

TANDBERG

**Codian IP VCR 2200
Series & MSE 8220**

Software Release Notes

Software version 2.3(1.8)

September 2008

Introduction

The TANDBERG Codian IP VCR 2200 Series and MSE 8220 VCR blade version 2.3(1) is a new feature release. This document lists the new features supported in this release and covers the IP VCR 2200 Series and the MSE 8220 blade.

Software version 2.3(1.8) is a maintenance release that fixes a number of bugs that are described in this document.

If you experience any difficulties or unexpected results when using version 2.3(1.8) of the IP VCR 2200 Series or MSE 8220 Media blade, consult the online help documentation for information on using the device, and also the FAQs on the web site before contacting technical support.

Caution: If you are using an MSE 8000, the Supervisor Blade must be upgraded to Release 1.0(1.15) or later before you upgrade the VCR blade to IP VCR Series Version 2.3(1) software.

New features and functionality in 2.3(1)

- ▶ Security
 - HTTPS for secure web access
 - Recording of point-to-point encrypted calls
- ▶ Port licensing for the MSE 8220 VCR blade
- ▶ SIP
 - SIP: dynamic codec selection
 - SIP: out of band DTMF support
- ▶ Ping from web interface
- ▶ Per-call codec selection
- ▶ Gateways
 - Option to use a gateway that has not been pre-defined
 - Non-admin users can add and modify configured endpoints and H.323 gateways
- ▶ Improved auto attendant scrolling and other features
- ▶ New endpoint H.239 receive options
- ▶ Gatekeepers
 - Point-to-point gatekeeper prefixes now per folder
 - New playback prefix for load balancing
 - Display local IP address and port number that IP VCR has registered with gatekeeper
 - Display active registrations with the configured gatekeeper
 - Built-in gatekeeper displays registrant's H.323 ID
 - Use of alternate gatekeeper shown
- ▶ Additional calling bandwidth options
- ▶ 448p resolution forcing

- ▶ Answering incoming calls with folder IDs or recordings IDs
- ▶ Floor and chair control pass through
- ▶ Live streaming viewers shown in Connections list
- ▶ Ability to stop recording from Recording list
- ▶ Index for online help
- ▶ JPEG files for custom banners
- ▶ API changes
- ▶ LED changes

The following sections provide further details about these features.

New feature descriptions

Security

HTTPS for secure web access

In Release 2.3, you can access the web interface of the IP VCR using HTTPS. This is more secure than using HTTP. To use HTTPS, you must install the 'Secure management (HTTPS)' feature key. Note that this feature key is in addition to the 'Encryption' feature key which you might already be using for AES encryption.

To enable HTTPS web access, go to **Network > Services** and enable *Secure web*. The IP VCR has a local certificate and private key pre-installed and this will be used by default when you access the unit using HTTPS. However, we recommend that you upload your own certificate and private key to ensure security because all IP VCRs have identical default certificates and keys. To upload an SSL certificate and private key, go to **Network > SSL certificates**.

Recording of point-to-point encrypted calls

Support for AES media encryption in the IP VCR prior to release 2.3 covered only playing back to H.323 endpoints and recording of calls between the IP VCR and a single H.323 endpoint. In release 2.3, you can now also record point-to-point calls that use encryption.

Note: there is no media encryption support for protocols other than H.323.

Port licensing for the MSE 8220 VCR blade

Release 2.3 introduces support for port licenses on the VCR blade. Port licenses are provided so that you can control the number of ports that are licensed without requiring new hardware (up to the maximum available on a particular blade type). Also you can share the licenses over a number of MSE 8000 blades of the same type to provide redundancy. Finally, you can swap a blade with a spare of the same type as required without needing to change the port license configuration.

Port licenses apply to a particular blade type and therefore you need different license keys for each type of blade; for example, one license key for VCR blades and another for Media blades. For port licensing to operate on your VCR blade, you need to upgrade your Supervisor software to version 1.2(1.2) or later and you will need to have the license keys to hand. To prevent your MSE 8000 suffering any loss of service, acquire the necessary license keys from TANDBERG Codian before starting the upgrade process. TANDBERG Codian has contacted all MSE 8000 customers to ensure everyone has the keys they need.

Note: You can upgrade to version 2.3(1) without port licensing on your current version of the Supervisor software; however, you will need Supervisor software version 1.2(1.2) for port licensing.

SIP

SIP: dynamic codec selection

The 2.3 release no longer restricts the communication between the IP VCR and SIP endpoints to a single configured audio and single configured video codec. The IP VCR now:

- ▶ advertises to SIP endpoints the ability to receive more than one audio codec and more than one video codec
- ▶ accommodates SIP endpoints that change either the audio and /or the video codec part way through the call
- ▶ if necessary can change codec part way through a call to a SIP endpoint

SIP: out of band DTMF support

In Release 2.3, the IP VCR supports RFC2833 for receiving DTMF tones. Some endpoints use out-of-band DTMF tones (sending RTP packets with a special payload type); the IP VCR now recognizes these. This feature means that Microsoft Office Communicator Clients (OCS 2007) can now navigate the auto attendant using DTMF tones (the number keypad).

Ping from web interface

Release 2.3 provides a facility on the web interface for performing a “ping” to a remote device. This can be used to troubleshoot network issues between the IP VCR and a video conferencing device. To perform a “ping”, go to **Network > Connectivity**. For each successful 'ping', the time taken for the ICMP echo packet to reach the host and for the reply packet to return to the IP VCR is displayed in milliseconds (the round trip time). The TTL (Time To Live) value on the echo reply is also displayed. In addition details of the hosts (typically routers) on the route between the IP VCR and the specified remote device are shown, if available.

This is equivalent to the trace route function found in other operating systems.

Per-call codec selection

When configuring an endpoint, or making a call from the IP VCR to a previously-unconfigured address, Release 2.3 enables you to choose a *Custom codec selection* for that endpoint or call. When you have selected to use a custom codec, you can select or unselect any of the audio and video codecs for transmitted and received streams. The custom codec selection overrides the unit-wide settings (on the **Settings > Connections** page) for that endpoint or call.

Custom codecs are also available for both SIP and H.323 endpoints configured on the IP VCR and will be used every time there is a call between the IP VCR and that endpoint (in either direction).

Gateways

Option to use a gateway that has not been pre-defined

In Release 2.3, when calling out from the IP VCR to a previously unconfigured H.323 endpoint, or when configuring an H.323 endpoint, you can specify an H.323 gateway in the address field and that H.323 gateway does not need to be configured on the IP VCR. To configure an E.164 number as needing to be reached through an H.323 gateway, set the address field to be `<gateway address>!<E.164>`.

Non-admin users can add and modify configured endpoints and H.323 gateways

Release 2.3 extends the privileges of users with “Full recording access”. These users are now able to add, modify, or remove configured H.323 gateways and H.323 and SIP endpoints.

Improved auto attendant scrolling

Release 2.3 introduces two features to the auto attendant that are intended to give callers an indication of where they are in the list of recordings and to help them find their recordings, especially on auto attendants where there are many entries:

- ▶ scroll bar: at the bottom right of the auto attendant. This indicates where you are in the list
- ▶ auto attendant list wraps round: the list of recordings now ‘wraps around’ such that when you reach the bottom of the list, if you keep scrolling down you will find yourself at the top of the list again

In addition:

- ▶ you can now use #2 and #8 to jump to the first and last entry in the auto attendant at any time
- ▶ DTMF navigation is preserved when you move to the recording console

New endpoint H.239 receive options

Release 2.3 provides a new *Playback H.239 in main video channel* option in the **Settings > H.239** page. When playing back a recording with this option enabled, the H.239 content is sent to endpoints in the main video channel. This is useful for endpoints that do not support a separate H.239 channel and which otherwise would not be able to display the H.239 content.

Gatekeepers

Point-to-point gatekeeper prefixes now per-folder

The *Point to point incoming prefix* and *Point to point outgoing prefix* have been moved from the **Settings > Gatekeeper** page to each folder's configuration page along with that folder's *Recording ID*, *Recording console ID* and *Auto attendant ID*. Therefore point-to-point recordings can now be made in to any folder. See the online help for further details.

New playback prefix for load balancing

There are new *Play back prefix* and *Deregister play back prefix when all playback ports in use* fields in the **Settings > Gatekeeper** page to facilitate play back load balancing. See the online help for an explanation of load balancing.

Display local IP address and port number that the IP VCR has registered with gatekeeper

In Release 2.3, the Status section of the **Settings > Gatekeeper** page displays the local address and port that the IP VCR has registered with the configured gatekeeper. It displays, for instance, whether the default H.323 port (1720) is registered, or a different value as set on the **Network > Services** page.

Display active registrations with the configured gatekeeper

Release 2.3 introduces a new page for the IP VCR that lists each registration that the IP VCR has made with its configured gatekeeper. For each registration, the type is displayed (for example, E.164) and the status of the registration. This page also displays whether the registration is an H.323 ID for a recording, an auto attendant, the IP VCR, or the IP VCR's service prefix. This page is accessed by clicking details in the Status section of the **Settings > Gatekeeper page**

Built-in gatekeeper displays registrant's H.323 ID

In Release 2.3, the built-in gatekeeper now displays the H.323 ID of each registrant next to the registrant's IP address and port. To display this information, go to **Gatekeeper** and select **Registration view**. If a device has registered multiple H.323 IDs, only the first will be shown here.

