



AP-MC1000™

Video MCU

High-performance Video MCU Solution

New Enhanced MCU Features



AddPac

AddPac Technology

2006, Sales and Marketing

www.addpac.com

Contents

- Video Display Layout
- Video Conference Signaling
- MCU Management (SMM)
- OSD (Video Phone, Video Terminal, etc)
- Conference Service Diagram : Example



Video Display Layout

- **Various Layout**
 - 21 types (Symmetric Layout, Asymmetric Layout)
 - Symmetric Layout : same participant picture size
 - Asymmetric Layout : asymmetric participant picture size
 - Auto, Manually : can choice a specific video layout when a conference is started
- **Dynamic control**
 - Dynamic layout change
 - Dynamic participant movement
- **Floor**
 - Can distinguish a participant by using the concept of the right of a speaking participant
 - Floor to full screen
- **Name display**
 - Display or hide the name of a participant dynamically
- **Border**
 - Three kind of a participant picture border : empty border, a participant boarder, a speaker boarder

Video Conference Signaling

- Dial-in
 - Even in Dial-out started Video Conference, a participant can join the Video Conference if a participant knows the conference room number in outside.
- Mic off of invisible participant
 - Can turn off MIC of a invisible participant.
- Forced Mute (audio, video)
 - Can mute Audio/Video Capability of a participant via SMM or in Chair, Operator Terminal (Video Phone).
- Virtual Audience
 - Broadcasting solution
 - Can monitor the video conference via inter-working with AddPac Broadcasting Server.

MCU Management (SMM)

Smart Multimedia Management

- Initial Setting
 - Video Layout Setting
 - User class
 - Chair, Operator, Participant, Audience
 - Initial position
- Active Monitoring
 - Monitoring
 - Snapshot
 - Control
 - Layout
 - Move party
 - Floor
 - Mute

Conference Room

The screenshot shows the 'Add Conference' dialog box with the following fields and callouts:

- Conference Name & Description**: Callout pointing to the 'Conference Name' and 'Description' text boxes.
- Conference Number**: Callout pointing to the 'Conference Number' text box.
- Conference Type**: Callout pointing to the 'Conference Type' dropdown menu, with text: ': Dial-out, Meet me, AddHoc'.
- Media Type**: Callout pointing to the 'Media Type' radio buttons, with text: 'Select Conference Media Type'.
- Audio Codec**: Callout pointing to the 'Audio Codec' dropdown menu, with text: 'Select a conference audio codec'.
- Maximum Participant**: Callout pointing to the 'Max Participant' spinner box, with text: '(Can select in Meet-Me conference type only)'. Note: The callout text in the image is 'Maximum Participant' but the description is 'Maximum Participant'.
- Close on Chair Out**: Callout pointing to the 'Close on Chair Out' checkbox, with text: 'Conference Disconnected if chair hang up phone'.
- Secret Room**: Callout pointing to the 'Secret Room' checkbox and 'Room Password' field, with text: '-Secret room and Room Password - (Can select in Meet-Me conference type only)'. Note: The callout text in the image is 'Secret Room' but the description is 'Secret Room'.
- Video Endpoint**: Callout pointing to the 'Video Endpoint' tab, with text: 'In case of Video Media type, select the video parameter of endpoint.'.
- Video Support**: Callout pointing to the 'Video Support' section, with text: 'In case of Video Media Type, select the video information'.

The 'Video' section includes the following fields:

- Video Type: Continuous presence
- Target Rate: 1024K
- Picture Size: 640x480
- Video Codec: MPEG4
- Frame Rate: 30 fps

Conference - Layout

The screenshot shows the 'Add Conference' dialog box with the 'General' tab selected. The dialog is divided into several sections: 'General', 'Participants', and 'Virtual Audience'. The 'General' section includes fields for 'Conference Name', 'Description', 'Conference Number', 'Conference Type', 'Partition', 'Media Type' (Audio or Video + Audio), 'Audio Codec', 'Max Participant', 'Close on Chair' (checked), and 'Secret Room' (unchecked). The 'Participants' section includes a 'Room Password' field (4 digit). The 'