

# ***HD VISUAL COMMUNICATION SERVER***

---

## **Operating Instructions (Version 6.0)**

Before operating the unit, please read this manual thoroughly and retain it for future reference.

**IPELA**

***PCS-VCS***

## Notation used in this Manual

Menu, Icon, Button and Tab Operations	Denote by enclosing with [ ] E.g. Click [Cancel] button.
Directory and Menu Selection	[Main Menu Name] → [Sub Menu Name] E.g. Select [Program] → [Internet Explorer]
Reference	Denote reference source by enclosing with “ ” E.g. Refer to “About this Document”

## Screen Captures

Screen captures are shown throughout this manual as typical examples of the program operation. As such, the screens shown in this manual may differ from the actual screens displayed on your terminal.

## Trademarks

- HD VISUAL COMMUNICATION SERVER is a product of the Sony Corporation.
- “IPELA” and **IPELA** are trademarks of Sony Corporation.
- HD VISUAL COMMUNICATION SERVER uses the Visual Nexus developed by Oki Electric Industry Co., Ltd.
- Visual Nexus and the Visual Nexus logo are the registered trademarks of Oki Electric Industry Co., Ltd.
- Microsoft, NetMeeting, Windows and PowerPoint are trademarks or registered trademarks of Microsoft Corporation in the United States and other countries.
- Intel, Pentium, Xeon and Celeron are trademarks or registered trademarks of Intel Corporation in the United States and other countries.
- SONY is a trademark of Sony Corporation.
- Red Hat is a trademark or registered trademark of Red Hat, Inc. in the United States and other countries.
- Linux is a trademark of Linus Torvalds.
- Other company names or product names noted in this manual are the trademarks or registered trademarks of their respective owners.

---

# Table of Contents

---

## **Chapter 1: HD VISUAL COMMUNICATION SERVER Overview**

System Overview .....	6
Meetings .....	7
H.323 Alias and Gatekeeper .....	8

---

## **Chapter 2: HD VISUAL COMMUNICATION SERVER Setup**

VC ONLINE Login .....	9
License .....	10
Confirm License .....	10
Starting and Stopping the HD VISUAL COMMUNICATION SERVER .....	11
HD VISUAL COMMUNICATION SERVER Manual Startup .....	11
HD VISUAL COMMUNICATION SERVER Manual Close .....	11
HD VISUAL COMMUNICATION SERVER Processes .....	12

---

## **Chapter 3: Basic Configuration**

Creating a User .....	13
Create User Information .....	13
Edit User Information .....	17
Delete User Information .....	17
Create a User Template .....	18
Search Filter in User List .....	19
Configuring User Groups .....	20
Configure a New Group .....	20
Edit Group Information .....	21
Delete Group Information .....	22
Search Filter in Group List .....	22
Configuring a Meeting .....	23
Configure Meeting Information .....	23
Edit Meeting Information .....	29
Search Filter in Meeting List .....	29

---

## **Chapter 4: Using Meetings (Basic)**

Monitor Function .....	30
------------------------	----

Monitor Endpoint Information .....	30
Monitor Meeting Information .....	32
Monitor Call Information .....	35
Calling to a Meeting .....	36
Calling an Endpoint to a Meeting via the [Monitor (Endpoint)] Screen .....	36
Calling an Endpoint to a Meeting via the [Monitor (Meeting)] Screen .....	37
Disconnecting an Endpoint from a Meeting .....	39
Disconnect an Endpoint from a Meeting List .....	39

---

## ***Chapter 5: Using Meetings (Application)***

Scheduling Meetings .....	40
Suppressing Video Refresh Requests from Endpoints .....	42
Using the Share Phone Book .....	43
Using Templates .....	44
Configuring Audio Details .....	45
Changing Transmission Resolutions for Endpoints with Insufficient Throughput .....	46
Using the Encryption Function .....	47
Configuring Video Details .....	48
Restricting Meeting Users .....	50
Conducting Moderated Meetings .....	51
Moderate a Meeting .....	51
Conducting Multiple Video Screen Meetings .....	53
Multiple Video Screen Layout .....	54
Upstream Resolution from Endpoints .....	57

---

## ***Chapter 6: Using the Reservation System***

About the Reservation System .....	58
Configuring the Reservation System .....	59
Creating a Reservation Template .....	60
Reserving a Meeting .....	61
Verify Personal Reservation Schedules .....	64
Edit Reservation Settings .....	64
Delete Reservations .....	65
Deleting a Completed Meeting .....	66

---

## ***Chapter 7: Server Monitoring***

Confirming HD VISUAL COMMUNICATION SERVER Status .....	67
--	----

---

## **Chapter 8: Gatekeeper**

Restricting Registrations .....	69
Restrict Registrations .....	69
Edit Registration Restrictions .....	71
Delete Restriction Information .....	71

---

## **Chapter 9: VCMP Servers**

About VCMP Servers .....	72
Registering VCMP Servers .....	73
Register VCMP Server Information .....	73
Edit VCMP Server Information .....	74

---

## **Chapter 10: Additional Configuration**

ARQ (Automatic Repeat ReQuest) Function .....	75
Configuring Personal Information .....	76
Sending an E-mail to other Users .....	78
Reporting .....	79
Sony PCS-XG/XL/XA/XC Series Firmware Update Function .....	81
Setup .....	81
Firmware Update Procedure .....	81
Status Display .....	82
Linking to the HD RECORDING SERVER .....	83
Configure the HD RECORDING SERVER Link .....	83

---

## **Appendix**

List of Terms .....	85
Menu Components .....	89

# Chapter 1: HD VISUAL COMMUNICATION SERVER Overview

---

## System Overview

### HD VISUAL COMMUNICATION SERVER

The HD VISUAL COMMUNICATION SERVER is a multipoint connection unit (MCU) that is in complete compliance with the H.323 protocol. It is compatible with multipoint voice synthesis, voice-activated video switching, etc., and provides central management of functions used for creating, scheduling and editing meetings. An H.323 gatekeeper is also embedded in the server.

#### Note

This software is intended to be used on a server installed on a secure network, such as a corporate LAN. In operating environments where access from the Internet is possible or where unspecified access is frequent, take appropriate security measures by using network devices, for example.

# Meetings

The virtual spaces or locations for conducting communications via the HD VISUAL COMMUNICATION SERVER are referred to as “Meetings”. This is the equivalent of a conference room in traditional video conferencing systems.

Meeting types can either be “Normal” or “Presentation”. Users can select which type of meeting they wish, according to their requirements.

Type	Explanation
Normal	The standard HD VISUAL COMMUNICATION SERVER meeting type. No User serves as the meeting administrator. All meeting participants have the same privileges.
Presentation	The general term for meetings with controlled audio communications. Access VC ONLINE via a web browser, and permit speaking by using the [Control Panel]. There are two types of participants in this meeting type, each having different privileges. The meeting [Chairman] operates the meeting on behalf of the “General Users.” The meeting Chairman can change the meeting mode by granting General Users permission to speak. <b>Open Forum:</b> Participants can hear the Chairman and those the Chairman has granted permission to speak. <b>Side Meeting:</b> Only the Chairman and those the Chairman has granted permission to speak can hear each other. Conversations cannot be heard by participants who have not been granted permission to speak. <b>Presenting:</b> Only the Chairman can be heard by all participants. <b>Lecture:</b> Under default conditions, only the Chairman can be heard by all participants. In such cases, the video of the Chairman and those specified by the Chairman appear on the General Users’ screens, while video of each General User appears on the Chairman’s screen in a multiple video screen layout. If the Chairman grants a General User permission to speak, the Chairman and this General User will be heard by all participants. In such cases, the screens of each of the General Users will switch to a multiple video screen layout displaying the Chairman and the user the Chairman has granted permission to speak. <b>Note</b> You can not change modes while a meeting conducted in [Lecture] mode is in progress.

Online communication provided by HD VISUAL COMMUNICATION SERVER enables meetings to be held among several individuals or person-to-person (one-on-one).

Meetings involving several members must first be registered by the system administrator.

Person-to-person meetings can be undertaken using direct communications via an H.323 Alias or E.164 Number.

---

# H.323 Alias and Gatekeeper

An H.323 Alias is a unique name assigned for each H.323 terminal, User or Meeting. The User name of a H.323 terminal registered with the gatekeeper is assigned as the User's H.323 Alias.

This system is used because having a set of easily-identifiable numbers or characters to designate other Users is a much simpler method than using IP Addresses. Assigning an H.323 Alias to a Meeting configured on the HD VISUAL COMMUNICATION SERVER allows each terminal to directly enter Meetings using an H.323 Alias.

The gatekeeper embedded in the HD VISUAL COMMUNICATION SERVER holds H.323 Alias and IP Address information for all registered Endpoints and Meetings. This makes it easy to enter Meetings and call other Users with an H.323 Alias.

The H.323 Alias can be assigned during the following configuration tasks:

- User H.323 Alias: When providing / changing User information settings
- Meeting H.323 Alias: When providing / changing Meeting information settings



# Chapter 2: HD VISUAL COMMUNICATION SERVER Setup

---

## VC ONLINE Login

To use HD VISUAL COMMUNICATION SERVER, it is necessary to create a Meeting and User Account. These operations are carried out by logging into VC ONLINE via a Web browser.

When using VC ONLINE, login via the Administrator restricted account accessed from the following URL.

URL: [http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)  
Login Account: Administrator

Logging in to VC ONLINE with a general User Account will allow individual Users to access the scheduling system or make changes to their own information.

Also, it is possible to get help even without logging in, such as by referring to the downloadable manual or help document.

*For more information about creating a User Account, refer to “Creating a User” (p. 13).*

*For more information about configuring a Meeting, refer to “Configuring a Meeting” (p. 23).*

*For more information about using the Reservation system, refer to “Chapter 6: Using the Reservation System” (p. 58).*

*For more information about configuring personal information, refer to “Configuring Personal Information” (p. 76).*

---

# License

The HD VISUAL COMMUNICATION SERVER license is administered by the HD VISUAL COMMUNICATION SERVER's License Server function, and is calculated by the number of simultaneously concurrent calls.

## **Server License**

License used to access HD meetings.

## **PC Endpoint License**

License for using PC Endpoint.

## **Firewall Traversal License**

License for using Firewall Traversal.

## **Mobile Endpoint License**

License for using Mobile Endpoint.

## Confirm License

- 1** Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2** Select [Licenses] from the [Server] menu.  
The [Licenses] screen will be displayed.

In [License Numbers], confirm the total number of licenses and the current number of licenses being used.

In [Licenses] (the sub-menu inside the main menu [Licenses]), the license registration date can be confirmed.

# Starting and Stopping the HD VISUAL COMMUNICATION SERVER

During installation, the HD VISUAL COMMUNICATION SERVER is configured to automatically start when the OS starts, and automatically stop when the OS stops.

## HD VISUAL COMMUNICATION SERVER Manual Startup

The procedure for starting the HD VISUAL COMMUNICATION SERVER by manual command will now be explained.

- 1 Right-click on the Server Desktop, and click on [Open Terminal] in the Menu.  
The Terminal Software will open.
- 2 Execute the following command in the terminal software.

```
# /usr/local/vn/bin/vnstart
```

## HD VISUAL COMMUNICATION SERVER Manual Close

The procedure for closing the HD VISUAL COMMUNICATION SERVER by manual command will now be explained.

### Note

Do not close the HD VISUAL COMMUNICATION SERVER while still using conference, etc.

- 1 Right-click on the Server Desktop, and click on [Open Terminal] in the Menu.  
The Terminal Software will open.
- 2 Execute the following command in the Terminal Software.

```
# /usr/local/vn/bin/vnstop
```

### Note

After closing the server, wait about one minute before starting it again.

---

# HD VISUAL COMMUNICATION SERVER Processes

Processes used in HD VISUAL COMMUNICATION SERVER Version 6.0 will now be explained.

*For more information about process confirmation, refer to “How to Display Processes” (p. 67).*

<b>Process</b>	<b>Description</b>
<code>cnode_mcu</code>	MCU and VCMP control process (CPN)
<code>beam.smp</code>	Erlang programming language environment (CPN)
<code>vnncs</code>	Network Check Server
<code>vnproxy</code>	H.239 Presentation (Data Transmission)
<code>vnutil</code>	Utility (Periodical Log cleaning)
<code>vnlnmsvr</code>	License Server
<code>vnbms</code>	Buddy Manager (Presence)
<code>vnpps</code>	Presence Manager (Presence)
<code>vngk</code>	Gatekeeper
<code>vnmcu</code>	MCU
<code>vnvnc</code>	H.239 Presentation (Control)
<code>vnapi</code>	API Server (interface between programs)

# Chapter 3: Basic Configuration

This section describes configuration needed to use HD VISUAL COMMUNICATION SERVER, such as creating a User and Meeting.

## Creating a User

Methods to add, edit and delete User information will now be explained. A User Account is required to access the HD VISUAL COMMUNICATION SERVER.

Only the User “Administrator” is created as default during installation.

### Create User Information

- 1** Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) with administrator privileges (Administrator).
- 2** Click on [User] in the [User] Menu.  
The [User] screen will be displayed.
- 3** Click the [Add] button.  
The [Add User] screen will be displayed.

#### Hint

At this stage, a new User can be added by clicking the [Add by Copy] button after selecting a previously added user from the list, and then by entering the selected User’s settings underneath.

- 4** Select a user type in [User Type], and enter a [Login Name].  
If necessary, set other items.

*For more information about setup items, refer to “[Add User] Screen” (p. 14).*

- 5** When entry is complete, click the [Add] button.  
The confirmation dialog box will be displayed.
- 6** Click [OK].  
A User will be added based on the provided information.

**Note**

The registration data may not be displayed in the VC ONLINE [Users] list immediately after starting the HD VISUAL COMMUNICATION SERVER due to timing constraints. In such instances, access it after an interval of time.

**[Add User] Screen**

Setting Category	Description
User ID	Number to identify Users accessing HD VISUAL COMMUNICATION SERVER. The System will automatically assign User ID numbers, which cannot be edited.
User Type	Type of User account: <b>PCEP:</b> PC Endpoint terminal <b>H.323:</b> Dedicated H.323 terminal (set top box, etc.) <b>FT Client:</b> Firewall Traversal client <b>SIP:</b> Dedicated SIP Client  <b>Note</b> This software does not support "SIP".
Login Name	Required field. Enter Name used to login to HD VISUAL COMMUNICATION SERVER. Use alphanumeric characters. Non-alphanumeric characters, spaces or < > " ' ! \& symbols cannot be used.
Password	Required field. Enter Password used to login. Use alphanumeric characters. Non-alphanumeric characters, spaces or < > " ' ! \& symbols cannot be used.
H.323 Alias	Required field if [PCEP] or [H.323] is selected for [User Type]. Enter the User name of the endpoint you wish to use, which has been registered with the gatekeeper. Use alphanumeric characters. Non-alphanumeric characters, spaces or < > " ' ! \& symbols cannot be used.
E.164 Number	Enter the User number of the endpoint you wish to use, which has been has registered with the gatekeeper.
User Template	Designate the required User template in order to view registered User templates.  <i>For more information about User templates, refer to "Create a User Template" (p. 18).</i>
Share Phone Book	Select whether to display in the Share Phone Book the user information that is registered on the server. <b>NONE:</b> Do not display the information in the Share Phone Book. <b>H323ALIAS:</b> Display the information in the Share Phone Book using H.323 aliases for the user contact information. <b>E164NUMBER:</b> Display the information in the Share Phone Book using E.164 numbers for the user contact information. <b>IPADDRESS:</b> Display the information in the Share Phone Book using IP addresses for the user contact information.

Setting Category	Description
Last Name	Enter name (Last Name) used to login. This is displayed as [End Point Name]. Alphanumeric / non-alphanumeric (e.g. Japanese) characters and symbols can be used. Do not use spaces or < > " ' ! \& symbols. In addition, do not use slashes (/) if you intend to display the user in the Share Phone Book.
Middle Name	Enter name (Middle Name) used to login. This is displayed as [End Point Name]. Alphanumeric / non-alphanumeric (e.g. Japanese) characters and symbols can be used. Do not use spaces or < > " ' ! \& symbols. <b>Note</b> [End Point Name] will not be displayed if two-byte characters are used for “Last Name” and “First Name”
First Name	Enter name (First Name) used to login. This is displayed as [End Point Name]. Alphanumeric / non-alphanumeric (e.g. Japanese) characters and symbols can be used. Do not use spaces or < > " ' ! \& symbols. In addition, do not use slashes (/) if you intend to display the user in the Share Phone Book.
e-mail	Enter the User’s e-mail address. This is used to receive Meeting notification e-mails.
IP Address	Enter this when registering the user without registering it with the terminal gatekeeper. You can leave this blank under normal circumstances.
Administrator	Configure administrator privileges for users. <b>Administrator:</b> Register the user as an administrator. <b>User:</b> Specify the user as a general user. General users can only use the reservation system and edit their personal information. <b>User (Online browsing restricted):</b> Specify the user as a general user that cannot access VC ONLINE. <b>Note</b> Be sure to register at least one user as an administrator.

