Panasonic

HD Visual Communication Unit

KX-VC1000/KX-VC1300/KX-VC1600/KX-VC2000

(Software Ver5.50)

Release Note

Ver1.00

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Panasonic Corporation

Connected Solutions Company

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1. Introduction

1.1. Purpose

This release note describes the version 5.50 software for HD visual commuinication unit (Hereinafter referred to as HDVC) KX-VC1000/1300/1600/2000.
HD Visual Communication Mobile will be abbreviated as HDVC Mobile hereinafter.

1.2. Object Model

Object models of this release note are as follows.

Model	Note
KX-VC1000(SX,CH)	
KX-VC1300(A,SX,CH)	
KX-VC1600(A,SX,CH)	
KX-VC2000(SX,CH)	

※Ver5.50 does not support either KX-VC500, KX-VC300 or KX-VC600.

1.3. Scope of disclosure

Scope of disclosure scope is end user, the sales companies, system integrator, and dealers who are in charge of system up, setting and maintenance.

1.4. Contents

This release note mentioned as follows.
・Update information of Ver5.50
・Update information from previous versions

2. Update information of KX-VC1x00/VC2000

The following list describes the changes on KX-VC1000/1300/1600/2000 software from Ver 5.02 to Ver 5.50.

Yes: Supported, Conditionally: Available by Activation, No: Unsupported (unavailable), N/A

Item	Function	Function	Object Model			
			VC 2000	VC 1600	VC 1300	VC 1000
New function	Contact Lists transfer	• Contact lists can be shared by transferring to other HDVC.	Yes	Yes	Yes	Yes
Improvement of Functions	Number of camera preset registrations	• Expand the number of camera preset registrations from 9 to 12. (Target camera: Operation verified with KX-VD 170.)	Yes	Yes	Yes	Yes
	Improvement of Contact Lists editing function	• Improvement of Contact Lists editing function.	Yes	Yes	Yes	Yes
	Selection of 繁體 中文	• 繁體 中文 can be selected by GUI setting menu.	Yes	Yes	Yes	Yes
	Improvement of resolution display	• Improvement changing resolution display from transmitting resolution to input resolution in such case as PC contents sharing.	Yes	Yes	Yes	Yes
	Imprpvement adding participating sites from a remote site during on-going videoconference	• Improvement beeing able to add participants from a remote HDVC via its remote controller by using the preregistered profile in the hosting HDVC as access information during ongoing HDVC call.	Yes	Yes	Yes	Yes
	Lowest IP rate setting	• Add lowest IP rate setting in GUI.	Yes	Yes	Yes	Yes
	Change layout during standby condition	• Improvement beeng able to change display layout even while displaying PC contents at standby condition	Yes	Yes	Yes	Yes
	Improvement in H.323 dial sequence	• Improvement in H.323 dialing with supporting "IP address (or host name) ## H.323 extension number (or H.323 name)" dial sequence.	Yes	Yes	Yes	Yes
Others		• Improvement to ensure performance stability during transmitting PC contents in single stream.	Yes	Yes	Yes	Yes
		• Improvement to an issue that may cause the transmitting resolution to remain low even when disconnecting the low bandwidth site.	Yes	Yes	Yes	Yes

			• Improved the transmission resolution of substream, when connecting with SIP 512 kbps.	Yes	Yes	Yes	Yes
			• Improvement correcting a symptom that "SIP DelayedOffer" does not operate while "Mobile Connection" activation key is not installed.	Yes	Yes	Yes	Yes
			• Improvement in stability during dual stream contents sharing operation when mixed connection with H.263 terminals.	Yes	Yes	Yes	Yes
			• Improvement to the display position gap when setting the underscan rate.	Yes	Yes	Yes	Yes
			• Improvement in recorded video quality by USB recording.	Yes	Yes	Yes	Yes
			• Improvement correcting a symptom that occasionally calls fail after restoration from SIP registration refusal, while operating on SIP server.	Yes	Yes	Yes	Yes
			• Improvement correcting a symptom that occasionally "Automatic Power ON" does not function while network is in unusual condition such as NTP time correction set ON and IP address not yet acquired via DHCP.	Yes	Yes	Yes	Yes

Release information of Ver5.02

The following list shows Changes of KX-VC1000/1300/VC1600 (from Ver 5.01) and KX-VC2000 (from Ver 5.00) in Ver 5.02.

Yes: Supported, Conditionally: Available by Activation, No: Unsupported (unavailable), N/A

Item	Function	Function	Object Model			
			VC 2000	VC 1600	VC 1300	VC 1000
Others	Other improvement	• Improved the situation the resolution of PC or Sub Camera falls into w288 in the following conditions. - Change the "Max. Bandwidth Per Site(LAN1)" or "Max. Bandwidth Per Site(LAN2)" in the case of VC1600 or VC2000, "Max. Bandwidth Per Site(LAN1)" in the case of VC1000 or VC1300 setting from "Not Specified"(default), which can be set from "Menu"→"Settings"→"Call set up". - Multipoint conference - IP Mode(SIP), NAT Traversal Mode - Set the "Dual stream" to "ON"(default), which can by set from "Menu"→"Settings"→"Call set up" - Start dual stream communication	Yes	Yes	Yes	Yes

Release information of Ver 5.00(KX-VC2000) and Ver 5.01(KX-VC1000/1300/1600)

The following list shows Changes of KX-VC1000/1300/VC1600 in Ver 5.01 and KX-VC2000 in Ver 5.00 from Ver 4.52.

Yes: Supported, Conditionally: Available by Activation, No: Unsupported (unavailable), N/A

Item	Function	Function	Object Model			
			VC 2000	VC 1600	VC 1300	VC 1000
New function	USB memory recording	• Added　USB memory recording of audio and video during conference and stand-alone.	Yes	Yes	Yes	Yes
	USB device mode	• Added　USB device mode main-camera and microphone of HDVC operate as PC peripheral devices via USB.	Condition aly	Con ditio naly	Cond ition aly	Con ditio naly
	Power Settings	• Added　auto-power on and off on the configured time everyday or on the day of week.	Yes	Yes	Yes	Yes
Improvem ent of Functions	Improvemen ts of SIP connectivity	• Supported SIP BFCP dual-stream connection with endpoints of other vendors. • Improve connectivity with endpoints of other vendors.	Yes	Yes	Yes	Yes
	KX-VD170 support	• New camera KX-VD170 supports setting of sharpness, noise filter, continuous focus, and can be controlled from HDVC.	Yes	Yes	Yes	Yes
	authenticati on of incoming calls	• Added authentication of incoming call with a conference room number as a key.	Yes	Yes	Yes	Yes
	Backward compatibilit y when importing files	• Supported the import of address and profile files of previous version. • Supported the import of configuration file of previous version and only the same model.	Yes	Yes	Yes	Yes
	Display of the site with the lowest bandwidth	• Displayed the site with the lowest bandwidth which degrades the video quality of all sites of the same group. • It is displayed in the guidance of the site information and the list of sites when selecting.	Yes	Yes	Yes	Yes
	Transmissio n Bandwidth Control	• Added the selection of transmission bandwidth control ON or OFF.	Yes	Yes	Yes	Yes
	Improve the force responce	• Enables the force response without any popup when the menu is displayed during communication if it is enabled.	Yes	Yes	Yes	Yes
	Changes the default focus on manual dial	• Changed the default focus on manual dial from "Connection Mode" to "Outoging Site"	Yes	Yes	Yes	Yes
	Changes the default of Standby of the HDMI Settings	• Changed the default of Standby in the HDMI Settings from "ON" to "OFF", which is in the admin menu. Some camera shuts down when the HDVC is into the stand-by mode or is turned off.	Yes	Yes	Yes	Yes

	Changes the default value	• Changed the default value of the following
		-Call setup - Server Port
		  "Default"→"Alternate"
		-GUI Settings - "Y" Button during MCU
		  "Whisper Mode"→"Discussion/Presentation"
		-Camer Settings-Layout change camera
		  control
		"ON" → "OFF"
			Yes	Yes	Yes	Yes

	Improvement of GUI wording	• Improved the following language wording
		- Russian
		- Portguese : the popup when the NAT
		  Traversal server is unreachable.
		"Niet aangesloten op de NAT Traversal
		server" → "Não conectado ao NAT
		Traversal servidor"
		- Spanish : Security Settings→Incoming Call
		from a non-regist
		  "Entrante un llamante no registrado" →
		  "Entrante llamante no registrado"
			Yes	Yes	Yes	Yes

Others	Other improvement	• Improved the situation the outgoing or incoming call with endpoints in WAN fails occasionaly via some kind of HUB in IP/MAT Traversal mode and static NAT.	Yes	Yes	Yes	Yes
		• Improved the QoS negotiation with H.323 via gate keeper.	Yes	Yes	Yes	Yes
		• Improved the HDMI3 output which displays a black screen occasionally when repeating to connect and disconnect the main-camera.	Yes	Yes	Yes	Yes
		• Improved the flickering in screen when video source is changed from PC to main-camera during stand-alone.	Yes	Yes	Yes	Yes
		• Improved the behavior when repeating outgoing calls to many endpoints and incoming calls from many ones.	Yes	Yes	Yes	Yes
		• Improved system information where the packet loss and frame rate become "-"occasionally.	Yes	Yes	Yes	Yes
		• Improved the behavior where changing from dual stream to single stream.	Yes	Yes	Yes	Yes
		• Improved external I/F behavior where the HDVC falls into the fault occasionally when repeating download of log files.	Yes	N/A	N/A	N/A
	Enhanced connectivity with other companies	• Improved the SIP connectivity with AVAYA XT5000 (V8_3_0_80) where black screen on the HDVC display and disconnection occurred.	Yes	Yes	Yes	Yes
		• Improved the connectivity with endpoints of other vendors where the video resolution of main stream is not recoveried occasionally after single→dual→single.	Yes	Yes	Yes	Yes
		• Improved the SIP connectivity with Cisco_880MXP (F9.3.1) and Edge95MXP (9.3.4) where no audio is output on the HDVC.	Yes	Yes	Yes	Yes

		• Improved the SIP connectivity with Cisco_880MXP (F9.3.1) where the call from Cisco to HDVC failes when "Video" is set in "Quality of Service" in "Call Setup".	Yes	Yes	Yes	Yes
		• Improved the connectivity with Cisco_880MXP (5.2) where the image from it is distorted.	Yes	Yes	Yes	Yes
		• Improved the SIP connectivity with endpoints of other vendors to select H.264 High Profile preferentially if the endpoint of other vendor has the ability to decode it.	Yes	Yes	Yes	Yes
		• Improved the connectivity with Cisco_SX20 (8.1.0) where the situation where black screen on the HDVC display occurres occasionally.	Yes	Yes	Yes	Yes
		• Improved the connectivity with Polycom_RSS2000 and RSS4000 where no audio is output on the HDVC.	Yes	Yes	Yes	Yes
		• Improved the H.323 negotiation with endpoints which support only H.264 Baseline Single NAL and those which support only H.263+ when operating as MCU.	Yes	Yes	Yes	Yes

Release information of Ver4.52

The following list shows Changes of KX-VC1000/1300/1600 from Ver 4.35 and those of KX-VC2000 from Ver 4.51.

Yes: Supported, Conditionally: Available by Activation, No: Unsupported (unavailable), N/A

Item	Function	Function	Object Model			
			VC 2000	VC 1600	VC 1300	VC 1000
New function	Profile standby	• Add a function that standby with profile specified.	Yes ※2	Yes	Yes	Yes
	White list	• Add a function that incoming permission with whitelist.	Yes ※2	Yes	Yes	Yes
Improvement of Functions	Permeation of Site name	• Support for permeation of site name during MCU to GUI.	Yes ※2	Yes	Yes	Yes
	Password for remote access	• Enhanced password for remote access. - 8 characters or more - Use 2 or more types of characters 0 - 9 A - Z * Uppercase or lowercase Symbols	Yes ※2	Yes	Yes	Yes
	Sites number per profile	• Support for 30 sites per profile.	Yes ※2	Yes	Yes	Yes
	layout pattern	• Add layout pattern during MCU. (CP13 – 28)	Yes ※2	Yes	Yes	Yes
	Remote access setting	• Add Remote access setting to GUI.	Yes ※2	Yes	Yes	Yes
	Call history during call	• Add number of call history during call.	Yes ※2	Yes	Yes	Yes
	Secondary bandwidth selection	• Add choices of secondary bandwidth selection.(1.5 Mbps/1.2 Mbps/384 kbps)	Yes ※2	Yes	Yes	Yes
	Number of call history	• Add number of call history to 100.	Yes ※2	Yes	Yes	Yes
	How to Save Call History	• Save all history on incoming and outgoing calls.	Yes ※2	Yes	Yes	Yes
	Redial history	• Support for check the redial history in the call history.	Yes ※2	Yes	Yes	Yes
	Delete call history	• Add setting for disable delete history function.	Yes ※2	Yes	Yes	Yes
	Delayed Offer	• Support for Delayed Offer of SIP.	Yes ※2	Yes	Yes	Yes
	Video quality setting	• Add setting for Video quality (PC) and Video quality (Sub Camera).	Yes ※2	Yes	Yes	Yes
	Admin login	• Support for hide the yellow button (Admin login) displayed on the menu screen.	Yes ※2	Yes	Yes	Yes

