

TANDBERG MCU D2.0 Release Notes

TANDBERG

D50188, Rev 1.0

Table of Contents

1.	INTRODUCTION	3
1.1	AUDIENCE FOR THIS RELEASE	3
1.2	SOFTWARE VERSIONS	3
1.3	GETTING THE SOFTWARE	3
1.4	REFERENCES / RELATED DOCUMENTS	3
2.	IMPROVED CONFERENCE FEATURES	4
2.1	IP CONFERENCES	4
2.2	MIXED ISDN/IP/TELEPHONE CONFERENCES	4
2.3	MULTIPLE SIMULTANEOUS CONFERENCES	4
2.4	IMPROVED INTERFACE	4
3.	VIDEO IMPROVEMENTS.....	5
3.1	VIDEO TRANSCODING	5
3.2	XGA TRANSMIT AND RECEIVE	5
3.3	PEOPLE & CONTENT SUPPORT	5
4.	AUDIO IMPROVEMENTS	6
4.1	MOBILE TELEPHONE NOISE SUPPRESSION	6
4.2	G.728 SUPPORT	6
5.	SECURITY UPDATES	7
5.1	AES/DES ENCRYPTION	7
5.2	HTTPS	7
5.3	HTTP DIGEST	7
6.	NETWORK CHANGES	8
6.1	QOS	8
6.2	LAYER 4 PORT USAGE	8
7.	INTEROPERABILITY.....	9
7.1	OTHER VENDOR ENDPOINTS.....	9
7.2	TANDBERG ENDPOINTS.....	9

1. Introduction

This release note is to describe the new features and capabilities included in the TANDBERG MCU software version D2.0 released on 01/20/03 .

1.1 Audience for this release

D2.0 is a major release for the TANDBERG MCU. All users are recommended to upgrade the software in accordance with their particular service plan.

1.2 Software Versions

8 + 8 Version is capable of 8 Video Sites (IP/ISDN) and 8 Telephones

16 + 16 Version is capable of 16 Video Sites (IP/ISDN) and 16 Telephones

All TANDBERG features are supported in the MCU, with no required options for Encryption, Duo Video, or Custom Video Formats

1.3 Getting the Software

Customers should contact their reseller or maintenance provider for support and assistance with their TANDBERG products.

1.4 References / Related Documents

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

See the following documents for more info on the TANDBERG MCU.:

D1291102 TANDBERG MCU User's Guide

D1292502 TANDBERG MCU Technical Description

D1293002 TANDBERG MCU Dataport User's Guide

2. Improved Conference Features

2.1 IP Conferences

The TANDBERG MCU now supports H.323 video calls. Each conference will use a separate E.164 Alias to allow for a distinct dial in number per conference. The MCU IP address can also be used for dial in on conference 1.

Intelligent Packet Loss Recovery (IPLR) is supported to maintain better image quality when traversing real world networks.

D2 will support all TANDBERG features in H.323 calls.

2.2 Mixed ISDN/IP/Telephone Conferences

D2 gives users the capability to create conferences which include ISDN and IP endpoints at the same time.

Continued support for all TANDBERG features in mixed mode conferences.

2.3 Multiple Simultaneous Conferences

Three separate simultaneous conferences are now possible. All TANDBERG features may be used simultaneously and independently in each conference. This allows for a mix of encrypted and unencrypted conferences, as well as no restrictions on the use of Duo Video or any other TANDBERG features.

2.4 Improved Interface

D2 has a new interface which resembles TMS 6 very closely. More intuitive icons and layout make it easier for new users to make use of the full functionality of the bridge.

3. Video Improvements

3.1 Video Transcoding

D2 allows the TANDBERG MCU to transmit the best possible video to each endpoint.

This video transcoding allows for several 768kbps endpoints to be engaged in a video conference and benefit from the 768kbps quality, even if a 128kbps endpoint has joined the conference.

All audio is fully transcoded so that the TANDBERG MCU can be as versatile as possible.

Transcoding is automatically initiated when different rates are detected. It is not necessary to specify the use of this feature in the setup of a conference.

3.2 XGA Transmit and Receive

XGA video will now pass through the bridge. All endpoints must be able to receive XGA to make use of this feature.