### [Basic] Tab

Setting Category	Description
Max Bandwidth	The maximum bandwidth (bit rate) the User can use for calls. In P2P connections, the maximum bandwidth setting is compared to that of the other participant, and the lower value is used for the connection. This setting is also used to determine the transmission resolution during CPN meetings. <i>For more information about determining the transmission resolution, refer to “Changing Transmission Resolutions for Endpoints with Insufficient Throughput” (p. 46).</i>
Application Sharing Bandwidth	Enter the maximum bandwidth (bit rate) the User can use when the Application Sharing function is used. When the User connects to a meeting, this setting is compared to the [Application Sharing Bandwidth] setting of the meeting, and the connection is made with the lower of the two values.

Setting Category	Description
Bandwidth Setting of PCEP Profile	Select whether to reference the bandwidth configured in the PC Endpoint profile. <b>ENABLE:</b> Reference the profile setting. <b>DISABLE:</b> Do not reference the profile setting.
FT Connection	Select the Firewall Traversal setting. <b>Autodetect FT:</b> Automatically determine whether Firewall Traversal is necessary when connecting to the HD VISUAL COMMUNICATION SERVER, and connect via the FT personal client only if necessary. <b>Autodetect GC:</b> Automatically determine whether Firewall Traversal is necessary when connecting to the HD VISUAL COMMUNICATION SERVER, and connect via the FT group client only if necessary. <b>Use FT:</b> Always use the FT personal client when connecting to the HD VISUAL COMMUNICATION SERVER. <b>Use GC:</b> Always use the FT group client when connecting to the HD VISUAL COMMUNICATION SERVER. <b>NONE:</b> Connect without using Firewall Traversal. <b>Note</b> FT personal clients can only be used from a PC Endpoint terminal. Therefore, [Autodetect FT] and [Use FT] cannot be used from an H.323 terminal.
FT Tunnel Type	Select the tunnel type for Firewall Traversal. Configure this only when using Firewall Traversal. <b>NONE:</b> Do not specify a tunnel type. <b>TCP:</b> Connect using a TCP tunnel. <b>UDP:</b> Connect using a UDP tunnel.

## [Forwarding] Tab

Setting Category	Description
Set	Select the checkbox to enable the [Action], [Forwarding Type], and [Forwarding Destination] settings. This can be configured for each [Condition].
Condition	Indicates the status; [Busy], [Online] (User can be called), or [Offline] (User cannot be called). The [Action], [Forwarding Type], and [Forwarding Destination] settings can be configured for each status.
Action	Select the [Confirm], [Reject] or [Forward] Action when answering calls.
Forwarding Type	Select the forwarding destination type when selecting [Forward] as an [Action] <b>H.323 Alias:</b> When selecting an H.323 Alias as a forwarding destination. <b>E.164 Number:</b> When selecting an E.164 Number as a forwarding destination. <b>IP Address:</b> When selecting an IP Address as a forwarding destination.



Setting Category	Description
Forwarding Destination	When selecting [Forward] as an [Action], enter a forwarding destination that complies with a type specified in the [Forwarding Type].

## Edit User Information

- 1 Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2 Click on [User] from the [User] menu.  
The [User] screen will be displayed.
- 3 Select the User you wish to edit from the [Users] list.  
The [Change] button will be displayed.
- 4 Click the [Change] button.  
The [Edit User] screen will be displayed.
- 5 Make the desired changes.  
*For more information about setup items, refer to “[Add User] Screen” (p. 14).*
- 6 Click the [Change] button from the [Edit User] screen.  
The confirmation dialog box will be displayed.
- 7 Click [OK].  
The edited information will be saved.

## Delete User Information

- 1 Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2 Click on [User] from the [User] menu.  
The [User] screen will be displayed.
- 3 Click the checkbox of the User you wish to delete from the [Users] list.  
The checked [Delete] button will be displayed.
- 4 Click the [Delete] button.  
The designated User will be deleted.

## Create a User Template

The User Template is a template of User Account information.

- 1 Click on [User Template] from the [User] menu.  
The [User Template] screen will be displayed.
- 2 Click the [Add] button.  
The [Add User Template] screen will be displayed.
- 3 Enter the template name and set other fields as necessary.  
*For more information about setup items, refer to “[Add User Template] Screen” (p. 18).*
- 4 Click the [Add] button.  
The specified User Template information will be registered.

---

### [Add User Template] Screen

Setting Category	Description
Template ID	ID number for User Template. The System will automatically assign Template ID numbers. They cannot be entered or edited.
Template Name	Required field. Enter Template name. Alphanumeric characters will be used. Non-alphanumeric characters, spaces or symbols cannot be used.
Max Bandwidth	The maximum bandwidth (bit rate) the User can use for calls.
Application Sharing Bandwidth	Enter the maximum bandwidth (bit rate) the User can use when the Application Sharing function is used.
Bandwidth Setting of PCEP Profile	Select whether to reference the bandwidth configured in the PC Endpoint profile. <b>ENABLE:</b> Reference the profile setting. <b>DISABLE:</b> Do not reference the profile setting.

Setting Category	Description
FT Connection	<p>Select the Firewall Traversal setting.</p> <p><b>Autodetect FT:</b> Automatically determine whether Firewall Traversal is necessary when connecting to the HD VISUAL COMMUNICATION SERVER, and connect via the FT personal client only if necessary.</p> <p><b>Autodetect GC:</b> Automatically determine whether Firewall Traversal is necessary when connecting to the HD VISUAL COMMUNICATION SERVER, and connect via the FT group client only if necessary.</p> <p><b>Use FT:</b> Always use the FT personal client when connecting to the HD VISUAL COMMUNICATION SERVER.</p> <p><b>Use GC:</b> Always use the FT group client when connecting to the HD VISUAL COMMUNICATION SERVER.</p> <p><b>NONE:</b> Connect without using Firewall Traversal.</p> <p><b>Note</b> FT personal clients can only be used from a PC Endpoint terminal. Therefore, [Autodetect FT] and [Use FT] cannot be used from an H.323 terminal.</p>
FT Tunnel Type	<p>Select the tunnel type for Firewall Traversal. Configure this only when using Firewall Traversal.</p> <p><b>NONE:</b> Do not specify a tunnel type.</p> <p><b>TCP:</b> Connect using a TCP tunnel.</p> <p><b>UDP:</b> Connect using a UDP tunnel.</p>

## Search Filter in User List

A search filter can be applied in the [User] screen to locate Users from the [Users] list.

By entering the information you wish to filter in the text box, filter search results will be displayed.

By default, the search filter will search through the following User account fields for occurrences of the search string: [Login Name], [Last Name], [Middle Name], [First Name], [e-mail], [H.323 Alias] and [E.164 Number]. To disable a field as a condition for the search filter, clear the checkbox of the respective field.

---

# Configuring User Groups

Methods to add, edit and delete Group information will now be explained. By adding Group information, multiple users can be combined to form a Group, and it is possible to make groups belong to another group. Users and Groups can also belong to more than one User Group. The use of User Groups is convenient when configuring access control and the reservation system. New Groups can be created and configured with the required Users as and when necessary. “Default” Groups registered when the system is first used include all registered User accounts.

## Configure a New Group

- 1** Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2** Click on [Group] from the [User] menu.  
The [Group] screen will be displayed.
- 3** Click the [Add] button.  
The [Add Group] screen will be displayed.
- 4** Enter the [Group Name] and set other fields as necessary.  
*For more information about setup items, refer to “[Add Group] Screen” (p. 21).*
- 5** Click the [Add] button.  
The confirmation dialog box will be displayed.
- 6** Click [OK].  
The new Group information specified will be registered.

## [Add Group] Screen

Setting Category	Description
Group ID	ID number used to identify HD VISUAL COMMUNICATION SERVER Groups. The System automatically assigns Group ID numbers, which cannot be edited.
Group Name	Required field. Enter the Group name. Alphanumeric / non-alphanumeric characters and symbols can be used.
Subordinate User	Add Subordinate Users to a Group From the displayed User list, select the checkbox next to the User name you wish to add.
Subordinate Group	Add Subordinate Groups to a Group From the displayed Group list, select the checkbox next to the Group name you wish to add. With this function, it is possible to configure and manage Groups using a hierarchical structure.
	<p><b>Note</b></p> <p>It is not possible to add Groups located in a superior position to your own Group.</p>

### Edit Group Information

- 1 Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2 Click [Group] from the [User] menu.  
The [Group] screen will be displayed.
- 3 Select the Group you wish to edit from the [Groups] list.  
The [Change] button will be displayed.
- 4 Click the [Change] button.  
The [Edit Group] screen will be displayed.
- 5 Make the necessary changes.  
*For more information about setup items, refer to “[Add Group] Screen” (p. 21).*
- 6 Click on [Change] from the [Edit Group] screen.  
The confirmation dialog box will be displayed.
- 7 Click [OK].  
The edited information will be saved.

## Delete Group Information

- 1** Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2** Click [Groups] from the [User] menu.  
The [Groups] screen will be displayed.
- 3** From the [Groups] list, select the checkbox next to the Group you wish to delete.  
The checked [Delete] button will be displayed.
- 4** Click the [Delete] button.  
The denoted Group will be deleted.

## Search Filter in Group List

A search filter can be executed in the [Groups] screen to locate Groups from the [Groups] list.  
By entering the information you wish to filter in the text box, filter search results will be displayed.

---

# Configuring a Meeting

Methods to add, edit and delete Meeting information will now be explained. Meetings can be seen as a virtual conference room. Meeting settings are diverse so they can be set according to your meeting agenda.

## Note

Because it takes time to add a Meeting or to change a setting, there will be a delay of approximately 15 seconds before a sound connection can be made after adding or re-setting a Meeting or following the conclusion of a Meeting.

## Configure Meeting Information

- 1 Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2 Click on [Meeting] from the [Meeting] menu.  
The [Meeting] screen is displayed.
- 3 Click the [Add] button.  
The [Add Meeting] screen is displayed.

## Hint

At this stage, a new Meeting can be added by clicking the [Add by Copy] button after selecting a previously added Meeting from the list, and then by inserting the selected Meeting's settings underneath.

*For more information about setup items, refer to "[Add Meeting] Screen" (p. 24).*

- 4 Enter the [Meeting Name] from the [Basic] tab.  
Set other Meeting items as required. If items apart from [Meeting Name] are not entered or edited, then default settings will be used.
- 5 Click the [Add] button.  
The confirmation dialog box will be displayed.
- 6 Click the [OK] button.  
The specified meeting information will be added.

## Notes

- By default, the maximum number of usable Meetings, such as normal Meetings or scheduled Meetings that can be held on the HD VISUAL COMMUNICATION SERVER is 100.
- The maximum connection time for a meeting is 8 hours. After 8 hours elapse from the start of a meeting, connections for all terminals will be severed.

---

## [Add Meeting] Screen

For information about the [Detail], [Access], [Presenter] and [VCMP] tabs, refer to “Chapter 5: Using Meetings (Application)” (p. 40).

### [Basic] Tab

Setting Category	Description
Meeting ID	ID number used to identify HD VISUAL COMMUNICATION SERVER Meetings. The system will automatically assign Meeting ID numbers. This cannot be entered or edited.
Meeting Name	Required field. Enter the Meeting name. Alphanumeric / non-alphanumeric (e.g. Japanese) characters and symbols will be used. Spaces and <> " ' ! \ & symbols cannot be used. The User will select the Meeting Name. A unique, easy-to-understand name should be selected for the Meeting.
H.323 Alias	Enter the H.323 Alias assigned to a Meeting. Alphanumeric characters will be used. Non-alphanumeric characters, spaces and <> " ' ! \ & cannot be used. An H.323 alias cannot contain only numerical character numbers; it must also include alpha characters. If nothing is entered, it will be automatically assigned when registering.
E.164 Number	Enter the E.164 number assigned to a Meeting.
Max Members	Required field. Enter the maximum number of Meeting members. <b>Note</b> If the configured maximum number of participants exceeds that allowed by the Server License, no error will be displayed but the number of participants will be restricted to the license value.
Meeting Type	Selects the Meeting Type. <b>Normal:</b> There is no meeting chairman, so all participants have the same right to speak. Suitable mostly for small meetings with only a few participants. <b>Loopback:</b> Used to verify the Endpoint connection. <b>Note</b> When [Loopback] is selected, [CPN] will be set to [OFF]. <b>Moderated:</b> Selected when the Meeting chairman controls the audio of other participants. <b>Note</b> When using the Moderated Meeting type, it is necessary to configure the Meeting participants and Chairman. Select the participants from [Access List(Group) ] or [Access List(User) ] under the [Access] tab. When Users selected from the [Access] tab are displayed in the [Presenter] tab list, select 1 person to be the Chairman.



Setting Category	Description
Meeting Mode	<p>Selects the initial mode for the Moderated Type Meeting. These modes are only valid when the selected [Meeting Type] is [Moderated].</p> <p><b>Open Forum:</b> Participants can hear the Chairman and those the Chairman has granted permission to speak.</p> <p><b>Side Meeting:</b> Only the Chairman and those the Chairman has granted permission to speak can hear each other. Conversations cannot be heard by participants who have not been granted permission to speak.</p> <p><b>Presenting:</b> Only the Chairman can be heard by all participants.</p> <p><b>Lecture:</b> Under default conditions, only the Chairman can be heard by all participants. In such cases, only the Chairman's video appears on the General Users' screens, while video of each General User appears on the Chairman's screen in a multiple video screen layout.</p> <p>If the Chairman grants a General User permission to speak, the Chairman and this General User will be heard by all participants. In such cases, the screens of each of the General Users will switch to a multiple video screen layout displaying the Chairman and the user the Chairman has granted permission to speak.</p> <p><b>Notes</b></p> <ul style="list-style-type: none"> <li>You can not change modes while a meeting conducted in [Lecture] mode is in progress.</li> <li>When [CP4] is selected for an SD resolution (CIF, 4CIF) in [Lecture] mode, the Chairman's display will be split into a 4-screen layout, but the General Users' displays will not. Instead, the CP layout of General Users will change according to the number of participants that have been granted permission to speak.</li> </ul>
Operator Mode	<p>Configure this mode for meetings in which the Chairman simply controls the speakers and display modes, without actively participating.</p> <p>These modes are only valid when the selected [Meeting Type] is [Moderated].</p> <p><b>Disable:</b> Disables use of the Operator Mode.</p> <p><b>MIC OFF:</b> Permission to speak is not granted to any participants at the start of the meeting.</p> <p><b>MIC ON:</b> Grants all participants permission to speak at the start of the meeting.</p> <p><b>Note</b></p> <p>[Operator Mode] can only be used when the selected [Meeting Mode] is [Open Forum].</p>
Bandwidth Control	<p>Selects the method for controlling the Meeting bandwidth.</p> <p><b>STATIC:</b> Each endpoint that enters the conference is limited to the bandwidth configured in the [Max Bandwidth (ep)] parameter.</p> <p><b>DYNAMIC:</b> The server will dynamically allocate the bandwidth equally among the Meeting participants. The bandwidth set for [Max Bandwidth (ep)] is the maximum endpoint bandwidth. Once the Meeting Bandwidth has reached the value set in [Max Bandwidth (conf)], the server will automatically adjust the bandwidth allocated to each endpoint.</p>

Setting Category	Description
Max Bandwidth (conf)	<p>Required field. Enter the required maximum Meeting Bandwidth. When the [Bandwidth Control] is [STATIC], calls that exceed the below calculation formula for the “Total Meeting Bandwidth” are not connected in principal.</p> <p>When the [Bandwidth Control] is [DYNAMIC], configured bandwidth is shared equally between participants. In such a case, the number of people configured in [Max Members] will exceed the number of Meeting participants.</p> <p>Transmission/Reception Bandwidth of a Terminal = Maximum Bandwidth (ep) × 2</p> <p>Total Meeting Bandwidth = (Transmission/Reception Bandwidth of a Terminal) × Maximum Number of Participants</p>
Maximum Bandwidth (ep)	<p>Required field. Enter the maximum bandwidth used when Endpoints participating in the meeting transmit audio and video bandwidth.</p> <p>Meetings held via the HD VISUAL COMMUNICATION SERVER are used to select Endpoint transmission bandwidth. Endpoints cannot send data that exceeds this value.</p>
Audio Codec	<p>Selects audio codec.</p> <p><b>G.711 μ-law:</b> 3.4 kHz sampling frequency, 64 kbps bit rate</p> <p><b>G.711 A-law:</b> 3.4 kHz sampling frequency, 64 kbps bit rate</p> <p><b>G.722:</b> 7 kHz sampling frequency, 64 kbps bit rate</p> <p><b>MPEG4-AAC-LC:</b> 14 kHz sampling frequency, 32/64 kbps bit rate</p> <p><b>Auto:</b> Use audio transcoding to connect using an audio codec that can be used by the terminals.</p>
Video	<p>If [Disable] is selected, an audio-only meeting will be created, and the video setting then becomes invalid.</p> <p>For normal Meetings set Video to [Enable], and for audio-only Meetings, set Video to [Disable].</p>
CPN	<p>If [ON] is selected, [CPN Layout Number] selection is enabled, allowing you to conduct meetings in multiple video screen layouts.</p> <p>If [OFF] is selected, [CPN Layout Number] selection is disabled, allowing you to conduct meetings in only one-screen layouts.</p> <p><b>Note</b></p> <p>The options that are available for the [Video Codec] and [Resolution] settings differ depending on whether [ON] or [OFF] is selected here.</p>
Video Codec	<p>Video Codec is selected from [H.261], [H.263], [H.263+], [H.264], [H.264 High Profile], or [H.264 Auto].</p> <p><b>Note</b></p> <p>[H.261] and [H.263+] cannot be selected if the [CPN] setting is set to [OFF].</p>