	Add Setting to GUI	• Add settings to GUI. ➢ Characteristics of microphone collected sound ➢ Microphone to mute ➢ Setting not to display the MCU site on the multi view.	Yes ※2	Yes	Yes	Yes
	System Information screen during a calling	• Improvement of behavior that System Information screen.	Yes ※2	Yes	Yes	Yes
	Company name	• Change company name from Panasonic System Networks Co., Ltd. to Panasonic Corporation on the EULA screen.	Yes	Yes	Yes	Yes
	Network failure detection	• When a network failure is detected (ex: network loop), a popup will be displayed.	Yes ※2	Yes	Yes	Yes
Others	Other improvement	• Improvement of behavior that communication using NTT DoCoMo's SIM.	Yes	Yes	Yes	Yes
		• Improvement of behavior that the output of HDMI 3 is set to the output of HDMI 1 or HDMI 2 on the Video Output screen, Determine the video output format from the format information of the output source.	Yes	Yes	Yes	Yes
		• Improvement in order to synchronize video and audio when many connection destinations disconnected at the same time at the MCU site.	Yes	Yes ※1	Yes ※1	Yes ※1
		• Improvement of behavior that Self diag. cannot be finished.	Yes	N/A	N/A	N/A
		• Improvement of behavior that Connection destination information is rarely displayed in the device information of the Web console.	Yes	Yes ※1	Yes ※1	Yes ※1
		• Improvement of behavior that it can receive incoming calls from KX-VC300/KX-VC600 if you set the following. ➢ Quality of Service of Call setup screen to Video. ➢ G.722.1 and AAC-LD of Codec settings screen to OFF.	Yes	Yes	Yes	Yes
		• Improvement of behavior that the standby setting of the profile released by importing the profile becomes standby setting by re-entering the profile of the standby target.	Yes	N/A	N/A	N/A

		• When the forced transmission permission setting is valid and the WAN side IP address can be obtained, calling is enabled regardless of the result of NAT investigation.	Yes	Yes	Yes	Yes
		• Improvement of behavior that the frame rate on System Info. Screen correctly to the first decimal place when connecting with other company's endpoint.	Yes	Yes	Yes	Yes
		• Improvement of behavior that the startup fails extremely really when Multicast is active and starts up in the Web port open state.	Yes	Yes	Yes	Yes
		• Changed GUI language representation. (Renamed from "FIX Cam's Remote Ctrl Rcvr" to "Remote control through function" on CameraSettings screen.)	Yes ※2	Yes	Yes	Yes

Yes※1: Corresponded with Ver.4.35

Yes※2: Corresponded with Ver.4.51

Release information of Ver4.35

Yes: Supported, Conditionally: Available by Activation, No: Unsupported (unavailable)

Item	Function	Function	Object Model		
			VC1600	VC1300	VC1000
Improvement of Functions	Improvements	• Improvement of behavior that other endpoints that have received the content remain the contents screen, if a main unit receives an incoming call from a dual stream invalid endpoint and the incoming confirmation pop-up is displayed while a plurality of endpoints are connected and one endpoint shares a content by dual stream.	Yes	Yes	Yes
		• Improved communication stability in a network where multiple MAC addresses are assigned to one IP address. (e.g. GLBP (Gateway Load Balancing Protocol)).	Yes	Yes	Yes

Release information of Ver4.33

Yes: Supported, Conditionally: Available by Activation, No: Unsupported (unavailable)

Item	Function	Function	Object Model		
			VC1600	VC1300	VC1000
Improvement of Functions	Improvements	• Support for automatically transition to PC single screen when PC screen sharing is executed at HDVC mobile for Windows by the single stream.	Yes	Yes	Yes
		• Improvement of behavior that the setting is reflected on the operation if the setting of "Echo Canceller" of "Audio I/O" menu is set to "OFF".	Yes	Yes	Yes
		• Improvement of behavior that the LAYOUT button does not become effective if the setting of "Video output" is set to "HDMI1" and the setting of "Layout 1"　is set to below.　"Content / Camera (PwithP)"　"Content / Camera (SideBySide)"	Yes	Yes	Yes
		• Improvement of behavior that the video is not output when HDVC returns from screen stand-by if HDVC is connected to the old model of monitor that supports only 1080i.	Yes	Yes	Yes
		• Improvement of behavior that the video of HMDI3 becomes abnormal if HDMI1 or HMDI2 of HDVC is connected to the old model of monitor that supports only 1080i and "Output of HMDI3" is set to the corresponding HDMI terminal.	Yes	N/A	N/A
		• Improvement of following behavior that rarely occurs. The bandwidth is reduced and the disturbance of the video continues in the case of dual stream transmission.	Yes	Yes	Yes
		• Improved to be able to reduce the time until the bandwidth returns back after the packet loss due to network occurs.	Yes	Yes	Yes
	Enhanced connectivity with other companies	• Improved to be able to communicate with the following endpoints using SIP.　Polycom : Group300/500(4.3.0, 5.1.2)　HDX7000/8000(3.1.6, 3.1.10)　CISCO : C20/60(7.3.2, 7.3.5)　CISCO : SX20(8.1.0)　SONY : XG77s/100s(1.42, 1.51),　　　XG80/XA80/XG55(2.45),　　　XC1(1.12, 1.22)　Lifesize : Express220(5.0.3),　　　Passport(4.12.0)　Avaya : VC240(1004.16)	Yes	Yes	Yes
		• Improved to be able to receive XGA using H.263 in the case of more than 5 endpoints conference.	Yes	N/A	N/A

