERG 3G Gateway:

- D13841 TANDBERG 3G Gateway User Manual
- D115196 TANDBERG 3G Gateway Installation Sheet
- D13202 TANDBERG 3G Gateway API Guide

### 2.3.3 Network Support

The TANDBERG 3G Gateway will exist both on an H.323/SIP IP network and an H.324M ISDN network and is designed to connect together the two networks for those protocols only. The H.324M side of the 3G Gateway can connect up to 4 ISDN PRIs, while the H.323/SIP portion is intended to be connected to an 802.3 IP network. Only the first 802.3 IP port is used, the other three are for future development. The 802.3 IP interface on the TANDBERG Video Portal supports auto speed and duplex detection as well as manually setting 100Mbit Full/Half Duplex or 10Mbit Full/Half Duplex. If at all possible, Full Duplex should be used.

**Note:** The 802.3 IP interface on the Video Portal supports 1000Mbit Full/Half Duplex through auto negotiation of the speed and duplex.

### 2.3.4 Layer 4 Ports Used

Function	Port	Type	Direction
Gatekeeper RAS	1719	UDP	↔
Gatekeeper Discovery	1718	UDP	↔
SSH (Includes SCP)	22	TCP	↔
Telnet	23	TCP	↔
HTTP	80	TCP	↔
HTTPS	443	TCP	↔
SNMP (Queries)	161	UDP	↔
SNMP (Traps)	162	UDP	3G Gateway → SNMP Host
NTP	123	UDP	↔
Incoming H.323 Call	1720	TCP	↔
Incoming H.323 RTP	25000-27000	UDP	↔
Incoming H.323 RTCP	25000-27000	UDP	↔

## 2.4 Changes and Improvements since previous version

### 2.4.1 RADVISION ViaIP MCU

Resolved the issue that would cause no video to be received on either an H.324M endpoint or an H.323 endpoint involved in a call with the MCU.

### 2.4.2 Aethra

When connecting an H.324M endpoint to an Aethra VegaStar endpoint, the issue that would cause the H.324M endpoint to not receive video from the Aethra has now been resolved.

### 2.4.3 Cisco

The issue that would cause no audio and video to be transmitted between an H.324M endpoint and an SCCP endpoint registered to Cisco CallManager has been resolved.

### 2.4.4 NTP Configuration

Resolved an issue in which the NTP configuration would not appear in the web interface configuration.

### 2.4.5 Phone Book

Resolved an issue in which selecting the first entry of a phone book on the Directory dial-in configuration would result in a disconnected call.

### 2.4.6 Service Configuration

An issue that would cause all active calls to be disconnected if a new service was added to the 3G Gateway has been corrected.

### 2.4.7 External Manager

The External Manager settings can now be configured via the administrative web interface.

### 2.4.8 Dialing Unassigned Number

If a 3G endpoint dialed a number that was allocated to the 3G Gateway, but not assigned to any specific service, the gateway would connect and display an error "Error Video." The call is now not accepted.

### 2.4.9 IVR

The welcome sound for the IVR has been improved.

## 2.5 Known Limitations

### 2.5.1 TANDBERG

Equipment	Limitations
TANDBERG 3G Gateway ver R2.0	Calls to any service with a poster (IVR and phonebook) do not timeout.
TANDBERG 3G Gateway ver R2.0	The gateway does not currently support Resource Available Indicator (RAI), primarily used to signal when no resources are available.
TANDBERG 3G Gateway ver R2.0	The gateway currently only supports one phonebook from TMS. Adding more than one phonebook will result in no phonebook being displayed.
TANDBERG 3G Gateway ver R2.0	If, within an MPEG-4 call, the control string needs to be adjusted at any point throughout the call to the

	H.324M endpoint, the mobile device will lose video.
TANDBERG 3G Gateway ver R2.0	Although the TANDBERG 3G Gateway will allow an administrator to configure a call route from a SIP endpoint to an H.323 endpoint, this functionality should not be used.
TANDBERG 3G Gateway ver R2.0	The TANDBERG 3G Gateway will only support up to 120 simultaneous connections when used in conjunction with a TANDBERG Video Portal. If a Video Portal is not used, the 3G Gateway will only support up to 30 simultaneous connections.