Setting Category	Description
Resolution	<p>Selects video resolution. It refers to the size of the downstream terminal when using multiple video screens. Options to set Resolution differ depending on the [CPN] and [Video Codec] configurations.</p> <p><b>CIF:</b> Size - (352×288)  <b>4CIF:</b> Size - (704×576)  <b>W432P:</b> Size - (768×432)  <b>HD 720p:</b> Size - (1280×720)  <b>HD 1080p:</b> Size - (1920×1080)</p> <p><i>For more information about restrictions to the [Resolution] setting according to [CPN] and [Video Codec] configurations, refer to “Restrictions According to [CPN] and [Video Codec] Configurations” (p. 48).</i></p> <p><b>Note</b>  “Upstream” refers to transmissions from an Endpoint to a Meeting, whereas “Downstream” refers to transmissions from a Meeting to an Endpoint.</p>
Video Switch Mode	<p>Selects the method for video switching during a Meeting.</p> <p><b>Audio:</b> A method called “Voice Activation” that enables video switching in response to audio.</p> <p><b>Time:</b> Video switches at a set time interval, defined by the Video Switch Time parameter.</p> <p><b>Chairman:</b> The Chairman controls the video for all Endpoints in the Meeting. This mode is only available in a Moderated Type Meeting.</p>
Video Switch Time	<p>Only available when [Time] is selected as the [Video Switch Mode]. Enter the video screen switch time.</p>
CPN Layout Number	<p>This setting can only be configured when the [CPN] setting is set to [ON].</p> <p>Selects the maximum number of screens that can be displayed in a layout during meetings.</p> <p>The values that can be selected differ according to video quality.</p> <p><b>SD Quality (CIF or 4CIF):</b> Select from 1, 3, 4, 6, 8, 10, 13, or 16.</p> <p><b>HD Quality (W432P or HD 720p):</b> Select from 1, 2, 3, 4, 8, 10, 13, or 16.</p> <p><b>HD Quality (HD 1080p):</b> Select from 4 or 16.</p> <p>The video layout of a CPN Meeting changes dynamically depending on the number of connected Endpoints.</p> <p><i>For more information about layout transitions according to the number of connected Endpoints, refer to “Multiple Video Screen Layout” (p. 54).</i></p>
H.239	<p>The H.239 Presentation function can be used to send computer images such as RGB images simultaneously with audio and video from terminals on the HD VISUAL COMMUNICATION SERVER.</p>
H.239 Bandwidth	<p>Enter the bandwidth to use for H.239.</p> <p>Under default conditions, this is set to half the value specified in [Max Bandwidth (ep)].</p>

Setting Category	Description
H.239 Codec	Select from [H.263+] or [H.264] for the codec to use for H.239. <b>Note</b> Select [H.263+] when conducting meetings that include SD quality Endpoints. If you select [H.264], H.239 is not sent to the SD quality Endpoints.
H.239 Resolution	Only available when [H.264] is selected for [H.239 Codec]. Select from [XGA], [HD 720p], or [HD 1080p]. This will be fixed at [XGA] when [H.263+] is selected for [H.239 Codec].
Application Sharing	Select [ON] to use the Application Sharing function of PC Endpoint.
Application Sharing Bandwidth	Enter the maximum bandwidth used for the Application Sharing function. The default setting is [2048] Kbps.

### Hints

- When connecting Meetings using H.239 with a specified [Max Bandwidth (ep)], bandwidths specified as [H.239 Bandwidth] will be used with [H.239] and the remaining audio bandwidth will be subtracted and used as video bandwidth. However, if the video bandwidth is lower than 128 Kb/s, that 128 Kb/s will be saved for video bandwidth and the remaining bandwidth will be allocated to H.239.
- Apart from the [Max Bandwidth] category which is used to set video and audio bandwidth, [H.239 Bandwidth] can be used to configure bandwidth used for H.239 Presentations.  
H.239 Presentation bandwidth restriction is applied to the transmission of application images.
  - The bandwidth used for connections between the sending Endpoint and the server will be determined by comparing the H.239 rate setting of the terminal and the [H.239 Bandwidth] of the Meeting, and selecting the one with the lower value for transmission.
  - The Meeting's [H.239 Bandwidth] will be used when transmitting from the server to the receiving endpoint.

### Note

If [H.239] is set to [ON], there may be problems displaying video on H.323 terminals that do not support H.239. In such a case, set the Meeting's [H.239] to [OFF].

### About Bandwidth

[Maximum Bandwidth (ep)] refers to the maximum bandwidth each endpoint in the meeting can use for transmissions per channel.

[Max Bandwidth] defines total audio and video stream bandwidth that can be used for a meeting.

When [Bandwidth Control] is set to [STATIC], a Meeting cannot be connected if participants' total bandwidth exceeds [Max Bandwidth] even if the maximum number of members has not been exceeded.

When [Bandwidth Control] is set to [DYNAMIC], the [Max Bandwidth] is allocated equally among the Meeting members. However, the number of people participating in a Meeting cannot exceed the specified [Max Members].

## Edit Meeting Information

- 1** Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2** Click on [Meeting] from the [User] menu.  
The [Meeting] screen will be displayed.
- 3** Select the Meeting you wish to edit from the [Meetings] list.  
The [Change] button will be displayed.
- 4** Click the [Change] button.  
The [Edit Meeting] screen will be displayed.
- 5** Make the required changes.  
*For more information about setup items, refer to “[Add Meeting] Screen” (p. 24).*
- 6** Click the [Change] button on the [Edit Meeting] screen.  
The confirmation dialog box will be displayed.
- 7** Click [OK].  
The edited information will be saved.

## Search Filter in Meeting List

A search filter can be executed in the [Meeting] screen to locate Meetings from the [Meetings] list.

By entering the information you wish to filter in the text box, filter search results will be displayed.

By default, the Search filter will search through the [Meeting Name], [H.323 Alias] and [E.164] fields. To disable a field as a condition for the search filter, clear the checkbox of the respective field.

# Chapter 4: Using Meetings (Basic)

Methods to start and disconnect Meetings and to view call information managed by gatekeeper-registered Endpoints as well as by Meetings and the Gatekeeper will now be explained.

---

## Monitor Function

This function can display a list of call information managed by gatekeeper-registered Endpoints and by Meetings and the Gatekeeper. The displayed information is updated every 60 seconds.

*For more information about the [Control Panel] screen, refer to “[Control Panel] Screen” (p. 51).*

### Monitor Endpoint Information

- 1** Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2** Click on [Endpoint] from the [Monitor] menu. The [Monitor (Endpoint)] screen will be displayed. A list of Endpoints registered with the Gatekeeper is displayed in the [Monitor (Endpoint)] screen.

## [Monitor (Endpoint)] Screen

Category	Description
End Point Name	Displays the name identifying each Endpoint. The [End Point Name] displays the [First Name], [Middle Name] and [Last Name] that were set when originally registering as a User. If [First Name], [Middle Name] and [Last Name] have not been set, the [H.323 Alias] will be displayed.
End Point ID	Displays a unique ID that the Gatekeeper applies to each Endpoint.
H.323 Alias	Displays H.323 Alias of each Endpoint registered with the Gatekeeper.
E.164 Number	Displays E.164 Number of each Endpoint registered with the Gatekeeper. If left blank, that Endpoint's E.164 number will not be registered with the Gatekeeper.
IP Address	Displays the Endpoint IP address.
Terminal Type	Displays terminal type. <b>MCU:</b> HD VISUAL COMMUNICATION SERVER <b>H323:</b> H.323 terminal <b>PCEP:</b> PC Endpoint terminal
End Point Vendor	Displays the vendor information of each Endpoint.
Connection Status	Displays current connection status of each Endpoint. <b>Registered:</b> Possible call status registered with Gatekeeper. <b>Active Call Conference:</b> Connected to Meeting. <b>Active Call P2P:</b> Both Endpoints are connected via P2P.
Regist Time	Displays duration of time each Endpoint has been registered with the Gatekeeper.

### How to Confirm Detailed Endpoint Information

Select the required Endpoint in the [Monitor (Endpoint)] screen, and click the [Detail] button. The [Registered End Point] screen is displayed enabling the selected Endpoint's information to be viewed.

## Monitor Meeting Information

- 1 Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2 Click on [Meeting] from the [Monitor] menu.  
The [Monitor (Meeting)] screen will be displayed.  
A list of Meetings registered with the Gatekeeper will be displayed in the [Monitor (Meeting)] screen.

---

### [Monitor (Meeting)] Screen

Category	Description
Meeting Name	Displays the name identifying each Meeting.
Connected User	Displays the number of Endpoints currently connected to each Meeting.
H.323 Alias	Displays H.323 Alias of each Meeting.
E.164 Number	Displays E.164 Number of each Meeting. If left blank, that Meeting's E.164 number will not be registered with the Gatekeeper.
Lock Status	Displays lock status of each meeting.
Media Processor	Displays the MP server on which each meeting is operating. If all operations are on a single server, "localhost" will be displayed for all.

#### **It is not possible to connect to a locked meeting.**

How to Change the Lock Status of a Meeting

Select a Meeting to change its lock status. A [Lock] and [Free] button are displayed below a list of Meetings so click the appropriate button.

If the Meeting selected has a locked status, it will be unlocked. If the Meeting does not have a locked status, it will become locked.

#### **How to Confirm Meeting Members**

Select a Meeting to confirm its members. If Users are connected to that Meeting, a [Member List] button is displayed below a list of Meetings so click the appropriate button.

The [Meeting Member List] screen is displayed, enabling information relating to Users connected to the selected Meeting to be viewed.

The [Meeting Member List] screen allows you to check detailed connection information for each member.



## [Meeting Member List] Screen

Category	Description
User ID	Displays the User ID of the connected endpoint. If the endpoint is not a registered user, this will be blank.
Name	Displays the name of the endpoint.
H.323 Alias	Displays the H.323 alias of the connected endpoint.
E.164 Number	Displays the E.164 number of the connected endpoint.
IP Address	Displays the IP address of the connected endpoint.
Codec (Receiving Video)	Displays the receiving video codec of the connected endpoint.
Resolution (Receiving Video)	Displays the receiving video resolution of the connected endpoint.
Frame Rate (Receiving Video)	Displays the receiving video frame rate (fps) of the connected endpoint.
Bit Rate (Receiving Video)	Displays the receiving video bit rate (Kbps) of the connected endpoint.
Loss (Receiving Video)	Displays the receiving video packet loss of the connected endpoint.
Loss Rate (Receiving Video)	Displays the packet loss rate of the connected endpoint's receiving video. The loss rate appears in yellow if the loss rate is 0.2% or higher and in red if the loss rate is 2.0% or higher.
Codec (Sending Video)	Displays the sending video codec of the connected endpoint.
Resolution (Sending Video)	Displays the sending video resolution of the connected endpoint.
Frame Rate (Sending Video)	Displays the sending video frame rate of the connected endpoint.
Bit Rate (Sending Video)	Displays the sending video bit rate of the connected endpoint.
Codec (Receiving Audio)	Displays the receiving audio codec of the connected endpoint.
Bit Rate (Receiving Audio)	Displays the receiving audio bit rate of the connected endpoint.
Loss (Receiving Audio)	Displays the receiving audio packet loss of the connected endpoint.
Loss Rate (Receiving Audio)	Displays the packet loss rate of the connected endpoint's receiving audio. The loss rate appears in yellow if the loss rate is 0.2% or higher and in red if the loss rate is 2.0% or higher.

<b>Category</b>	<b>Description</b>
Codec (Sending Audio)	Displays the sending audio codec of the connected endpoint.
Bit Rate (Sending Audio)	Displays the sending audio bit rate of the connected endpoint.
Codec (Receiving H.239)	Displays the receiving H.239 codec of the connected endpoint.
Resolution (Receiving H.239)	Displays the receiving H.239 resolution of the connected endpoint.
Frame Rate (Receiving H.239)	This is always empty.
Bit Rate (Receiving H.239)	Displays the receiving H.239 bit rate of the connected endpoint.
Loss (Receiving H.239)	Displays the receiving H.239 packet loss of the connected endpoint.
Loss Rate (Receiving H.239)	Displays the packet loss rate of the connected endpoint's receiving H.239. The loss rate appears in yellow if the loss rate is 0.2% or higher and in red if the loss rate is 2.0% or higher.
Codec (Sending H.239)	Displays the sending H.239 codec of the connected endpoint.
Resolution (Sending H.239)	Displays the sending H.239 resolution of the connected endpoint.
Frame Rate (Sending H.239)	This is always empty.
Bit Rate (Sending H.239)	Displays the sending H.239 bit rate of the connected endpoint.
Right of Speaking (Receiving)	Displays the audio receiving status of the connected endpoint.
Right of Speaking (Sending)	Displays the audio sending status of the connected endpoint.
H.235	Displays the H.235 status of the connected endpoint.
H.235 Check Code	Displays the H.235 check code of the connected terminal. (Only when H.235 is enabled.)

## Monitor Call Information

- 1 Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2 Click on [Call] from the [Monitor] menu.  
The [Call] screen will be displayed.

### Hint

When multiple Endpoints are connected to the server, data showing only the number of connected Endpoints will be listed and displayed. For example, in the event that 2 Endpoints are connected to the server, 4 pieces of data, i.e. Endpoint A + Server and Endpoint B + Server will be displayed.

### [Call] Screen

Category	Description
End Point Name	Displays the name identifying each Endpoint.
End Point ID	Displays a unique ID that the Gatekeeper applies to each Endpoint.
H.323 Alias	Displays H.323 Alias of each Endpoint registered with the Gatekeeper.
E.164 Number	Displays E.164 Number of each Endpoint registered with the Gatekeeper. If left blank, that Endpoint's E.164 number will not be registered.
End Point Vendor	Displays the vendor information of each Endpoint.
Call ID	Information identifying calls is displayed.
Dest End Point Name	Displays H.323 Alias of the destination Endpoint.
Dest	Displays the Alias of the Destination.
Connection Status	Displays whether the Call is: Active Call Conference : Connected to Meeting, or Active Call P2P : Connected Peer to Peer
Regist Time	Displays duration of time since the call has been registered with the gatekeeper.

### How to Confirm Detailed Call Information

Select the required Call in the [Monitor (Call)] screen, and click the [Detail] button. The [Call Information] screen is displayed enabling the selected Call's information to be viewed.

---

# Calling to a Meeting

Methods to call an Endpoint to a Meeting will now be explained. Calling an Endpoint to a Meeting is executed from the [Monitor (Endpoint)] screen or the [Monitor (Meeting)] screen. Including an Endpoint in a Meeting requires that Endpoint's [Connection Status] to be "Gatekeeper Registered".

## Calling an Endpoint to a Meeting via the [Monitor (Endpoint)] Screen

Methods to call an Endpoint to a Meeting from the [Monitor (Endpoint)] screen will now be explained.

- 1** Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2** Click on [Endpoint] from the [Monitor] menu. The [Monitor (Endpoint)] screen will be displayed.
- 3** Select the Endpoint you wish to call. Select the checkbox of the Endpoint you wish to call from the Endpoint list. The menu and button to select a Meeting is displayed under the Endpoint list.
- 4** Select the applicable Meeting using one of the following methods.

### Select a Meeting with a Meeting ID

- ① Select [Input Meeting ID] from the pull-down menu below the Endpoint list.
- ② Enter the Meeting ID of the applicable Meeting in the text box.
- ③ Click the [Call to Meeting] button. "Updating was completed" message is displayed.

### Select a Meeting with an H.323 Alias

- ① Select [Input H.323 Alias] from the pull-down menu below the Endpoint list.
- ② Enter the H.323 Alias of the applicable Meeting in the text box.
- ③ Click the [Call to Meeting] button. "Updating was completed" message is displayed.

### Select a Meeting with an E.164 Number

- ① Select [Input E.164 Number] from the pull-down menu below the Endpoint list.