		• Improved to be able to communicate with Polycom ViewStation Release 5.6 using H.323.	Yes	Yes	Yes
		• Improvement of behavior that HDVC cannot communicate normally depending on the order to connect to endpoints when it connects to HDVCs and more than one of other vendor's endpoints such as SONY XG80 that supports only H.264 Baseline Single NAL for the video codec.	Yes	Yes	Yes

Release information of Ver4.30

Yes: Supported, Conditionally: Available by Activation, No: Unsupported (unavailable)

Item	Function	Function	Object Model	
			VC1600	VC1300
Improvement of Functions	Improvement of GUI wordings	• Improvement of GUI wordings of pop-up display and call histories, etc.	Yes	Yes
		• Improvement of behavior that the position of the excluded site becomes a black screen after MCU mode is changed from "Discussion" to "Presentation" when the setting of "Main Position (Discussion)" is set to except for "Specified Position" and the setting of "Main Position (Presentation)" is set to "Specified Position" and the setting of "Display position setting" is set to "Black scene" and a site is excluded at the time of outgoing with "Discussion" mode. • Improvement of behavior that the settings of MIC3 and MIC4 of "MIC Setting" become invalid after restart in case of Manual setting. • Improvement of behavior that the communication might not be a communication using the profile if an outgoing call using the profile and an incoming call happen at the same time. • Improvement of behavior that the dual steam function does not become effective automatically after HDVC mobile (for iOS / for Android) takes part in the conference in which the encryption is enabled and the dual stream is disabled and afterward the endpoint that does not support the dual stream disconnects from the conference. • Improvement of behavior that HDVC mobile for Windows is disconnected after HDVC mobile takes part in the conference in which the encryption is enabled and the dual stream is disabled and afterward the endpoint that does not support the dual stream disconnects from the conference. • Improvement of behavior that the failure rarely occurs in HDVC that sending content when an endpoint that does not have dual stream function participates in the conference during content sharing by dual stream. • Improvement of behavior that the howling might occur at start-up in the case that the speaker is connected to the Audio Out L/R jack and the video camera that has mic input is connected the Main camera terminal.	Yes	Yes

		- Improvement of behavior that HDVC might restart when HDVC receives more than 11 incoming calls using SIP protocol at the same time. - Improvement of behavior that HDVC restarts when "Version Confirmation" is executed in the case that "Update Method" in "Software update" menu is set to "USB" and USB adapter without SD card is inserted. - Improvement of behavior that "Multicast Tree Set." menu cannot be set when "Edit Profile" of "GUI Settings" is set to "OFF". - Improvement of behavior that configuration data in which the setting of "Video Output" in "Video Output" menu is set to "HDMI 1" and the setting of "Audio output terminal" in "Audio I/O" menu is set to "OFF" cannot be imported. - Improvement behavior that the encryption setting cannot be saved in which "Access mode" is set to "User" and "Encryption Key" is blanked after the settings of "Encryption (SIP)" and "Encryption (NAT Traversal)" are set to "ON" in IP/NAT Traversal Mode and afterward the "Connection mode" is changed to IP Mode or NAT Traversal Mode. - Improvement behavior that the audio from HDVC mobile for Windows Ver3.14 is not outputted when the setting of "Quality of Service" in "Call set up" menu is changed to "Video" and HDVC receives an incoming call from HDVC mobile. - Improvement of behavior that there is a case in which a part of a screen display becomes green for a moment at start-up.		
	Enhanced connectivity with other companies	- Improved to be able to communicate with Sony PCS-1 using H.264 codec. - Improved to be able to execute the content sharing with SONY PCS-1 by the dual stream. In this case the codec of sub-stream is H.263. - Improved to be able to communicate with Sony PCS-G50 using H.264 codec. - Improvement of behavior that SONY PCS-G50 cannot receive the sub-camera when MCU site (HDVC) executes content sharing by the dual stream in the case that SONY PCS-G50 and HDVC are connected to MCU. - Improved to be able to communicate with Sony PCS-TL33 using H.264 codec.	Yes	Yes

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| | | Improvement of behavior that the resolution of the main camera might remain lower after content sharing start/stop at MCU site (HDVC) by the dual stream in the case that CISCO SX20, Polycom VSX and HDVC are connected to MCU. Improvement of behavior that there is a case that the communication does not become normal rarely after the connection with CISCO MCU by SIP protocol with the dual stream available setting. | | |

Release information of Ver4.25

Yes: Supported, Conditionally: Available by Activation, No: Unsupported (unavailable)