Use of alternate gatekeeper shown

The displayed H.323 gatekeeper status in the **Settings > Gatekeeper** page now shows *registered with alternate gatekeeper* when appropriate and this gatekeeper's IP address.

Additional calling bandwidth options

Release 2.3 provides additional bandwidth options for calls out from and in to the IP VCR. These are 1.25Mbit/s and 1.75Mbit/s. The default bandwidths to be used for calls to and from the IP VCR are set on the **Settings > Connections** page. However, for individual calls to and from the IP VCR and for configured endpoints, you can override the unit-wide default bandwidth setting.

448p resolution forcing

In some video conferencing environments, it is necessary to force the use of 448p or w448p video (resolutions of 576 x 448 and 768 x 448 pixels respectively) to those endpoints that are known to work best with these resolutions. Release 2.3 provides a setting to be used in that circumstance. This setting is called *Video resolution selection mode* and is on the **Settings > Connections** page. The options for this setting are:

- ▶ *Default*: The IP VCR will use its normal internal algorithms to dynamically decide which resolution to send in order to maximize the received video quality.
- ▶ *Favor 448p*: The IP VCR will heavily favor sending 448p or w448p video (resolutions of 576 x 448 and 768 x 448 pixels respectively) to those endpoints that are known to work best with these resolutions.

Answering incoming calls with folder IDs or recordings IDs

Previously, *Use recording name as caller ID* on **Settings > Connections** applied only to outgoing calls. With this option checked, calls made from the IP VCR to an endpoint for making new recordings or playing back existing recordings would use the name of the folder (for the recording case) or the recording (for the playback case) as the caller ID. This meant that the endpoint would receive a call from the folder or recording rather than the general, default name ("Codian IP VCR 2240"). However, the general device name was always used when the IP VCR answered a call, so if you dialed directly to a recording to play it back, the endpoint would report a call to "Codian IP VCR 2240" rather than to the recording name.

In Release 2.3, this option now also covers calls made from an endpoint to the IP VCR. This that the same name is used in both incoming and outgoing cases. To reflect this change in functionality, *Use recording name as caller ID* has been renamed to *Use recording or folder name as caller / called ID*. See the online help for more details.

Further related changes arising from the IP VCR not automatically answering all incoming calls with the general device name are:

- calls to a folder's auto attendant are answered with the folder's name if that folder is not the root folder, and with the default name if it is the root folder
- an endpoint making a call to the IP VCR to start a point-to-point recording sees the called ID as the remote device name rather than the IP VCR's name.

The same default name as in earlier versions will be used for all incoming and outgoing calls if *Use recording or folder name as caller / called ID* is unchecked.

Floor and chair control pass through

The IP VCR software now passes through floor and chair control commands when making a point-to-point recording so that endpoints can continue to use floor and chair control facilities when being recorded.

Live streaming viewers shown on Connections list

When a recording is being made, it has an entry in the **Connections** page – previously if you clicked on the recording you saw a number and maximum count of Unicast streaming viewers in the connection details. In release 2.3, these counts are also available in the Connections list.

Ability to stop recording from the Recording list

In addition to stopping a recording from the connections list, admin users and those with “Full recording access” can now click the **stop** link next to an active recording in the Recording list.

Index for online help

The online help accessible from the web interface of the IP VCR now provides an index.

JPEG files for custom banners

Release 2.3 allows you to use a JPEG file for custom auto attendant banners as well as GIF or BMP images.

API changes

Release 2.3 provides a number of new API features. For more information, refer to the latest version of the API document.

LED changes

The IP VCR now shows its IP address on start up (or both IP addresses if Ethernet A and Ethernet B are both in use) on its load level LEDs. It is also shown when Ethernet link level connectivity is lost / restored.

Upgrading software

Using a web browser

1. Unzip the image file.
2. Browse to the current IP address of the IP VCR using an IE-compatible Web browser. Click **Click here to log in** and then **Change log in**.
3. When prompted, type in **admin** for the user name and its associated password (this is blank in a new unit).
4. Go to the **Home > Settings > Upgrade** page.
5. In the Main software image section, type in, or browse to the location of the software image file.
6. Click the **Upgrade software image** button.

The Web browser uploads the file to the IP VCR. This takes some time – dependent on your network connection. Do not move your Web browser away from the Upgrade Software page or refresh this page during the upload process; otherwise, it may abort.