- ② Enter the E.164 Number of the applicable Meeting in the text box.
- ③ Click the [Call to Meeting] button.  
“Updating was completed” message is displayed.

### Select a Meeting from the List

- ① Click the [Select Meeting] button.  
The [Select Meeting] screen will be displayed.
- ② Select the applicable Meeting from the Meeting List.  
The [Call to Meeting] button is displayed in the lower part of the [Select Meeting] screen.
- ③ Click the [Call to Meeting] button.  
“Updating was completed” message is displayed.

- 5** Click [OK].  
The Selected Endpoint is then called.

#### Note

If two or more Endpoints are selected, there will be a delay before all Endpoints are called to the Meeting.

## Calling an Endpoint to a Meeting via the [Monitor (Meeting)] Screen

Methods to call an Endpoint to a Meeting from the [Monitor (Meeting)] screen will now be explained.

- 1** Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2** Click on [Meeting] from the [Monitor] menu.  
The [Monitor (Meeting)] screen will be displayed.
- 3** Select the applicable Meeting from the Meeting list.  
The field and button to select an Endpoint are displayed under the Meeting list.
- 4** Select the applicable Endpoint using one of the following methods.

### Select an Endpoint with a User ID

- ① Select [Input User ID] from the pull-down menu below the Meeting list.
- ② Enter the User ID of the applicable Endpoint in the text box.
- ③ Click the [Call to Meeting] button.  
“Updating was completed” message is displayed.

### Select an Endpoint with a H.323 Alias

- ① Select [Input H.323 Alias] from the pull-down menu below the Meeting list.
- ② Enter the H.323 Alias of the applicable Endpoint in the text box.
- ③ Click the [Call to Meeting] button.  
“Updating was completed” message is displayed.

### Select an Endpoint with a E.164 Number

- ① Select [Input E.164 Number] from the pull-down menu below the Meeting list.
- ② Enter the E.164 Number of the applicable Endpoint in the text box.
- ③ Click the [Call to Meeting] button.  
“Updating was completed” message is displayed.

### Select an Endpoint with an IP Address

- ① Select [Input IP Address] from the pull-down menu below the Meeting list.
- ② Enter the IP Address of the applicable Endpoint in the text box.
- ③ Click the [Call to Meeting] button.  
“Updating was completed” message is displayed.

### Select an Endpoint from the List

- ① Click the [Select EP] button.  
The [Select End Point] screen will be displayed.
- ② Select the applicable Endpoint from the Endpoint List  
The [Call to Meeting] button is displayed in the lower part of the [Select End Point] screen.
- ③ Click the [Call to Meeting] button.  
“Updating was completed” message is displayed.

- 5 Click [OK].  
The Selected Endpoint is then called.

#### Note

If two or more Endpoints are selected, there will be a delay before all Endpoints are called to the Meeting.

---

# Disconnecting an Endpoint from a Meeting

Methods to disconnect an Endpoint from a Meeting will now be explained.

## Disconnect an Endpoint from a Meeting List

### How to Disconnect an Endpoint from a Meeting

- 1** Click [Meeting] from the [Monitor] menu.  
The [Monitor (Meeting)] screen will be displayed.
- 2** From the Meeting list, select the Endpoint you wish to disconnect.  
The [Member List] button is displayed under the Meeting list.
- 3** Click the [Member List] button.  
The [Meeting Member List] screen will be displayed.
- 4** From the Endpoint list, check the Endpoint you wish to disconnect.  
The [Hangup] button will be displayed.
- 5** Click the [Hangup] button.  
The selected Endpoint will be disconnected.

### How to Disconnect All Endpoints from a Meeting

- 1** Click on [Meeting] from the [Monitor] menu.  
The [Monitor (Meeting)] screen will be displayed.
- 2** From the Meeting List, select the Meeting you wish to disconnect.  
The [Withdraw All] button will be displayed under the Meeting List.
- 3** Click the [Withdraw All] button.  
All Endpoints connected to the selected Meeting will be disconnected.

# Chapter 5: Using Meetings (Application)

Meetings that meet your needs can be created by adding a variety of functions. A number of useful Meeting functions will now be explained.

*For more details about configuring and editing Meetings, refer to “Configuring a Meeting” (p. 23).*

---

## Scheduling Meetings

When creating a Meeting, the default mode setting for Meeting availability is: ALWAYS. This can be changed by editing the Meeting Mode and designating a Meeting time so that changes are effective for the selected time only. By default, a maximum of 100 Meetings can be held simultaneously.

### Hint

Scheduled Meetings can only be created by Users with administrator privileges. General Users must use the “Reservation System” to create a meeting.

*For more information about reservation systems, refer to “Chapter 6: Using the Reservation System” (p. 58).*

Scheduled Meeting configuration is accessible from the [Detail] tab of the [Add Meeting] screen or the [Edit Meeting] screen. Select [SCHEDULED] from the [Activate] menu and execute the necessary settings.

### [Detail] Tab - Scheduled Meetings

---

Setting Category	Description
Activate	Selects the availability of the Meeting. <ul style="list-style-type: none"><li>• <b>ALWAYS:</b> Meeting is started when the HD VISUAL COMMUNICATION SERVER is started and is always available for use.</li><li>• <b>CLOSED:</b> The Meeting is not active. Change to this mode when access to the Meeting needs to be prohibited for a period but without actually deleting the Meeting.</li><li>• <b>SCHEDULED:</b> The Meeting has a scheduled Start and End time.</li></ul>

---



Setting Category	Description
Repeat Mode	<p>Selects whether to repeat a Scheduled Meeting.</p> <ul style="list-style-type: none"> <li>• <b>NO:</b> Meeting is not repeated.</li> <li>• <b>DAILY:</b> Meeting is held at the same time every day.</li> <li>• <b>WEEKLY:</b> Meeting is repeated on the same day and time every week.</li> <li>• <b>MONTHLY:</b> Meeting is repeated on the same date and time every month.</li> </ul>
Date	<p>Selects the date the Meeting is scheduled to start. This date can either be selected from the Calendar or entered in the yyyy-mm-dd format:</p> <ul style="list-style-type: none"> <li>• <b>yyyy:</b> Western calendar</li> <li>• <b>mm:</b> Month</li> <li>• <b>dd:</b> Date</li> </ul>
Start Time	Configures the start time for the Meeting.
End Time	Configures the end time and day for the Meeting. If any days coincide between the start and end time, change “this day” to “next day”.

---

# Suppressing Video Refresh Requests from Endpoints

Depending on the Endpoint, video refresh requests may be made to the server when packet loss occurs, for example. As the server transmits intra-frames in response to each video refresh request, the quality of the video transmitted from the server may decrease when several refresh requests are made, for example, during meetings with a large number of Endpoints.

When you use the ISC (Intraframe Suppression Control) function, intra-frames are transmitted only during specified time intervals, instead of in response to each video refresh request. This allows you to give the appearance of improved video quality.

You can configure the ISC function in the [Detail] tabs of the [Add Meeting] and [Edit Meeting] screens.

## [Detail] Tab - Intraframe Suppression Control (ISC)

Setting Category	Description
ISC	Select whether to use the ISC function. <b>ON:</b> Use the ISC function. <b>OFF:</b> Do not use the ISC function.
Time	Enter in seconds the time interval at which intra-frames are transmitted.
Change	Enter the number of connections for which the ISC function will be enabled.

## [Detail] Tab - Far End Camera Control

Setting Category	Description
Far End Camera Control	<b>ON:</b> Enable the far end camera control and video annotation functions. <b>OFF:</b> Disable the far end camera control and video annotation functions.

---

# Using the Share Phone Book

Select whether to display in the Share Phone Book the Meeting information that is registered on the server.

You can configure these settings in the [Detail] tabs of the [Add Meeting] and [Edit Meeting] screens.

## [Detail] Tab - Share Phone Book

Setting Category	Description
Share Phone Book	<p>Select whether to display in the Share Phone Book the Meeting information that is registered on the server.</p> <p><b>NONE:</b> Do not display the information in the Share Phone Book.</p> <p><b>H323ALIAS:</b> Display the information in the Share Phone Book using H.323 aliases for the Meeting contact information.</p> <p><b>E164NUMBER:</b> Display the information in the Share Phone Book using E.164 numbers for the Meeting contact information.</p> <p><b>Notes</b></p> <ul style="list-style-type: none"><li>• Information on a Meeting is displayed in the Share Phone Book only when the Meeting is available to be conducted.</li><li>• If a meeting name or H.323 alias includes a slash (/), it may not be displayed properly or may not be reachable for calling. When using the Share Phone Book, do not use slashes (/) in meeting names and H.323 aliases.</li></ul>

---

# Using Templates

A Meeting Template is used as a model for configuring a Meeting. It contains the basic Meeting configuration so that each time a new Meeting is created, the same information does not have to be entered.

Template configuration is accessed from the [Detail] tab of the [Add Meeting] screen or the [Edit Meeting] screen.

## [Detail] Tab - Templates

Setting Category	Description
Template Mode	By checking the checkbox, the currently configured meeting can be used to create a template.
Template ID	When referring to a previously made template, select the Template you wish to use.

### Notes

- The Template itself cannot be used as a Meeting.
- If you change a Template, all Meetings based on that Template will reflect the changes. If you want to change a single Meeting based on a Template, make the necessary changes to the applicable Meeting's information.

---

# Configuring Audio Details

You can configure latency and gain settings for audio.

You can configure these settings in the [Detail] tabs of the [Add Meeting] and [Edit Meeting] screens.

## [Detail] Tab - Audio

Setting Category	Description
Audio Latency	Required field. Meetings on the HD VISUAL COMMUNICATION SERVER buffer audio frames allow for stable audio synthesis. Value can be set at between 2 and 10.
Audio Gain Control	To avoid extreme audio volume changes, select whether to adjust the audio volume automatically.

---

# Changing Transmission Resolutions for Endpoints with Insufficient Throughput

If the actual throughput between Endpoints is less than the [Max Bandwidth (ep)] value configured for the Meeting, the transmission resolution to such Endpoints is automatically decreased.

The resolution used during transmission is automatically determined as follows based on the [Max Bandwidth (ep)] setting in the [Basic] tabs of the [Add Meeting] and [Edit Meeting] screens and the [Media Translator] settings in the [Detail] tabs.

- When the possible throughput between the Endpoint is equal to or greater than the [Max Bandwidth (ep)] value for the Meeting: HD 720p resolution
- When the possible throughput between the Endpoint is less than the [Max Bandwidth (ep)] value for the Meeting, but equal to or greater than the [W432P] value: W432P resolution
- When the possible throughput between the Endpoint is less than the [W432P] value for the Meeting, but equal to or greater than the [CIF1] value: CIF1 resolution
- When the possible throughput between the Endpoint is less than the [CIF1] value for the Meeting, but equal to or greater than the [CIF2] value: CIF2 resolution

You can configure these various values in the [Detail] tabs of the [Add Meeting] and [Edit Meeting] screens.

## [Detail] Tab - Speed Matching

Setting Category	Description
W432P	Select [ON] to enable W432P transmission. If you select [ON], enter the video bit rate required for W432P transmission.
CIF1	Select [ON] to enable CIF1 transmission. If you select [ON], enter the video bit rate required for CIF1 transmission.
CIF2	Select [ON] to enable CIF2 transmission. If you select [ON], enter the video bit rate required for CIF2 transmission.

# Using the Encryption Function

Configure settings for conducting meetings with H.235 encryption. These settings are enabled when the H.235 license is installed on the HD VISUAL COMMUNICATION SERVER.

## Note

This function may not operate depending on your country or region.

You can configure these settings in the [Detail] tabs of the [Add Meeting] and [Edit Meeting] screens.

## [Detail] Tab - Encryption

Setting Category	Description
NONE	Select this to conduct meetings without H.235 encryption.
ENCRYPTION	Select this to conduct encrypted meetings with terminals that support H.235 encryption only. If a terminal does not support H.235 encryption, it cannot connect to the meeting.
CONNECTIVITY	Select this to conduct encrypted meetings with terminals that support H.235 encryption and terminals that do not. Terminals that support H.235 encryption will connect with encryption, while terminals that do not support H.235 encryption will connect without it.

# Configuring Video Details

You can configure detailed video settings with the [Video] settings in the [Basic] tabs of the [Add Meeting] and [Edit Meeting] screens.

*For more information about [Basic] tab settings, refer to “[Add Meeting] Screen” (p. 24).*

## Restrictions According to [CPN] and [Video Codec] Configurations

The [Resolution] options that are available differ depending on the [CPN] and [Video Codec] settings configured in the [Basic] tab.

CPN	Video Codec	Resolution	
ON	H.263	CIF	
		4CIF	
	H.264	CIF	
		W432P	
		HD 720p	
		HD 1080p	
	H.264 High Profile	CIF	
		W432P	
		HD 720p	
		HD 1080p	
	H.264 Auto	CIF	
		W432P	
		HD 720p	
		HD 1080p	
	OFF	H.261	CIF
		H.263	CIF
4CIF			
H.263+		CIF	
		4CIF	
H.264		CIF	
		4CIF	
		HD 720p	
		HD 1080p	



<b>CPN</b>	<b>Video Codec</b>	<b>Resolution</b>
OFF	H.264 High Profile	CIF
		4CIF
		HD 720p
		HD 1080p

---

# Restricting Meeting Users

You can restrict Meeting Users or create a Meeting for specific Users only. Changes are made from the [Access] tab of the [Add Meeting] screen or the [Edit Meeting] screen.

## [Access] Tab

Setting Category	Description
Access Control Filter	Select [Access Control Filter] when restricting access. The default setting is [H323ALIAS]. <b>NONE:</b> No access control is applied so anybody can enter the Meeting. <b>IPADDRESS:</b> Access to the Meeting is restricted by IP Address. <b>H323ALIAS:</b> Access to the Meeting is restricted by H.323 Alias <b>H323ALIAS_IP:</b> Access to the Meeting is restricted by both IP Address and H.323 Alias. <b>SERVERCALL:</b> Participants cannot directly enter a Meeting; they have to be called into the Meeting by the server.
Access List (Group)	This function selects Groups to whom access will be granted. Select the checkbox for the Group to be granted access from the Access List. Deselect the checkbox to cancel the selection.
Access List (User)	This function selects Users to whom access will be granted. Select the checkbox for the User to be granted access from the Access List. Deselect the checkbox to cancel the selection.

# Conducting Moderated Meetings

With Moderated Meetings, it is possible for the Chairman to permit and prohibit speaking privileges by using [Control Panel]. To moderate a Meeting, the existence of a Chairman is necessary. When creating a meeting, select 1 User with Chairman privileges. Selecting a User with Chairman privileges is executed from the [Presenter] tab of the [Add Meeting] screen or the [Edit Meeting] screen.

## [Presenter] Tab

Setting Category	Description
Chairman	Select a Chairman when [Meeting Type] is set to [Moderated]. The User list selected from the Access list under the [Access] tab is displayed, enabling the Chairman to be selected.

## Moderate a Meeting

You can moderate meetings using the Control Panel. The operations that can be controlled vary depending on user privileges.

**Administrator privileges:** You can call users, disconnect, change channels, and display meeting participants in all meetings (excluding meetings not being conducted). You can also change the mode and control speaking privileges for moderated meetings. In addition, you can specify the speaker in lecture mode meetings.

**Chairman privileges:** In moderated meetings in which you hold chairman privileges, you can call users, disconnect, change channels, display meeting participants, change the mode, and control speaking privileges.

**General User:** In open meetings in which you can participate, you can call users, disconnect, and display meeting participants.

To use the Control Panel, log into VC ONLINE and select [Control Panel] from the [Monitor] menu.

## [Control Panel] Screen

Category	Description
Meeting Information	Displays a list of meetings that can be controlled. When you click a meeting to control, you will be taken to the control panel.
Members	A list of Users participating in the selected Meeting.
Hangup	Disconnect the selected user.
Permit Speaking	Allow the audio transmission from the selected user.
Prohibit Speaking	Prohibit the audio transmission from the selected user.

<b>Category</b>	<b>Description</b>
Call By List	Click to display a list of users that can be called. Select the user you want to call and click [Call] to allow a user to participate in the meeting.
Call By Input	Click to open the [Call By Input] screen. Select [Input User ID], [Input H.323 Alias], or [Input E.164 Number], and enter the corresponding user information. Click [Call] to call the user.
Change Mode	This is only available during moderated meetings. Click to open the [Change Mode] screen. You can select from [Open Forum], [Side Meeting], or [Presenting]. Click the [Change Mode] button after selection to change the meeting mode.
Change LC	This is only available in chairman moderated meetings in which the video switching method is set to [Chairman] and the chairman is present. Click to open the [Change LC] screen. Drag a user from the user list at the left to the layout screen at the right to change the display position of the user in the split-screen layout.
Change CPN Layout Number	This is only available during moderated meetings in CP mode. Click to open the [Change CPN Layout Number] screen. Click the [Edit] button after selecting the number of screens for the split-screen layout from the pull-down menu to change the CPN layout.  <i>For more information on the CPN layout numbers, refer to “[VCMP] Tab” (p. 53).</i>
Change VS	Click to open the [Change VS] screen. Select from [Audio], [Time], or [Chairman]. If you select [Time], you can also specify the switching interval. The video switching method changes when you click the [Change VS] button.
Update Now	Updates the displays of participating users to the most recent state.