### 2.5.2 Cisco

Equipment	Limitations
Cisco IPVC 3540 ver 3.2.224	When connecting to the Cisco IPVC 3540 MCU that also has a H.323 endpoint connected locally, the H.323 endpoint will not be able to view the video from the 3G endpoint.

### 2.5.3 Polycom

Equipment	Limitations
Polycom MGC 25/50/100 ver 7.0.2.6	When the 3G Endpoint calls into an active conference on the Polycom MGC, the endpoint will be placed into 'Secondary' mode within the conference, resulting in no video being transmitted or received by either end. Audio will function normally.
Polycom MGC Gateway 25/50/100 ver 7.0.2.6	When connecting a call between a 3G endpoint and an ISDN endpoint through the 3G gateway and the Polycom MGC Gateway, no audio or video will be received by the 3G endpoint. In addition, the ISDN endpoint will not receive any audio and the local video will be looped back.

### 2.5.4 RADVISION

Equipment	Limitations
RADVISION GW-P20 ver 4.0.0.40	When connecting a call from an ISDN endpoint through the RADVISION GW-P20 and TANDBERG 3G Gateway to an H.324M endpoint, no audio or video will be received by the 3G endpoint. In addition, the ISDN endpoint will not receive any audio and the local video will be looped back.

## 2.6 Interoperability Testing

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

### 2.6.1 Gatekeepers

Equipment	Software Revision
TANDBERG Gatekeeper	N1.0, N2.1, N3.2, N4.0, N4.1
TANDBERG BC <sup>1</sup>	Q1.1, Q2.2, Q3.0, Q3.1
RADVision ECS	3.6.0.5
Cisco MCM	12.3(13a)
Polycom PathNavigator	7.00.03

### 2.6.2 Gateway Interoperability

Equipment	Software Revision
TANDBERG Gateway	G2.1, G3.0
RADVision gw-P20	4.0.0.43
Polycom MGC 25/50/100	7.0.2.6
Cisco CallManager	4.1(3)SR2

### 2.6.3 MCU Interoperability

Equipment	Software Revision
TANDBERG MCU	D3.4, D3.5, D3.6
TANDBERG MPS	J1.1, J2.0, J2.1, J2.2, J3.0
Polycom MGC 25/50/100	7.0.2.6
RADVision ViaIP MCU	4.0.31
Cisco IPVC 3540	4.2.10
Codian MCU 4210	1.3(1.4)

### 2.6.4 Endpoint Interoperability

Equipment	Software Revision
TANDBERG MXP	F1.4, F1.5, F2.5, F2.6, F3.2, F4.0, F4.1
TANDBERG 150	L1.1, L1.2, L2.2, L3.1, L4.0
TANDBERG Classic Series	B1.2, B2.4, B3.4, B4.3, B5.1/B5.11, B6.2/E1.2, B7.4/E2.4, B8.4/E3.4, B9.1/E4.1, B10.0/E5.0, B10.1/E5.1
Polycom iPower 9000/970	6.2.0.1208
Polycom iPower 680	6.2.0.1208
Polycom FX	6.0.5
Polycom ViewStation	7.5.4
Polycom MP512	7.5.4
Polycom SP 384	7.5.4
Polycom VSX	8.0.3
Polycom V500	8.0.3
Polycom PVX	8.0.0.0522
Sony PCS-1	3.22
Sony PCS-TL50	2.21
VTEL Galaxy	2.2.0.070
Microsoft NetMeeting	3.01

<sup>1</sup> BC stands for Border Controller.

Aethra VegaStar	6.0.18
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### 2.6.5 Mobile Phone Interoperability

Manufacturer	Model
Fujitsu	F700i, F700iS, F880iES, F881iES, F900i, F900iC, F900iT, F901iC, F901iS
LG	U8110, U8120, U8130, U8138
Mitsubishi	D701i, D900i, D901i, D901iS
NEC	e313, e616, N2101V, N700i, N900i, N900iS, N900iG, N901iC, N901iS, 703N(002), 802N(010), 802N(180), 802N(429)
Nokia	6630, 6680, N70, N90, 702NK2
Panasonic	P2102V, P700i, P900i, P900iV
Samsung	Z100, Z107V
Sanyo	SA700iS
Sharp	SH700i, SH700iS, SH901iC, SH901iS, SH902i, 902SH(108), 902SH(379)
SonyEricsson	V800, W900i, Z1010, 802SE(181), 802SE(124)