Item	Function	Remarks	Object Model	
			VC1600	VC1300
New Functions	Presentation mode	• Add Presentation mode in MCU mode which is suitable for lecture-style conferences. By selecting Presentation mode, the main site can see a composite image including subsites, and the sub sites can see the image of main site only. • You can easily change the MCU mode during a conference call, by using MCU setting menu or just pressing the yellow button of remote control. • Add Presentation mode icon whose display mode is selectable by the setting.	Yes	Yes
Improvement of Functions	Audio Mix Selection mode	• Add Mix (selection) mode to "Other Site's Audio" setting menu. In Mix (selection) mode, you can select up to four sites freely as audio mix sites during a conference call. And its Mix mode and sites selection can be saved in a profile.	Yes	Yes
	Main position selection in Voice Activation2	• Added choices of sites to main display in "Voice Activation 2". In the Voice Activation 2 of Main Position setting, you can select any site for main display position. • You can change this site selection during a conference call.	Yes	Yes
	Specified position mode for MCU composite image.	• Add specified position mode for MCU composite image. In this mode, you can see each sub site's image in the specified position of MCU composite image.	Yes	Yes
	GUI language	• Add Arabic to GUI • Note: There may not be the right-justified representation in some setting pages.	Yes	Yes
	Improvement of voice activation1 and voice activation 2	• Adjust screen switch sensitivity during voice activation mode.	Yes	Yes
	NAT setting for Symmetric NAT in GUI	• Add GUI menu of "Conversion IP and Port Num" function for mobile connection via symmetric NAT router.	Yes	Yes
Others	Other improvement	• Improve resolution of sending video in the situation of network bandwidth fluctuation such as mobile network. • Improve the event of failure that rarely occurs in communication with mobile terminal via NAT router. • Support "output local site sound" during Multicast. • Support "Forced Answer" mode during Multicast. • Improve behavior in situations that multiple processes, such as content share	Yes	Yes

		and incoming call and so on, occur at the same time. • Improve behavior of content sharing start process with HDMI audio input setting to "Sub Camera + PC" • Improve video input changing behavior in situations that staring dual stream just after single stream terminal leaves the meeting. • Improve layout changing behavior in situations that several sub sites start single stream at the same time. • Improve video format recognition accuracy of HDMI main camera and PC-VGA input. • Improve video signal detection accuracy of HDMI main camera input via HDMI splitter. • Improve event that HDMI 2 and HDMI 3 rarely cannot display video in the case of IP address is not acquired. • Improve event that HE30 camera with serial camera control connection rarely display blueback image after restarting HE50 camera. • Improve the event of failure that rarely occurs in transitions to service stop state. • Improve behavior of status LED in situations that happens auto answer to incoming call during standby mode. • Support external I/F of uploading encryption data. • Improve behavior of site selection in profile that enables deselect the site whose connection mode is invalid. • Improve the call history of IPv6 connection. • Improve behavior in the situations that receiving incoming call while editing profile. • Improve the event of failure that rarely occurs when receiving more than the number of licenses incoming calls. • Improve GUI language representation. • Improve the behavior of displaying encryption icon for SIP when SIP is disabled during "IP/NAT Traversal mode" • Improve the behavior of changing Main Position setting during communication. • Strengthen input error check for IPv6 address. • Support ICMP redirect.		
	Enhanced connectivity with other companies	• Improve behavior as a sub site during connection with SONY XG series and H.263+ terminal and receiving dual stream from main site. • Improve behavior of PC sharing in case that Polycom ViewStation joins during dual	Yes	Yes

		streaming from sub site. • Improve behavior in case that some parties leave from the conference during SIP connection with Cisco C60(TC7.1.4) • Improve the event of black image at LifeSize Express in the situations that main site starts PC sharing during the conference whose connection order is HUAWEI_TE30, Cisco_SX20 and Lifesize_Express. • Improve the event of disconnection just after connection that rarely occurs in the situations that MCU of Polycom HDX serie start multi-site conference. • Support dual streaming in the conference joined via IVR of MCU-AVAYA Elite series. • Improve the event of disconnection just after content sharing in the situations that MCU-AVAYA Elite becomes to be high-load state with over 100 terminals conference. • Improve connectivity with Polycom MGC100 for the case that maximum bandwidth setting exceeds MCU meeting's one. • Improve the event of PC's black image at SONY G series that rarely occurs in the multipoint conference with SONY G series. • Improve the event of disconnection just after connection in the case that Polycom VSX series joins at over 768kbps during dual streaming at multipoint conference. • Improve behavior of XGA PC sharing with SONY G series by changing capability exchange process. • Improve the event of displaying inappropriate aspect ratio image in the connection with Polycom VSX series under 768kbps bandwidth. • Improve the event of black image in the situations that Polycom terminal starts content sharing during connection with Polycom RMX series whose video codec setting for H.239 is H.263. • Improve the event of black image at Cisco 880MXP in the situations that HDVC starts PC content sharing during conference with Polycom HDX series, LifeSize Express and Cisco 880MXP. • Support dual streaming in the conference of Cisco Codian MCU in which its encryption settings are on and off mixed.		

Release information of Ver4.20

Yes: Supported, Conditionally: Available by Activation, No: Unsupported (unavailable)

Item	Function	Remarks	Object Model	
			VC1600	VC1300
New Functions	Multicast	• Support for Multicast which is a one-way communication service that allows one HDVC to multicast video and audio to other HDVCs of up to 30units. • The setting of Multicast tree, the start and stop of Multicast is enabled by GUI operation.	Conditionally	Conditionally
	IPv6 address support	• IPv6 address is available for communication. • IPv4 address and IPv6 address is used at same time. (IPv4 and IPv6 dual stack support)	Yes	Yes
	Mobile connection	• By activate "Mobile Connection" enhancement to HDVC, the mobile devices can connect to the HDVC in IP mode without mobile activation.	Conditionally	Conditionally
Improvement of Functions	Add setting items to GUI	• Add setting for audio input from HDMI equipment. • Add setting whether changes or not layout to Camera Settings menu. • Add menu screen that can be registered to shortcut function.	Yes	Yes
	Contact List	• Add "All" tab to contact list to show all contacts in a list.	Yes	Yes
	Content sending method	• Add function that can change content sending method in communication by selecting the dual stream or the single stream.	Yes	Yes
	Encryption setting	• The encryption setting of SIP is separated IP mode (SIP) and NAT Traversal mode and can be set individually.	Yes	Yes
	Max. Bandwidth for each LAN interface	• Add setting to set maximum bandwidth per a site for each LAN interface.	Yes	Yes
	PC resolution	• Add supported PC resolution. FWXGA1 (1360x768) FWXGA2 (1366x768) WXGA+ (1440x900) WXGA++ (1600x900)	Yes	Yes
	CPn layout	• Add CP9 setting to CPn layout.	Yes	Yes
	MIC mute at making a call	• Add setting to mute the MIC at making a call	Yes	Yes
	Store and restore of Encryption data	• Add function to store and restore the Encryption configuration data.	Yes	Yes

	Factory default change	• [Call set up]-[More than one incoming call]
		    OFF -> ON
		• [MCU Settings]-[The Main Position]
		  [Profile Settings]-[The Main Position]
		    Voice activation 1 -> Local Site
		• [Encryption]-[Encryption(H.323)]
		  [Call set up]-[Encryption(H.323)]
		    Best effort -> OFF
		If the software is updated, the settings are maintained from the previous version.
			Yes	Yes

	Forced answer function	• Add function that responds automatically an incoming call without displaying the incoming confirmation pop-up in other than the home screen.	Yes	Yes
	Manual Dial screen improvement	• Add function that displays the name of the contact list instead of IP address when a destination is selected from the contact list.	Yes	Yes
	Web console	• Add function to Web console as below. Edition of contact list Edition of Profile Setting of Multicast tree and start/stop of Multicast	Yes	Yes
	Improvement of acquisition timing of WAN IP address	• WAN IP address acquisition timing is improved from start-up only to periodical check (default: 240sec) when Static NAT setting and automatic acquisition are enabled in IP Mode.	Yes	Yes
	Improvement of connectivity with HDVC Mobile	• Improvement of connectivity with HDVC Mobile under Symmetric type NAT router.	Yes	Yes
	GUI language (CH model only)	• Add language to GUI Deutsch, Français, Italiano, Nederlands	Yes	Yes
	Other improvements	• Add function that turns off the MIC LED when becoming screen standby. • Add function that displays the registered name of other site in the contact list in unit information screen during communication • Add setting that resets the call duration when the call duration time exceeds 99 hours 59 minutes. • In case of AAC-LD audio codec the sound interruption is prevented when the number of site changes from 2 to 3 or from 3 to 2. • Add the setting to select the camera aspect ratio from full screen mode or center-cut mode when sending video using H.261/H.263. • RCA input revel is maintained after version up. • Improvement of 60fps rendering performance. • Improvement of behavior in the case of incoming call when the main stream is switched during dual stream transmission.	Yes	Yes