---

# Conducting Multiple Video Screen Meetings

You can conduct meetings in multiple video screen layouts by configuring the [CPN] and [CPN Layout Number] settings in the [Basic] tabs of the [Add Meeting] and [Edit Meeting] screens.

You can also configure detailed settings for conducting multiple video screen meetings in the [VCMP] tab.

*For more information about [Basic] tab settings, refer to “[Add Meeting] Screen” (p. 24).*

---

## [VCMP] Tab

Setting Category	Description
VCMP Server	Specify the VCMP Server to use for the meetings. <i>For more information on VCMP Servers, refer to “Chapter 9: VCMP Servers” (p. 72).</i>
Fixed Position User	Selects a User from the displayed list whose video is to be permanently fixed as the No.1 video window in the CPN Meeting. However, when layout 16 is selected, the video screens are always displayed in a 16-screen layout regardless of the number of connected Endpoints. <i>For more information about multiple video screens, refer to “Multiple Video Screen Layout” (p. 54).</i>

### Note

Due to the time it takes to configure a CPN Meeting, there will be a delay of approximately 15 seconds before a CPN Meeting can be entered when adding / editing a Meeting, after disconnecting an Endpoint or when rebooting the Server.

### Hints

- When the [Video Switch Mode] of a CPN meeting is set to [Audio], the person speaking is displayed in the No.1 video window. When a user is selected with the [Selected User] setting to be displayed in the No.1 video window, speakers other than the selected user will be displayed in the No.2 video window. An orange frame appears around the speaker. However, the speaker’s position doesn’t change when the equally divided layout (CP2, CP4, CP12, CP16) is used and the number of participants is less than the layout number displayed. In such cases, the speaker is indicated only by the orange frame.
- For CPN Meetings, there is a terminal name display function that shows participants’ names in the video window.  
In the event Member(s)’ name is written only in alphanumeric characters, it is displayed in [First Name], [Last Name] order. If the name is written in Japanese (2-byte characters), it is displayed in [Last Name], [First Name] order. Middle names are not displayed.

For more information about multiple video screens, refer to “Multiple Video Screen Layout” (p. 54).

## Multiple Video Screen Layout

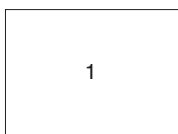
This section explains the CPN multiple video screen layout.

The number on the left of the figure shows the number of connected Endpoints.

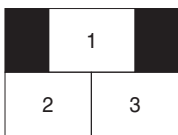
Layouts without a number on the left are a fixed display and are not affected by Endpoint numbers.

### Normal Standard Quality (CIF or 4CIF)

Layout 1



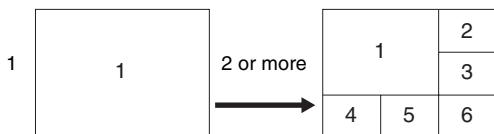
Layout 3

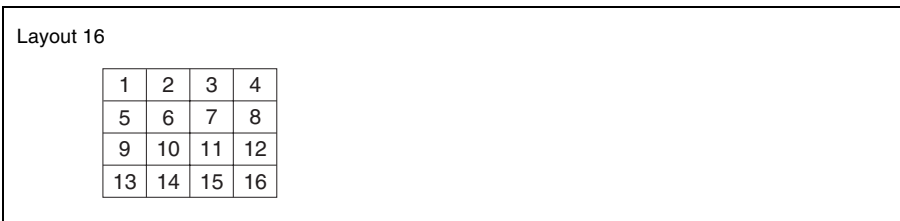
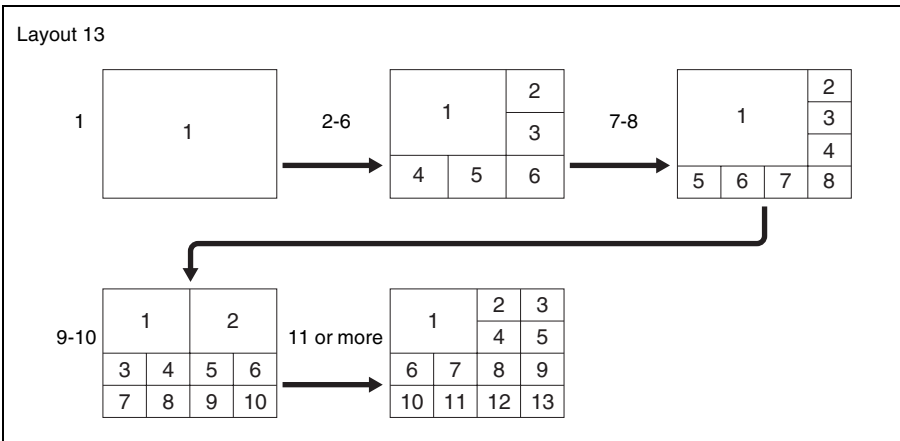
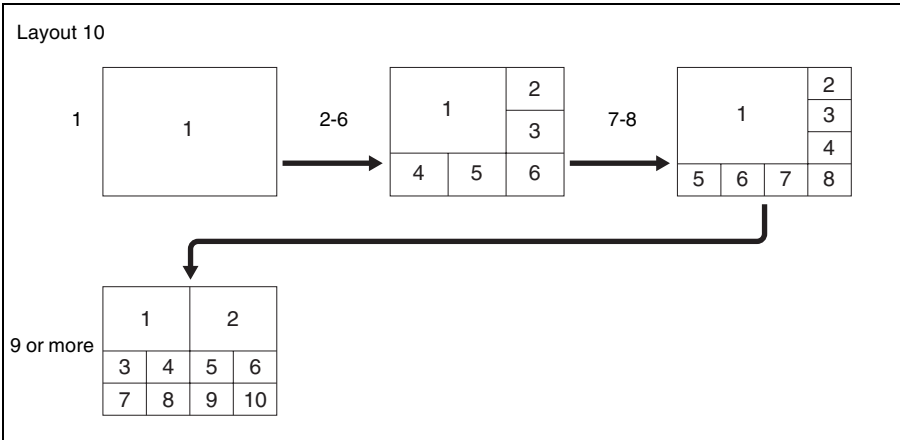
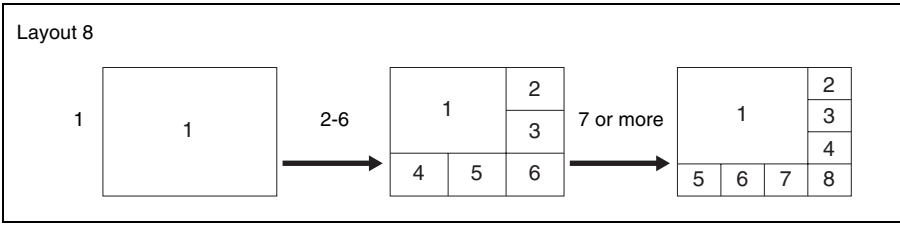


Layout 4



Layout 6



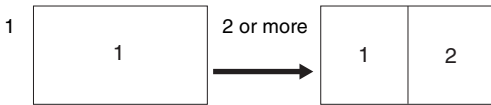


# HD Quality (W432P or HD 720p)

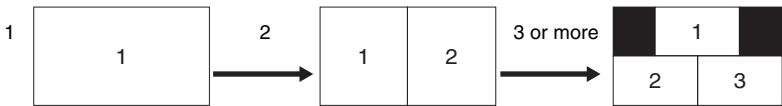
Layout 1



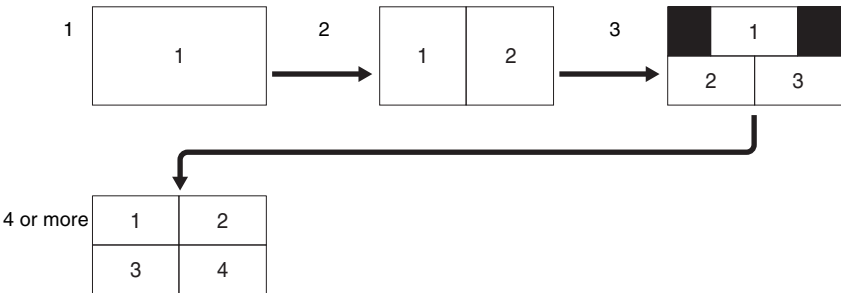
Layout 2



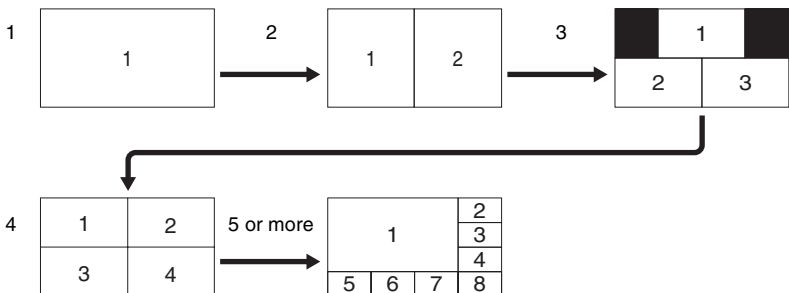
Layout 3



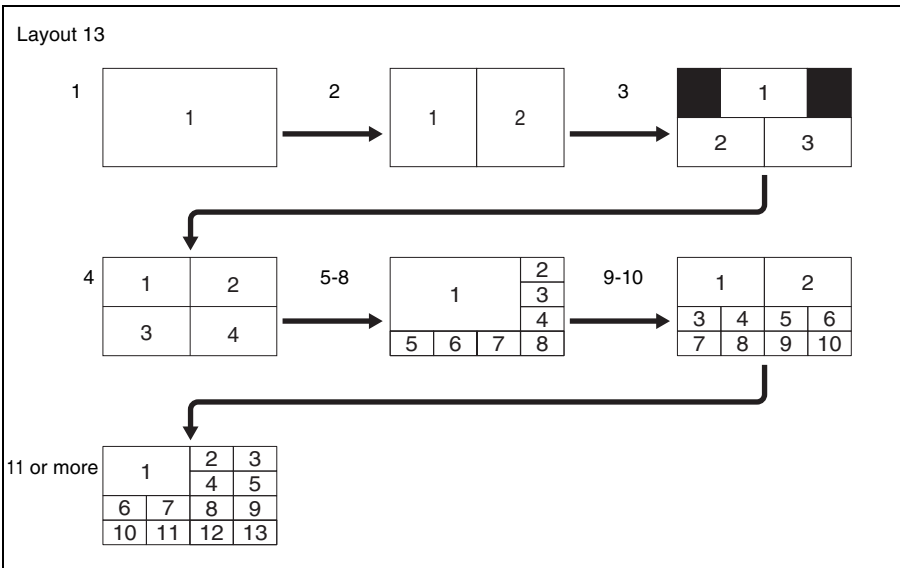
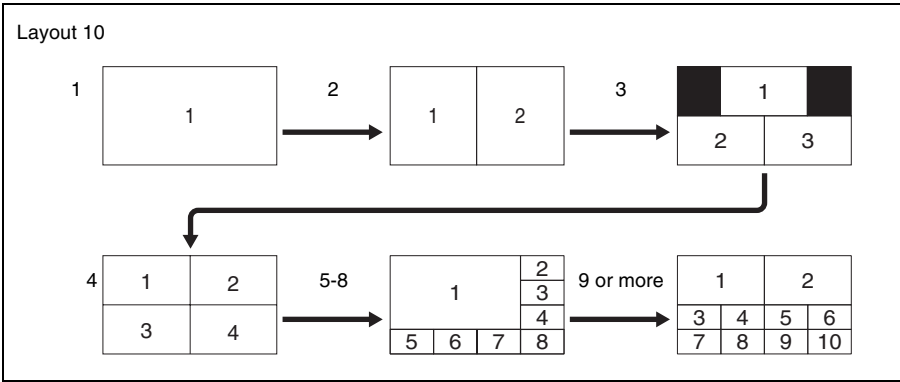
Layout 4



Layout 8







## Upstream Resolution from Endpoints

Upstream resolution from endpoints is automatically determined so that the image covers the largest pane in the specified multiple screen layout, without having to expand the image.

# Chapter 6: Using the Reservation System

---

## About the Reservation System

This function, which enables general Users to make Meeting reservations, is included with the HD VISUAL COMMUNICATION SERVER. It is necessary for the administrator to configure the reservation system and prepare a reservation template in advance.

Based on the reservation template, general Users designate the conference room name, participants and usage time, and then make the meeting reservation. In addition, Users making the reservation can notify participants about the meeting reservation.

The Meeting attributes designated by the Template, such as the maximum number of participants, bandwidth usage, video codec, etc., cannot be changed by general Users.

---

# Configuring the Reservation System

Methods to configure the Reservation System will now be explained. In order for general Users to use the Meeting Reservation function, it is necessary first for administrators to configure the Reservation System, such as designating the mail server to be used for providing email notifications.

- 1** Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2** Click on [Network Config] from the [Server] menu.  
The [Network Config] screen will be displayed.
- 3** Enter information into the configuration fields, and click the [Update] button.

---

## [Network Config] Screen

Setting Category	Description
SMTP Server	Enter the IP Address of the SMTP server for sending email notifications. A SMTP Server is not included with the HD VISUAL COMMUNICATION SERVER and should be arranged separately.
SMTP Port	Specify a SMTP server port for sending email notifications.
Reservation Email Address	Enter a default e-mail address. To be used if no e-mail address is configured in the User Account of the User reserving the Meeting.
Subject	Enter a subject line for e-mail notifications. This will be displayed as the default subject line in the enter field when reserving a meeting. General users can change the e-mail subject line when reserving a Meeting.
Reservation Interval	Select the required interval to specify the duration of a reserved Meeting. The interval can be selected from: 1, 5, 10, 15, 20, 30 or 60 minutes.
Login ID	Designate authentication ID if required by your SMTP server. If left blank, this function will operate "Without Authentication".
Password	Designate a password for the authentication ID set above.
MD5 Realm	Designate MD5 Realm when your SMTP server is configured by the authentication type "DIGEST-MD5". Designate the MD5 Realm configured with your SMTP server.

---

# Creating a Reservation Template

Methods to create templates for Meeting Reservations will now be explained.

- 1** Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2** Click on [Reservation] from the [Meeting] menu.  
The [Reservation] screen will be displayed.
- 3** Click the [Add Template] button.  
The [Reservation Template] screen will be displayed.
- 4** As with a Normal Meeting, configure settings for “Basic Information”, “Audio”, “Video”, etc.

## Hints

- By checking [Mail As Schedule], an iCalendar-format file will be attached to an e-mail when sending a Meeting reservation confirmation e-mail.
- The [Access Control Filter] can be set, but there is no option to enter the Users allowed to enter the Meeting.

*For information about settings, please refer to “[Add Meeting] Screen” (p. 24).*

- 5** Click the [Save] button.  
The entered template information will be saved.

---

# Reserving a Meeting

Methods for general Users to reserve a Meeting will now be explained.

- 1** Login to VC ONLINE “http://[HD VISUAL COMMUNICATION SERVER address]:8080/” with a general user account.
- 2** Click on the [Reservation] menu.  
The [Reservation] screen will be displayed.
- 3** Select the desired template, and click the grey icon inside the date box for the date you wish to reserve the Meeting.  
The Reservation input screen will be displayed.
- 4** Set the [Meeting Name], [Start Time] and [End Time], and select the required User or Group from the Access List.  
Set other items as necessary.

*For information about Meeting Reservation settings, please refer to “[Reservation] Screen” (p. 62).*

- 5** Click the [Add] button.  
When the Meeting Reservation is complete, the e-mail confirmation configuration screen will be displayed.

## Notes

- Meetings can be reserved in advance for up to 1 year.
- Set Reservation System in advance to enable e-mail confirmation.
- If a user or group that you specified is already scheduled to participate in another meeting that coincides with the specified reservation time, a warning message appears. However, you can click the [OK] button in the warning message and still reserve the meeting.

- 6** Confirm the details of the [Subject] and [Mail Text] fields.  
Check [Mail As Schedule] if you want to attach an iCalendar-format file to an e-mail.
- 7** To send an e-mail, select the recipients from the User list, and click the [Send Mail] button. If you do not wish to send a notification e-mail, click the [Don't Send Mail] button.  
By clicking on the [Send Mail] button, a mail will be sent to the required recipients.

## Notes

- The e-mail address used is the address configured in the recipient's User Information. This e-mail address must be configured in User Information prior to configuring the Meeting in order to send mail to the selected users.