After a number of minutes, the Web browser refreshes automatically and displays “Main image upload completed”. Close this window.

7. Click the **Shutdown button** on the main upgrade page. This option will now change to **Confirm IP VCR shutdown**. Click to confirm.
8. Click the **Restart IP VCR and Upgrade** button. This button only appears in the Upgrade page during this process.

The unit will reboot and upgrade itself – this also takes a number of minutes.

Note: If you have been logged out due to inactivity, log in again as admin and click **Restart IP VCR and upgrade** at the bottom of the Upgrade software page to complete the upgrade.

Using FTP

1. Use an FTP client to connect to the IP VCR – e.g. **ftp <IP VCR IP Address>** from the command prompt.
2. When prompted type in **admin** as the user name and its associated password (this is blank in a new unit).
3. Upload the upgrade file – e.g. **put codian_vcr_2.3(1.8)** from the command prompt.
4. When the upload has completed, reboot the IP VCR to start the upgrade. This can be done using the button on the Upgrade page within the web interface.

Notes

- ▶ In general FTP is more reliable than using the web interface for upgrades
- ▶ The progress of the upgrade can be monitored through the serial port
- ▶ Before upgrading, make sure that the IP VCR is not in use. Anyone using the IP VCR at the time of the upgrade may experience poor performance and loss of connectivity
- ▶ The time required to download and upgrade depends on the speed of your network connection. With a fast connection the total time to download, upgrade and restart the IP VCR is several minutes

Checking for updates and getting help

It is a good idea to regularly check for updates of the software image on the web site.

If the documentation does not answer your question or you have a problem with one of our products:

1. Refer to the Troubleshooter and Technical FAQ sections of the web site which is kept up to date with the latest information from our technical support team regarding the resolution of customer issues.
2. Contact your reseller. Our resellers have a wealth of experience with our products and this is often a quick way of solving a problem.
3. If your query remains unsolved, there is a web form in the Support area of the web site that you can complete. Ensure that you provide all the details requested by the form to assist the technical support team in resolving your problem:
 - a. The serial number and product model number (for example: IP VCR 2200) of the unit.
 - b. The software build number. (To find this, in the web interface, go to **Status > General**).
 - c. Where you purchased the unit.
 - d. Your contact email address or telephone number.

Resolved issues

The following issues have been found in previous releases and are resolved in this release.

Version 2.3 (1.1) to 2.3 (1.7) not published

Resolved in version 2.3 (1.8), 8 September 2008

Bug ID	Summary
5279	In the previous release, in some circumstances, the IP VCR crashed when sending H.239 to a Sony Endpoint. This issue is fixed in Release 2.3 (1.8)
5311	A new per-folder "persistentId" integer has been added to the folder.enumerate API response. This ID will always be the same as the value used in the streaming URL by the web interface. This value will persist over a reboot
5411	In the previous release, an incoming call from a Polycom MGC would not connect with H.264 enabled. This issue is fixed in Release 2.3 (1.8)
5130	In the previous release, there was a lip-sync issue when a T150 dialed in via the auto attendant. This issue is fixed in Release 2.3 (1.8)

Resolved in version 2.3 (1), 23 May 2008

Bug ID	Summary
1859	Ability to play back video recordings to audio-only device
4710	Problems when using a streaming link to recordings' content channel video after a restart
5018	Warning message seen when deleting a previously uploaded banner image
5083	Live recording is not listed in the streaming-only interface for guest users

Outstanding limitations and bugs

Windows Media Player and RealPlayer

- ▶ MPEGs downloaded from the Codian IP VCR can be reported to have incorrect lengths when played back in RealPlayer and Windows Media Player.

Streaming to QuickTime7 causes problems with some browsers

Streaming to an embedded QuickTime player using the QuickTime 7.0 plus later option for the Player format on the IP VCR can cause certain browsers to crash or remain in the 'negotiating' state indefinitely. Affected browsers include: IE6; Firefox 1.5 (Mac and PC); Safari 2.0.3 and earlier, and Camino. IE7 and Safari 2.0.4 do not appear to be affected by this. Using the QuickTime 6.5 plus later option for the Player format on the IP VCR will allow streaming to QuickTime using any browser that supports a QuickTime plugin.

Distortion or discoloration of part of the image when streaming live

Sometimes when streaming live; that is while a recording is being made, part of the image is distorted or discolored. There is a work around for this in release 2.1 onwards. Go to **Recordings**, click on the recording file. Then click to **Transcode to streaming media**. This re-transcodes the recording and deletes the current file.