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- Improvement of behavior that PinP video becomes the other site' content if HDVC is switched to dual stream reception during dual stream transmission and PinP execution.
- Improvement of behavior that dual stream function might not be enabled after an endpoint that doesn't have the dual stream function leaves from the conference at NAT Traversal environment.
- Improvement of behavior that "Sending Content" remains displayed when dual stream is started by H.239 and it is rejected by the other endpoint.
- Improvement of behavior that the other site's name is not displayed after content sharing by H.239 at the time of 2-party conference.
- Improvement of content sharing behavior by single stream when the setting of "The Main Position" is "Voice activation 2" and the setting of "Other Sites's Audio" is "Mute".
- Improvement of behavior that the displayed video becomes strange when the operation of content sharing stop at the Main site and disconnection of the sub site occurred at the same time.
- Improvement of behavior that the camera image might be displayed momentarily when the PC cable (HDMI cable or VGA cable) is removed during content switching in non-communication.
- Improvement of behavior that the incoming confirmation pop-up is displayed when an incoming call is received during session change even if the "Answer Mode" is set to "Auto".
- Improvement of behavior that the conference is rarely disconnected at the very bad network environment by improvement of follow-up to the network quality. (for example more than continuous 3 % packet loss)
- Improvement of behavior that the transmission rate remains low at large packet loss environment due to congestion.
- Improvement of behavior that the output video of HDMI3 might be distorted when "Output of HMDI3" is set to "Local site video" and the main camera is not connected.
- Improvement of behavior that the ringing tone might not ring when "Answer Mode" is set to "Auto".
- Improvement of behavior that the received image remains distorted and is not

recovered and that occurs very rarely.
- Improvement of behavior that MIC red LED is flashing dimly at a high speed in non-communication.
- Improvement of behavior that welcome-screen sound might not sound at start-up and a call might not be made.
- Improvement of behavior that MIC is muted when "Default MIC Mute set" is set to "ON" and 3-party conference becomes 2-part conference.
- Improvement of behavior that DSN query does not work correctly when srv record search is enabled.
- Improvement of behavior that the input character in number mode is different from the description of the user manual.
- Improvement of behavior that GUI does not work correctly when more than 20 incorrect routing configurations are set.
- Improvement of behavior that the input of sub camera might not displayed according to PC output when the input is changed from PC(VGA) to 1080p sub camera during content sharing.
- Improvemented operation when DHCP lease is expired during vides conference in NAT Traversal Service.
- Improvement of GUI behavior that the content of call history ([B] button during video conference) is not correct when multi-party conference is made to incorrect endpoints such as incompatible encryption setting and correct endpoints.
- Improvement of behavior that GUI language becomes Japanese when a new local site setting is generated by "Add New" at "select local site" menu.
- Improvement of behavior that noise is superimposed on the voice when HDVC is connected to OKI Visual Nexus using G.711 A-low codec.
- Improvement of behavior that the system error occurs on connecting to the H263_4CIF conference room of the old version of OKI Visual Nexus. Since its conference room is not supported by HDVC, it is to be successfully disconnected.
- Improvement of behavior that dual stream cannot be made after connection with SIP in the conference room of the old version of CISCO Codian.
- Improvement of behavior that HDVC recognizes that the H.263 stream from Mediapoint IP2 is abnormal and disconnects it.
- Improvement of behavior that the

| | | conference is disconnected when HDVC receives invalid H.263 stream without a marker bit.
• Improvement of behavior that the camera control cannot be done by SONY XG series when HDVC connects to it in H.323 encryption.
• Improvement of behavior that the screen flickers only immediately after the start of content sharing by the main site at multi-party conference that SONY XG series participates in.
• Improvement of behavior that the screen flickers at the start of content sharing by HDX series during the multi-party conference that Polycom HDX series, SONY XG series and Lifesize Express are participate in.
• Improvement of behavior that the content is not displayed at SONY XG series when during content sharing it participates in multi-party conference that Polycom HDX series participate in.
• Improvement of behavior that the content might not be displayed at CISCO C series and HDVC when during content sharing CISCO C series participates in multi-party conference that SONY XG series participates in.
• Improvement of behavior that content sharing by HDX series cannot be made during more than 9-party conference that Polycom HDX series, Polycom VSX series and H263_QCIF non-compliant endpoints such as HUAWEI TE30 or Aver EVC900 participate in. | | |

Release information of Ver4.15

Yes: Supported, No: Unsupported (unavailable)

Item	Function	Remarks	Object Model	
			VC1600	VC1300
Improvement of Functions	GUI language	German, French, Italian and Dutch are supported as GUI language. (only Global model) Ver4.20 will support for JP model and CH model.	Yes	Yes
	Routing Settings expansion for LAN2	The number of the routing settings of LAN2 is extended from 10 to 50.	Yes	No
	Receiving sensitivity improvement of the remote control	The receiving sensitivity is improved by changing receiving treatment of the remote control.	Yes	Yes
	HDMI Equipment connectivity improvement	The connect ability of the HDMI equipment is improved by changing the detection process, when a HDMI device generates non-standard signal.	Yes	Yes
	Screen at the start/stop of content sharing	The phenomenon that screen might flicker at the start or the end of displaying computer's screen and the sub video camera's images fixed.	Yes	Yes
	Connectibility improvement with VC300/600	Connectivity is enhanced in case connecting with KX-VC300/VC600 which are installed under NAT router and they are set up Static NAT.	Yes	Yes
	System Initialization	The internal process for initializing the system is changed.	Yes	Yes

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