- The reserved Meeting will not appear on the [Monitor (Meeting)] Meeting list until the scheduled start time.

---

## [Reservation] Screen

---

Setting Category	Description
Meeting Name	Enter the Meeting Name. It is not possible to duplicate Meeting Names. If a duplicated Meeting Name is designated, the file name is automatically updated with a number attached to the end of the name, such as “(1)”.
Repeat Mode	Select whether to repeat a Scheduled Meeting. <ul style="list-style-type: none"> <li>• <b>NO:</b> Meeting is not repeated</li> <li>• <b>DAILY:</b> Meeting is held at the same time every day.</li> <li>• <b>WEEKLY:</b> Meeting is repeated on the same day and time every week.</li> <li>• <b>MONTHLY:</b> Meeting is repeated on the same date and time every month.</li> </ul>
Date	Displays the date the Meeting is scheduled to start.
Start Time	Sets Meeting Start Times on a daily basis. Minute intervals can be set from 1 min to 60 mins with [Reservation Interval] under [Network Config].
End Time	Sets Meeting End Times on a daily basis. Minute intervals can be set from 1 min to 60 mins with [Reservation Interval] under [Network Config]. If any days coincide between the start and end time, change “this day” to “next day”.
CPN Layout Number	Selects the video layout of a CPN meeting. Configuration options differ depending on the [Video Codec] and [Video Mode] settings. In addition, it is only possible to change to layouts with fewer video screens than the set Reservation Template.
Share Phone Book	Select whether to display in the Share Phone Book the Meeting information that is registered on the server. <b>NONE:</b> Do not display the information in the Share Phone Book. <b>H323ALIAS:</b> Display the information in the Share Phone Book using H.323 aliases for the Meeting contact information. <b>E164NUMBER:</b> Display the information in the Share Phone Book using E.164 numbers for the Meeting contact information. <b>Note</b> Information on a Meeting is displayed in the Share Phone Book only when the Meeting is available to be conducted.
Owner	The name of the logged-in User is displayed. This cannot be edited.
Template Name	The name of the reservation template being used is displayed. This cannot be edited.

---

Setting Category	Description
Meeting Type	Displays the name of the Meeting Type configured with the reservation template being used. This cannot be edited.
Access Control Filter	Displays the Access Control Filter configured with the reservation template being used. This cannot be edited.
Fixed Position User Selection	By clicking this button, the user list will be displayed. When holding CPN mode video conferences, the User to be displayed in the largest of the multiple video screens can be selected from the list.
Access List(Group)	Displays a list of Groups. Select from the list, the Group you wish to include in the Meeting.
Access List(User)	Displays a list of Users. Select from the list, the User you wish to include in the Meeting. Users can be narrowed down by entering the information (part of the User Name, H.323 Alias, etc.) of the User you wish to locate in the [Search Filter] field.
Auto Invite	<p>By checking the checkbox, users can be automatically invited to a Meeting.</p> <p>It is possible to invite participants minutes before a Meeting begins. The actual invitation is made 40 seconds after the designated time. For example, if the “before time” parameter is set to 5 minutes, Auto Invite will start calling in the participants 4 minutes and 20 seconds prior to the commencement of the meeting.</p> <p>In the event that the invited participant does not respond or is logged out, Auto Invite will retry up to 5 times at intervals 30 seconds longer than the previous interval starting from the time of the original invitation.</p> <p><b>First Retry:</b> 30 seconds after original invitation  <b>Second Retry:</b> 60 seconds after the first retry (90 seconds after original invitation)  <b>Third Retry:</b> 90 seconds after the second retry (180 seconds after original invitation)  <b>Fourth Retry:</b> 120 seconds after the third retry (300 seconds after original invitation)  <b>Fifth Retry:</b> 150 seconds after the fourth retry (450 seconds after original invitation)</p>

## Verify Personal Reservation Schedules

Users can display a list of meetings that they reserved themselves and reserved meetings that they intend to attend.

- 1** Login to VC ONLINE “http://[HD VISUAL COMMUNICATION SERVER address]:8080/” with a general user account.
- 2** Click [Personal Schedule] from the [Meeting] menu.  
The [Personal Schedule] screen appears.  
Meetings that the user is scheduled to attend are displayed in yellow.  
Checkboxes appear to the left of meetings that the user reserved themselves.

## Edit Reservation Settings

You can edit reservation settings in the [Personal Schedule] screen.

### Note

Users can only edit the settings of meetings they reserved themselves.

- 1** Login to VC ONLINE “http://[HD VISUAL COMMUNICATION SERVER address]:8080/” with a general user account.
- 2** Click [Personal Schedule] from the [Meeting] menu.  
The [Personal Schedule] screen appears.
- 3** Select the checkbox of the meeting for which you want to edit settings, and click the [Update] button at the bottom left of the screen.  
The [Reservation] screen appears.
- 4** Edit the settings for the meeting, and click the [Update] button.  
The reservation settings for the meeting are updated.

*For more information about reservation settings for meetings, refer to “[Reservation] Screen” (p. 62).*



## Delete Reservations

You can cancel reservations for meetings in the [Personal Schedule] screen.

### Note

Users can only cancel meetings they reserved themselves.

- 1** Login to VC ONLINE “http://[HD VISUAL COMMUNICATION SERVER address]:8080/” with a general user account.
- 2** Click [Personal Schedule] from the [Meeting] menu.  
The [Personal Schedule] screen appears.
- 3** Clear the checkbox of the meeting you want to cancel, and click the [Delete] button at the bottom left of the screen.
- 4** Click [OK] when the confirmation screen appears.

---

# Deleting a Completed Meeting

Methods to delete a completed Meeting will now be explained. Reserved Meeting information is not deleted automatically so delete as necessary.

## Note

VC ONLINE displays may become slower if a large volume of completed meeting information accumulates. Be sure to delete the information periodically.

- 1** Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2** Click on [Reservation] from the [Meeting] menu.  
The [Reservation] screen will be displayed. A [Delete Old Data] button will appear next to any Meetings that were completed at least two days before.
- 3** Click the [Delete Old Data] button.  
The completed Meeting information will be deleted.

# Chapter 7: Server Monitoring

## Confirming HD VISUAL COMMUNICATION SERVER Status

The status of the HD VISUAL COMMUNICATION SERVER can be confirmed by either displaying processes or referencing log files.

### How to Display Processes

- 1 Right-click on the Server Desktop and click on [Open Terminal] from the menu.OLM
- 2 When the Terminal Software opens, execute the following command.

```
# /usr/local/vn/bin/vnstatus
```

Under normal conditions, you will see the following results displayed:

```
cnode_mcu (pid 3870) is running...
beam (pid 3785 3766) is running...
vnncs (pid 3797) is running...
vnproxy (pid 3822 3810) is running...
vnutil (pid 3823) is running...
vnlmsvr (pid 3842) is running...
vnbms (pid 3863) is running...
vnpms (pid 3885) is running...
vngk (pid 3901) is running...
vnmcu (pid 3917) is running...
vvnvc (pid 3932) is running...
vnapi (pid 3945) is running...
```

### How to Reference the Log File

- 1 Right-click on the Server Desktop and click on [Open Terminal] from the menu.
- 2 The Terminal Software will open so execute the following command.

```
cp -r /var/log/ /[Log File Save Destination]/
```

**Command Example:**

```
cp -r /var/log/ /media/disc
```

The HD VISUAL COMMUNICATION SERVER component and system log are located in /var/log/vn. Save to external media as and when necessary.

# Chapter 8: Gatekeeper

## Restricting Registrations

Configuration conditions for restricting registrations will now be explained. By default, all Endpoints are permitted to register with the Gatekeeper, however, certain Endpoints can be restricted from registering with the Gatekeeper either by IP Address or E.164 number.

### Restrict Registrations

- 1** Click on [Restriction] from the [Gatekeeper] menu.  
The [Restriction] screen will be displayed.
- 2** Click the [Add] button from either [Restriction(IP)] or [Restriction(E164)] panel.  
The [Add Restriction] screen will be displayed.
- 3** Select whether to permit the Gatekeeper registration or not.
- 4** Click the [Add] button on the [Add Restriction] panel.  
This setting is registered.

### [Add Restriction] Screen

Setting Category	Description
Restriction ID	The Restriction ID automatically allotted by the system is displayed. This cannot be edited.
Restriction Type	Displayed by [Restriction(IP)] or [Restriction(E164)]. This is decided by clicking the [Add] button of either [Restriction(IP)] or [Restriction(E164)]. Editing is not possible.
Priority	Enter registered restriction information in order of priority using alphanumeric characters. Restrictions with a lower value will be prioritized.
Permission	Select whether to permit the targeted terminal's registration with the Gatekeeper.
IP Address	This is a required field. Only displayed if the [Restriction Type] is [Restriction(IP)]. Enter the IP Address of the terminal in question.

Setting Category	Description
Netmask	This is a required field. Only displayed when the [Restriction Type] has been configured as [Restriction(IP)]. Enter the terminal's [IP Address], if restricting by IP Address.
Condition	Only displayed when the [Restriction Type] has been configured as [Restriction(E164)]. Select the conditions determining whether the terminal is to be permitted or not. <b>LESS:</b> Indicates a [Length] shorter than the entered E.164 character string length. <b>EQUAL:</b> Indicates a [Length] equal to the entered E.164 character string length. <b>GREATER:</b> Indicates a [Length] longer than the entered E.164 character string length.
Prefix	This is a required field. Only displayed when the [Restriction Type] has been configured as [Restriction(E164)]. Enter a prefix to be shared from the E.164 Number of the terminal in question.
Length	Enter the length of the E.164 character string.

## Edit Registration Restrictions

- 1** Click on [Restriction] from the [Gatekeeper] menu.  
The [Restriction] screen will be displayed.
- 2** Select the restriction information you want to edit from [Restriction (IP)] or [Restriction (E164)], and click the [Change] button.  
The [Edit Restriction] screen will be displayed.
- 3** Select whether to permit the Gatekeeper registration or not.  
*For more information about setup procedures, refer to “[Add Restriction] Screen” (p. 69).*
- 4** Click the [Add] button on the [Edit Restriction] panel.  
The edited information will override previous information and be saved.

## Delete Restriction Information

- 1** Click on [Restriction] from the [Gatekeeper] menu.  
The [Restriction] screen will be displayed.
- 2** Select the restriction information you want to delete from [Restriction (IP)] or [Restriction (E164)], and click the [Delete] button.  
The selected registration information will be deleted.

# Chapter 9: VCMP Servers

---

## About VCMP Servers

A VCMP server is a media processing server used for screen-exchange processing during meetings and screen-layout composition during CPN meetings.

By using a VCMP server in conjunction with the HD VISUAL COMMUNICATION SERVER, you can disperse the processing load for encoding and increase the number of meetings that can be conducted at one time.

*For more information on setting up a VCMP server, consult your local dealer.*



# Registering VCMP Servers

After setting up the VCMP server, register the VCMP server information in VC ONLINE.

This section describes how to register and edit the VCMP server information.

## Register VCMP Server Information

- 1 Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2 Click on [Media Processor] from the [Server] menu.  
The [Media Processor] screen will be displayed.
- 3 Click the [Add] button.  
The [Add VCMP Server] screen will be displayed.
- 4 Enter the [VCMP Server Type], [VCMP Server Display Type], [VCMP Server Hostname (FQDN)], and [Capacity], and then click [Add].  
If you set up multiple VCMP servers, be sure to register all the VCMP servers.
- 5 Restart the VCMP server.
- 6 Restart the HD VISUAL COMMUNICATION SERVER.  
The VCMP server is registered to the HD VISUAL COMMUNICATION SERVER.

### Note

Always turn on the VCMP server before the HD VISUAL COMMUNICATION SERVER.

## [Add VCMP Server] Screen

Setting Category	Description
VCMP Server ID	Depending on the system, this displays the automatically indexed ID of the VCMP server. This cannot be modified.
VCMP Server Type	Select whether the VCMP server is a master or slave.
VCMP Server Display Type	Enter the name of the VCMP server.
VCMP Server Hostname (FQDN)	Enter the hostname of the VCMP server.
Capacity	Enter the maximum number of users that can connect to the VCMP server.

Setting Category	Description
Default Master	This software does not support this function.
Alt Master	This software does not support this function.

## Edit VCMP Server Information

- 1 Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2 Click on [Media Processor] from the [Server] menu.  
The [Media Processor] screen will be displayed.
- 3 Click the [Edit] button.  
The [Edit VCMP Server] screen will be displayed.
- 4 Make the necessary changes, and click [Edit].  
*For information on setting each item, refer to “[Add VCMP Server] Screen” (p. 73).*
- 5 Restart the VCMP server.
- 6 Restart the HD VISUAL COMMUNICATION SERVER.  
The VCMP server information registered on the HD VISUAL COMMUNICATION SERVER is updated.

### Note

Always turn on the VCMP server before the HD VISUAL COMMUNICATION SERVER.

# Chapter 10: Additional Configuration

---

## ARQ (Automatic Repeat ReQuest) Function

When video or H.239 packet loss occurs during transmissions, this function automatically requests the transmitter to resend the packet. Audio packets are not supported with this function.

This is a simplified version of the Real-Time ARQ function used on the PCS series.

Configuration is not necessary to enable this function, and resend requests are performed automatically.

Depending on the operating environment, this function may not be as effective as when it is used between PCS-series units.



---

# Configuring Personal Information

Methods to configure Users' personal information will now be explained. Login to VC ONLINE, and click on [Personal] from the [User] menu. The [Personal] screen will be displayed, allowing changes to be made to the personal information of the logged in User.

---

## [Personal] Screen

Setting Category	Description
Password	Password the user originally registered.
Last Name	User's last name that is displayed in the [Member List] on the communications screen.
Middle Name	User's middle name that is displayed in the [Member List] on the communications screen.
First Name	User's first name that is displayed in the [Member List] on the communications screen.
e-mail	User's e-mail address.
IP Address	Enter if the terminal that will be used by the user has been assigned a fixed IP address.
FT Connection	Select the Firewall Traversal setting. <b>Autodetect FT:</b> Automatically determine whether Firewall Traversal is necessary when connecting to the HD VISUAL COMMUNICATION SERVER, and connect via the FT personal client only if necessary. <b>Autodetect GC:</b> Automatically determine whether Firewall Traversal is necessary when connecting to the HD VISUAL COMMUNICATION SERVER, and connect via the FT group client only if necessary. <b>Use FT:</b> Always use the FT personal client when connecting to the HD VISUAL COMMUNICATION SERVER. <b>Use GC:</b> Always use the FT group client when connecting to the HD VISUAL COMMUNICATION SERVER. <b>NONE:</b> Connect without using Firewall Traversal. <b>Note</b> FT personal clients can only be used from a PC Endpoint terminal. Therefore, [Autodetect FT] and [Use FT] cannot be used from an H.323 terminal.
FT Tunnel Type	Select the tunnel type for Firewall Traversal. Configure this only when using Firewall Traversal. <b>NONE:</b> Do not specify a tunnel type. <b>TCP:</b> Connect using a TCP tunnel. <b>UDP:</b> Connect using a UDP tunnel.
Set	Select the checkbox to enable the [Action], [Forwarding Type], and [Forwarding Destination] settings. This can be configured for each [Condition].

Setting Category	Description
Condition	Indicates the status; [Busy], [Online] (User can be called), or [Offline] (User cannot be called). The [Action], [Forwarding Type], and [Forwarding Destination] settings can be configured for each status.
Action	Select the [Confirm], [Reject] or [Forward] Action when answering calls.
Forwarding Type	Select forwarding destination type when selecting [Forward] as an [Action] <b>H.323 Alias:</b> When selecting a H.323 Alias as a forwarding destination <b>E.164 Number:</b> When selecting an E.164 Number as a forwarding destination. <b>IP Address:</b> When selecting an IP Address as a forwarding destination.
Forwarding Destination	When selecting [Forward] as an [Action], enter a forwarding destination that complies with a type specified in the [Forwarding Type].



---

# Sending an E-mail to other Users

Methods to send e-mail to other users will now be explained.

## Notes

- It is necessary to configure the reservation system prior to sending an e-mail.
  - The e-mail address used is the address configured in the recipient's User Information.
- 1** Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
  - 2** Click on [Send Mail] from the [User] menu.  
The [Send Mail] screen will be displayed.
  - 3** Enter [Subject] and [Mail Text], and select the e-mail recipient from [Group] or [User].  
Users can be narrowed down by entering the information (part of the User Name, H.323 Alias, etc.) of the User you wish to locate in the [Search Filter] field.  
When sending an e-mail to all registered users, check the [All Users] checkbox. In the event of sending an e-mail to all registered users with administrator privileges, check the [All System Administrators] checkbox.
  - 4** Click the [Send Mail] button.  
The e-mail will be sent to all selected mail recipients.