3.3 People & Content Support

D2 allows the TANDBERG MCU to transmit Duo Video as *People + Content* to a Polycom iPower. The iPower must be connected via ISDN and the MCU will not receive *People + Content* from the iPower.

4. Audio Improvements

4.1 Mobile Telephone Noise Suppression

To help reduce disruptive noise added by mobile phones, D2 includes a noise suppression feature. Mobile phones have automatic gain control (AGC) to help boost softer spoken speech. In effect this amplifies background noise between words and during times when there is no speech. The TANDBERG MCU automatically detects background noise and lowers its volume.

Before Noise Suppression



After Noise Suppression



4.2 G.728 Support

To support legacy systems, D2 offers a 6 port license for G.728. After 6 endpoints are connected at G.728, the MCU removes G.728 from the capabilities exchange and the remaining codecs are forced to use G.711.

5. Security Updates

5.1 AES/DES Encryption

Support for Secure Conferences using 128 bit AES or 56 bit DES encryption on ISDN and IP. Encryption settings include Auto, DES, and AES. If an encryption method is chosen, only endpoints supporting that method will be connected.

Auto: allows for a mix of AES and DES connections at the same time

AES: all endpoints must support AES (H.233/234/235)

DES: all endpoints must support DES (H.233/234/235)

5.2 HTTPS

The web interface has been built to support HTTPS. HTTPS is disabled by default, and requires a reboot to become active. When HTTP and HTTPS are both active services, users will be redirected from the HTTP page to the HTTPS page. This allows for an automated security enhancement, without changing the way users interface the MCU.

5.3 HTTP Digest

HTTP Digest Authentication allows the client (your PC) to prove to the server (MCU in this case) that it knows the correct password without having to send the password itself to the server. The client does an irreversible computation, using the password and a random value supplied by the server as input values. The result is transmitted to the server who does the same computation and authenticates the client if he arrives at the same value. Since the computation is irreversible, an eavesdropper can't obtain the password.

6. Network Changes

6.1 QOS

Supported QOS features:

- RSVP Support
- Diffserv (Audio, Video, Data, Signaling)
- IP Precedence (Audio, Video, Data, Signaling)
- TOS (Type of Service)

All QoS values for signaling, video, audio and data can be set independent of each other.

6.2 Layer 4 Port Usage

With the addition of IP conferences, new consideration must be made when using the MCU behind firewalls. The following is a port listing which is necessary to make full use of the TANDBERG MCU.

Function	Port	Type	Direction
Gatekeeper RAS	1719	UDP	↔
Gatekeeper Discovery	224.0.1.41:1718	UDP	↔
Q.931 Call Setup	1720	TCP*	↔
H.245/Q.931	Range 5555—5587	TCP*	↔
Video	Range 2326—2837	UDP	↔
Audio	Range 2326—2837	UDP	↔
FTP	21	TCP*	↔
Telnet	23	TCP*	↔
HTTP	80	TCP*	↔
HTTPS	443	TCP	↔
NTP	123	UDP*	← (incoming to codec)
SNMP (Queries)	161	UDP*	↔
SNMP (Traps)	162	UDP	⇒ (outgoing from codec)
Netlog	963	TCP	↔
FTP/data	1026	TCP	↔

7. Interoperability

7.1 Other Vendor Endpoints

Equipment	Software Revision
Polycom IPower 970	4.0.6.909
Polycom IPower 680	4.0.6.909
Polycom FX	4.2 - 27 Aug 2002
Polycom VS	7.2 - 10 Mar 2002
Polycom MP 512	7.2 - 10 Mar 2002
Polycom SP 384	7.2 - 10 Mar 2002
Polycom Via Video	3.0 - 27 Feb 2002
Sony 1600	3.00
Sony 6000	4.00
VCON IP Falcon	V2.0

7.2 TANDBERG Endpoints

Equipment	Software Revision
TANDBERG 500-6000/8000	B1.1
TANDBERG 500-6000/8000	B2.3
TANDBERG 500-6000/8000	B3.4
TANDBERG 500-6000/8000	B4.3
TANDBERG 500-6000/8000	B5.1 / B5.11
TANDBERG 500-6000/8000	B6.1 / E1.1
Vision 5000	C4.0
Vision 2000	B4.2
Vision 600 / 770	B1.3