---

# Reporting

Reporting offers a function for reporting operational results. Reporting is used in conjunction with the HD VISUAL COMMUNICATION SERVER.

---

## How to Access the Reporting Function

- 1 Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2 Click [Report] at the top right of the page.

To execute a search, click the [Search] button.

---

## Displayed Search Information

Click [Search], and the following results are displayed.

- Call Statistics: Display of statistical information
- Call Records: Button for CSV file acquisition
- Displays list of search results

### Call Statistics

Displays statistical information of search results.

Category	Description
Total number of calls	Total number of listed calls
Total duration (hour:min:sec)	Total connection time
Average duration (hour:min:sec)	Average connection time
Max duration (hour:min:sec)	Maximum connection time
#Unique callers	Number of calls out
#Unique call destinations	Number of calls in

### Call Records

Download CSV Full: Gets file of all log items.

Download CSV part: Gets file of part of the log items.



## Search Results

Displays a record of information regarding previously completed call connections (call information).

Category	Description
#	Serial number of search result
Start time	Time that the call was connected
End time	Time that the call was disconnected
Call compilation code	Status code <b>CC:</b> Call Completed normally <b>CAD:</b> Abnormal call disconnected <b>UCN:</b> Unconnected due to network failure <b>UCI:</b> Unconnected due to invalid address
Call destination	H.323 Alias of receiving caller (connection destination)
Caller	H.323 Alias of originator caller (source)
Caller's IP address	IP Address of originator caller
Call duration (ms)	Connection time Calculated at units of ms (milliseconds)

Call information is recorded when a call ends.

Information for search is updated every two minutes so wait for about two minutes to conduct a fresh search.



# Sony PCS-XG/XL/XA/XC Series Firmware Update Function

The Sony PCS-XG/XL/XA/XC Series has a firmware update function. Methods to setup and use this function will now be explained.

## Setup

- 1 Right-click on the Server Desktop and click on [Open Terminal] from the menu.
- 2 The Terminal Software will then open so execute the following command.

```
# cd /usr/local/vn  
# mkdir sony
```

A directory entitled “sony” will be created under the HD VISUAL COMMUNICATION SERVER’s /usr/local/vn directory.

- 3 Copy the Sony PCS-XG/XL/XA/XC Series firmware to the sony directory.

## Firmware Update Procedure

### Notes

- When updating PCS-XG/XL/XA/XC Series firmware, execute [Update Firmware] after checking whether the terminal power is set to ON and is not currently being used.
- Do not turn the power OFF when updating PCS-XG/XL/XA/XC Series firmware under any circumstances.

- 1 Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2 Click on [Endpoint] from the [Monitor] menu.  
The [Monitor (Endpoint)] screen will be displayed.
- 3 Click [Update Firmware] at the bottom left of the screen.
- 4 Select the checkbox of the Sony PCS-XG/XL/XA/XC Series terminal you want to update.

### Note

You can only update one terminal at a time.

- 5 Select the firmware to be updated from the [Select Firmware Update File] pull-down menu, and click the [Update Firmware] button.  
The confirmation screen will be displayed.
- 6 Confirm the details of the confirmation screen, and execute [Update Firmware].

## Status Display

When the Sony PCS-XG/XL/XA/XC Series firmware update is executed, firmware update and update completion status are displayed.

Status Column	Description
Blank	Initial firmware update execution screen
Updating	The firmware update is being executed
Upload was completed normally	Confirms completion of update. However, it is displayed when the firmware file has been forwarded.
Status Error! Communicating	An error displayed when update is executed while Sony PCS-XG/XL/XA/XC Series is busy.
java.net.Connect Exception: Connection refused	Error when connection could not be completed. It is displayed for errors arising from executions routed through PCS-FT.

# Linking to the HD RECORDING SERVER

You can record meeting using the HD RECORDING SERVER. By configuring the following settings and specifying an HD RECORDING SERVER while making a reservation for a meeting, you can have recording start automatically when the meeting starts.

*For more information on HD RECORDING SERVER operations and functions, refer to the operating instructions for the HD RECORDING SERVER.*

## Configure the HD RECORDING SERVER Link

- 1 Login to VC ONLINE ([http://\[HD VISUAL COMMUNICATION SERVER address\]:8080/](http://[HD VISUAL COMMUNICATION SERVER address]:8080/)) using an account with administrator privileges.
- 2 Click on [Recording Servers] from the [Server] menu.  
The [Recording Servers] screen appears.
- 3 Click the [Add] button.  
The [Add Recording Server] screen appears.
- 4 Configure each setting.  
*For information on setting each item, refer to “[Add Recording Server] Screen” (p. 83).*
- 5 Click the [Add] button when you are finished configuring the settings.  
A confirmation dialog box appears.
- 6 Click [OK].  
The recording server is registered with the configured settings.

### Note

The HD VISUAL COMMUNICATION SERVER must be restarted after the settings are configured.

## [Add Recording Server] Screen

Category	Description
Recording Server ID	Number used to identify the recording server. This is automatically assigned by the system during registration. This cannot be manually specified or modified.
Recording Server Name	Required field. Specify the name of the recording server.

<b>Category</b>	<b>Description</b>
Address	Required field. Specify the IP address of the recording server.
H.323 Alias	Required field. Specify the H.323 alias of the recording server. Specify the first H.323 alias in the list of H.323 aliases (clotho.rs.h323.aliases) registered in the HD RECORDING SERVER settings (vnrs.conf).
E.164 Number	Specify the E.164 number of the recording server. Specify the first E.164 number in the list of E.164 numbers (clotho.rs.e164.numbers) registered in the HD RECORDING SERVER settings (vnrs.conf).
Capacity	Maximum connection capacity of the HD RECORDING SERVER. The default setting is 5.

---

## List of Terms

Terms used in this Document and the HD VISUAL COMMUNICATION SERVER document will now be explained.

---

### HD VISUAL COMMUNICATION SERVER

#### HD VISUAL COMMUNICATION ONLINE

A portal site provided by the HD VISUAL COMMUNICATION SERVER. A website that enables easy login to the HD VISUAL COMMUNICATION SERVER and its online help function can be displayed from this site.

#### HD VISUAL COMMUNICATION SERVER

This is a server that enables video conferences between remote locations. Its components include Gatekeeper, H.323MCU and Web Service.

#### PC Endpoint

PC Endpoint is H.323 client software to be installed on a computer. This software operates on Windows.

---

### User

#### Chairman

Moderated meetings may be assigned a Chairman to control the meeting. The Chairman controls audio and video selection as well as data functions during a Moderated Meeting. The Chairman is also able to manage requests to speak from the participants.

#### General User

Users who receive audio and visual content during Moderated Meetings. They can seek permission from the Chairman to speak during a Moderated Meeting.

#### System Administrator

A User that can perform HD VISUAL COMMUNICATION SERVER system administration.

An Administrator account is created by default when the HD VISUAL COMMUNICATION SERVER system is installed.

Users can register to have administrator privileges as and when necessary.

#### User

A User refers to all HD VISUAL COMMUNICATION SERVER users.

### **Meetings**

Meetings provide a virtual space to conduct audio, video and data communication. They can be likened to virtual conference system “Conference Rooms”.

Meetings can be created, edited and deleted by System Administrators.

As well as being a style of communication, Meetings can be categorized by the 2 methods by which they control audio and video distribution.

- Normal
- Presentation

### **Moderated Meetings**

A meeting with an assigned Chairman. The Chairman controls video and audio distribution

### **Presenting**

This mode is a Moderated Meeting during which the Chairman can give a one-way presentation to other participants. In this mode, General Users may request permission to speak, however, they cannot speak until permission has been granted by the Chairman.

### **Open Forum**

Status of a Moderated Meeting in which a General User has been granted permission to address all Meeting participants by the Chairman. Under this status, the General User for whom permission to speak has been granted can speak to all Meeting participants in a fashion similar to the Meeting Chairman.

The Chairman can continue the Meeting in this status, or switch to any other desired mode.

General Users may request permission to speak, however, they will not be able to speak until permission has been granted by the Chairman.

### **Side Meeting**

Status of a Moderated Meeting in which a General User has been granted permission to speak to the Chairman. It reverts to this Mode as soon as the permission is granted. Under this status, only the general User and the Chairman may converse with each other. The audio for other general Users will be disabled. The Chairman can continue the Meeting in this status, or switch to any other desired mode.

General Users may request permission to speak; however, they will not be able to speak until permission has been granted by the Chairman.

### **Lecture**

This mode is a Moderated Meeting in which the Chairman and the General Users receive images in different screen layouts.

This mode has two states: one in which only the Chairman can be heard, and one in which the Chairman and a General User that the Chairman grants permission to speak can be heard.

General Users can request permission to speak, but cannot be heard until permission is granted.

In the state where only the Chairman can be heard, each General User appears on the Chairman's screen, while only the Chairman appears on the General User screens.

In a state where a General User has been granted permission to speak, each General User appears on the Chairman's screen with priority on the speaker, while only the Chairman and the speaker appear on the General User screens.

### **Presentation Meeting**

Audio and video are controlled by Users.

This type of meeting includes Moderated Meetings.

### **Normal Meeting**

All Meeting participants have the same right to speak in a Meeting. HD VISUAL COMMUNICATION SERVER controls all audio and video broadcasts according to the attributes configured for the Meeting.

### **CPN**

A multiple video screen function (Continuous Presence) that allows video streams from meeting participants to be mixed and transmitted to all participants. A maximum of 16 video streams can be mixed at once.

---

## **Standards**

### **E.164**

An ITU-T (International Telecommunication Union) E series recommendation, representing a numbering plan for international electronic communications. An E.164 number uniquely identifies a public network termination point and typically consists of three fields, CC (country code), NDC (national destination code), and SN (subscriber number), up to 15 digits in total. This can be thought of as a Service number.

### **H.323**

An ITU-T "umbrella" of standards for Packet-based multimedia communications systems. This standard defines the different multimedia entities that make up a multimedia system - Endpoints, Gateways, Multipoint Conferencing Units (MCUs), and Gatekeepers -- and their interaction over an IP-based network.

### **H.323 Alias**

An identifier (name) for a terminal, User or Meeting using H.323 protocol. When conducting video conferencing using H.323 protocol, values identifying terminals, users or Meetings are assigned. However, these values are extremely difficult for humans to remember so a separate name (alias) represented by a character string is also assigned. This can be thought of as a Service number.

### **ITU-T (International Telecommunication Union Telecommunication Standardization Sector)**

A sub-organization of the International Telecommunication Union (ITU), serving as the standardization sector for electronic communications. It is the development body for international standards related to telecommunications.

**H.239**

H.239 is an ITU-T recommendation from the H.32x Multimedia Communications' macrofamily of standards for multimedia communications over various networks. It enables data, such as computer or video presentation materials to be transmitted together with a video conference session.

---

**Other****Smtp Server**

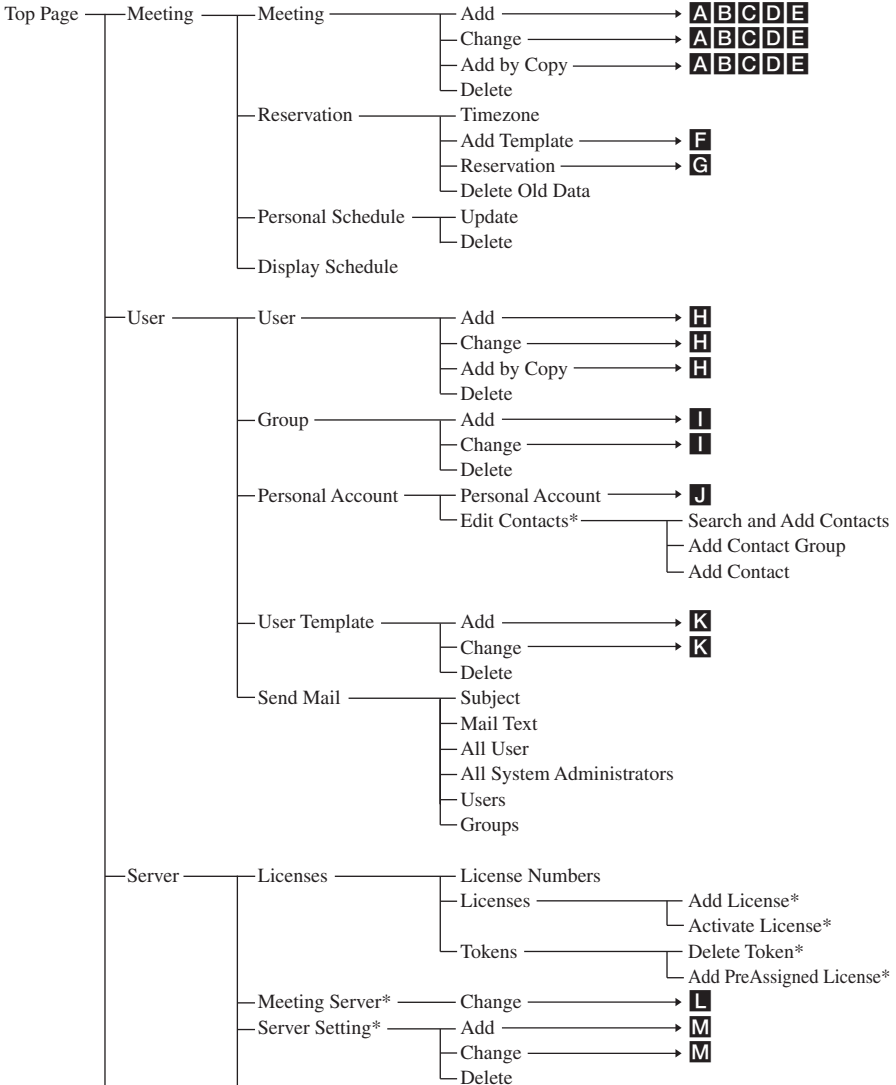
Server used to send e-mail.



# Menu Components

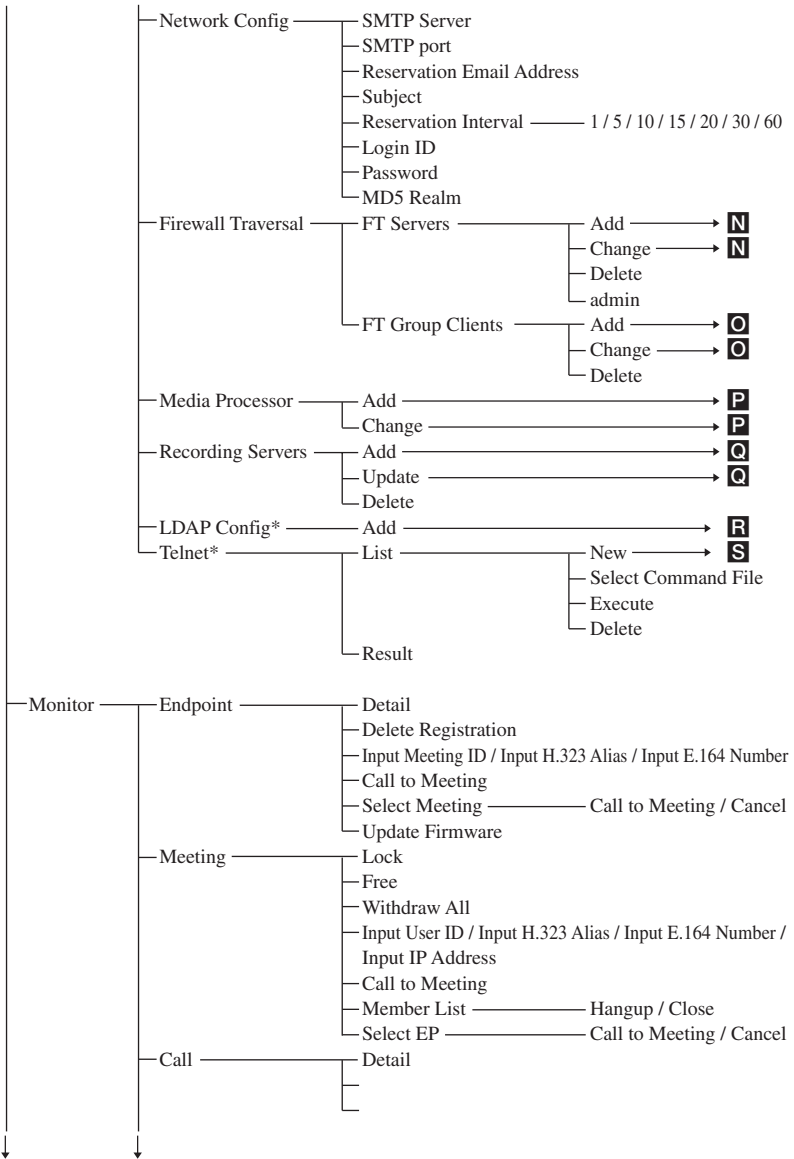
This software is composed of the following menus.

\* These Menus, Setting Categories and Selection Options are not supported by this software.

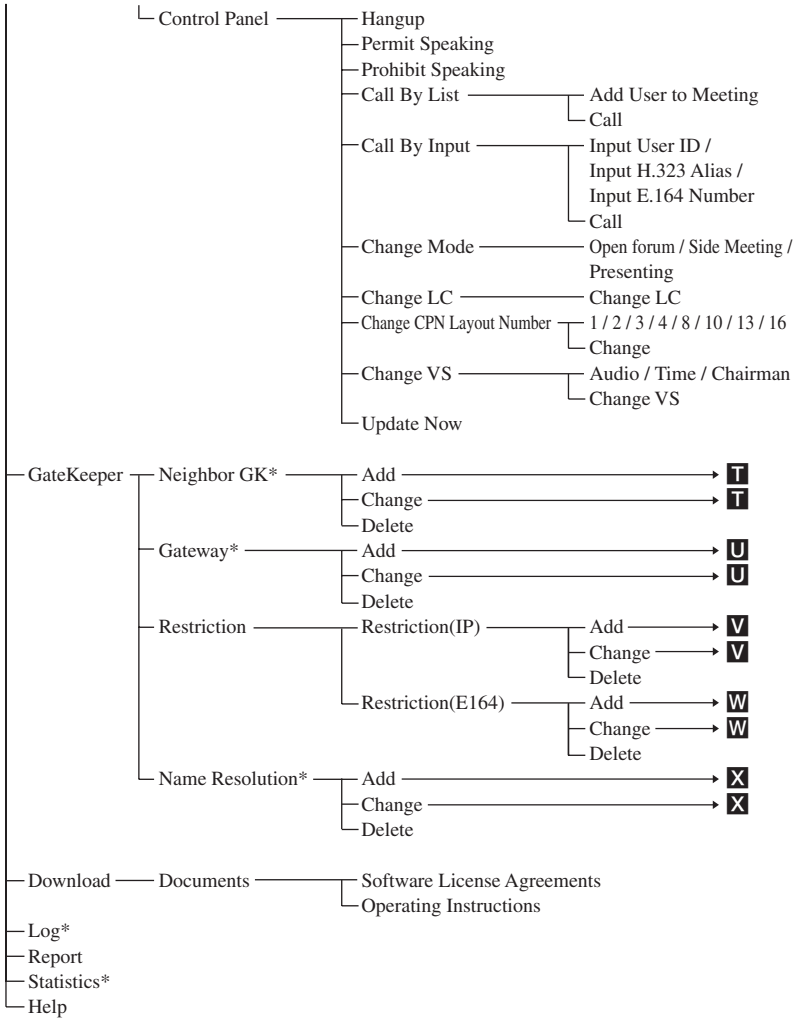


Appendix

The following page      The following page



The following page    The following page

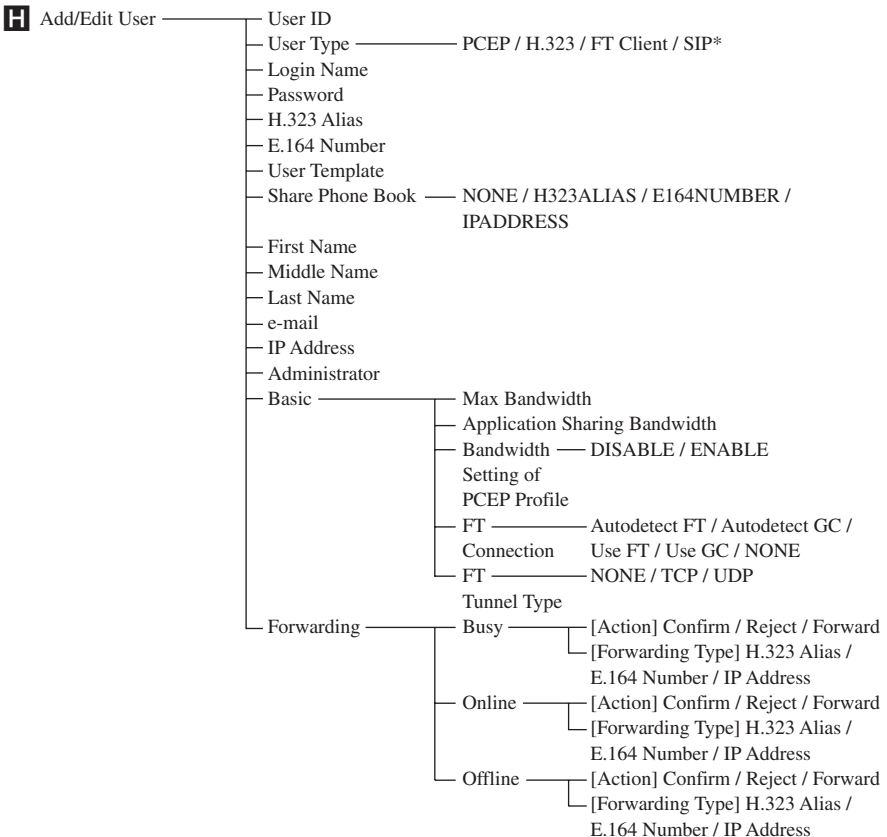
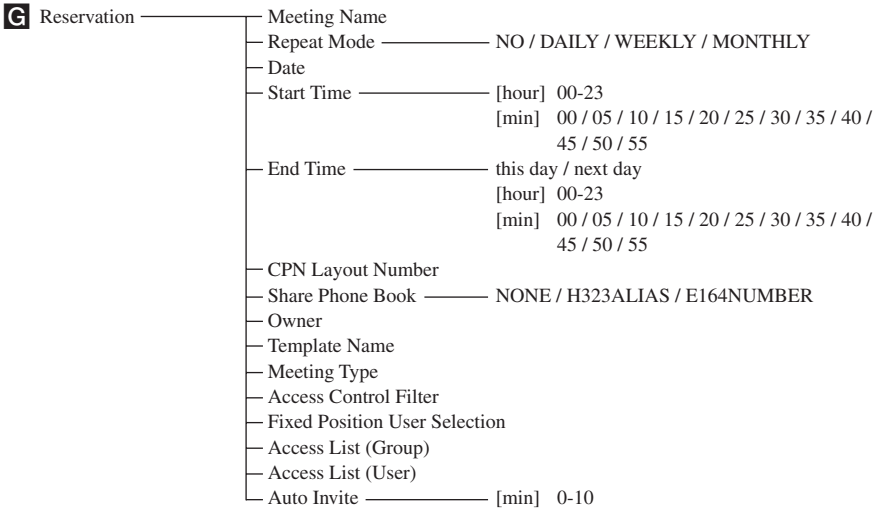


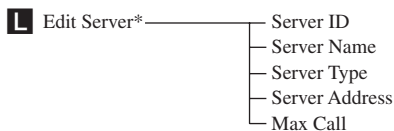
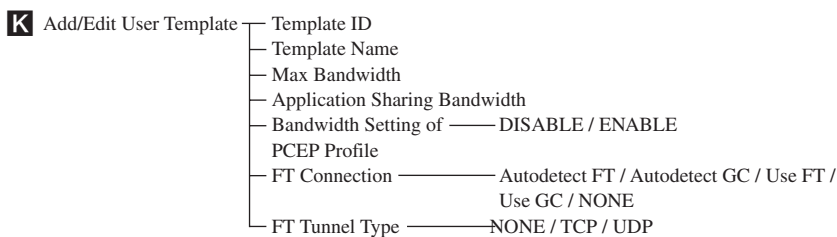
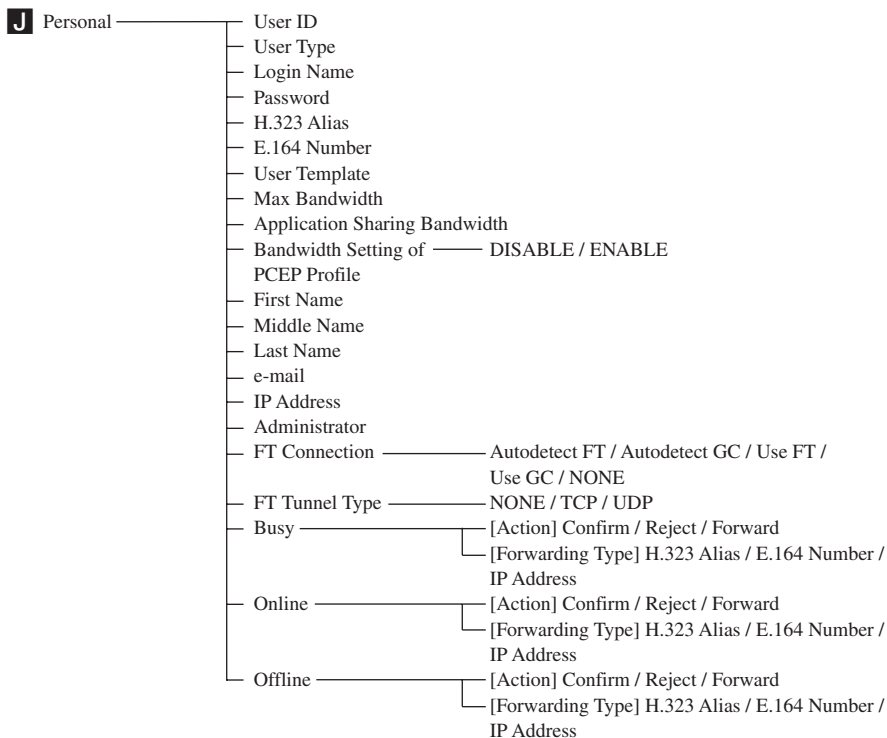
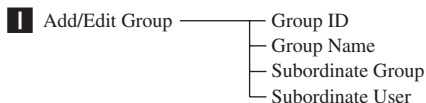
<b>A</b> Add/Edit Meeting Basic	Meeting ID	
	Meeting Name	
	H.323 Alias	
	E.164 Number	
	Max Members	
	Meeting Type	Normal / Loopback / Moderated
	Meeting Mode	Open Forum / Side Meeting / Presenting / Lecture
	Operator Mode	Disable / MIC OFF / MIC ON
	Bandwidth Control	STATIC / DYNAMIC
	Max Bandwidth(conf)	
	Max Bandwidth(ep)	
	Audio Codec	G.711 u-law / G.711 A-law / G.722 / MPEG4-AAC-LC / Auto
	Video	Enable / Disable
	CPN	ON / OFF
	Video Codec	H.261 / H.263 / H.263+ / H.264 / H.264 High Profile / H.264 Auto
	Resolution	CIF / 4CIF / W432P / HD 720p / HD 1080p
	Video Switch Mode	Audio / Time / Chairman
	CPN Layout Number	1 / 2 / 3 / 4 / 6 / 8 / 10 / 13 / 16
	H.239	ON / OFF
	H.239 Bandwidth	
	H.239 Codec	H.263+ / H.264
	H.239 Resolution	XGA / HD 720p / HD 1080p
	Application Sharing	ON / OFF
	Application Sharing Bandwidth	

<b>B</b> Add/Edit Meeting Detail	Activate	ALWAYS / CLOSED / SCHEDULED
	Repeat Mode	NO / DAILY / WEEKLY / MONTHLY
	Date	
	Start Time	[hour] 00-23 [min] 00 / 05 / 10 / 15 / 20 / 25 / 30 / 35 / 40 / 45 / 50 / 55
	End Time	this day / next day [hour] 00-23 [min] 00 / 05 / 10 / 15 / 20 / 25 / 30 / 35 / 40 / 45 / 50 / 55
	ISC	ON / OFF
	Time	
	Change	
	Far End Camera Control	ON / OFF
	Share Phone Book	NONE / H323ALIAS / E164NUMBER
	Encryption	NONE / ENCRYPTION / CONNECTIVITY
	Template Mode	
	Template ID	
	Audio Latency	2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10
	Audio Gain Control	ON / OFF
	W432P	ON / OFF
	CIF1	ON / OFF
	CIF2	ON / OFF

<b>C</b> Add/Edit Meeting Access	Access Control Filter	NONE / IPADDRESS / H323ALIAS / H323ALIAS_IP / SERVRCALL
	Access List(Group)	
	Access List(User)	

- D** Add/Edit Meeting — Chairman  
Presenter
- E** Add/Edit Meeting — VCMP Server  
VCMP — Fixed Position User
- F** Reservation Template —
  - Meeting ID
  - Meeting Name
  - Max Members
  - Meeting Type — Normal / Loopback / Moderated
  - Meeting Mode — Open Forum / Side Meeting / Presenting / Lecture
  - Operator Mode — NONE / MIC OFF / MIC ON
  - Bandwidth Control — STATIC / DYNAMIC
  - Max Bandwidth(conf)
  - Max Bandwidth(ep)
  - ISC — ON / OFF
  - Time
  - Change
  - Access Control Filter — NONE / IPADDRESS / H323ALIAS /  
H323ALIAS\_IP / SERVERCALL
  - Share Phone Book — NONE / H323ALIAS / E164NUMBER
  - Encryption — NONE / ENCRYPTION / CONNECTIVITY
  - Mail As Schedule
  - Auto Invite — [min] 0-10
  - Audio Codec — G.711 u-law / G.711 A-law / G.722 /  
MPEG4-AAC-LC / Auto
  - Audio Latency — 2 / 3 / 4 / 5 / 6 / 7 / 8 / 9 / 10
  - Audio Gain Control — ON / OFF
  - Video — Enable / Disable
  - CPN — ON / OFF
  - Video Codec — H.261 / H.263 / H.263+ / H.264 /  
H.264 High Profile / H.264 Auto
  - Resolution — CIF / 4CIF / W432P / HD 720p / HD 1080p
  - Video Switch Mode — Audio / Time / Chairman
  - CPN Layout Number — 1 / 2 / 3 / 4 / 6 / 8 / 10 / 13 / 16
  - VCMP Server — localhost
  - W432P — ON / OFF
  - CIF1 — ON / OFF
  - CIF2 — ON / OFF
  - H.239 — ON / OFF
  - H.239 Bandwidth
  - H.239 Codec — H.263+ / H.264
  - H.239 Resolution — XGA / HD 720p / HD 1080p
  - Application Sharing — ON / OFF
  - Application Sharing Bandwidth





**M** Add/Edit Server Setting\* — Key  
— Value  
— Enable  
— Name(English)  
— Description(English)  
— Name(Japanese)  
— Description(Japanese)

**N** Add/Edit FT Server — FT Server ID  
— FT Server Name  
— Display Name  
— IP Address  
— Port  
— Admin Web Port

**O** Add/Edit FT Group Client — FT Group Client ID  
— FT Group Client Name  
— Display Name  
— IP Address  
— FT Server1  
— FT Server2

**P** Add/Edit VCMP Server — VCMP Server ID  
— VCMP Server Type  
— VCMP Server Display Type  
— VCMP Server Hostname(FQDN)  
— Capacity  
— Default Master  
— Alt Master

**Q** Add/Edit Recording Servers — Recording Server ID  
— Recording Server Name  
— Address  
— H.323 Alias  
— E.164 Number  
— Capacity

**R** Add LDAP Config\* — LDAP ID  
— LDAP Server Address  
— Server Type — OpenLDAP / Active Directory / Others  
— Port  
— Root DN  
— Password  
— suffix  
— filter  
— User Template  
— Login Name  
— H.323 Alias  
— E.164 Number  
— IP Address  
— First Name  
— Middle Name  
— Last Name  
— e-mail



**S** Add Command File\* — File Name  
— Command

**T** Add/Edit Neighbor GK\* — Neighbor Gate Keeper ID  
— IP Address  
— Port  
— Prefix  
— Priority  
— Gate Keeper ID

**U** Add/Edit Gateway\* — Gateway ID  
— Gateway Name  
— H.323 Alias  
— E.164 Number  
— IP Address  
— Max Call  
— Prefix — Add — Prefix  
— Rewrite  
— Priority  
— Length  
— Edit — Prefix  
— Rewrite  
— Priority  
— Length  
— Forwarding — Busy — [Action] Confirm / Reject / Forward  
— [Forwarding Type] H.323 Alias /  
E.164 Number / IP Address  
— Online — [Action] Confirm / Reject / Forward  
— [Forwarding Type] H.323 Alias /  
E.164 Number / IP Address  
— Offline — [Action] Confirm / Reject / Forward  
— [Forwarding Type] H.323 Alias /  
E.164 Number / IP Address

**V** Add/Edit Restriction(IP) — Restriction ID  
— Restriction Type  
— Priority  
— Permission — permit / not permit  
— IP Address  
— Netmask

**W** Add/Edit Restriction  
(E.164) — Restriction ID  
— Restriction Type  
— Priority  
— Permission — permit / not permit  
— Condition — LESS / EQUAL / GREATER  
— Prefix  
— Length

**X** Add/Edit Name Resolution\* — Name Resolution ID  
— Display Name  
— File Name  
— Priority  
— enable

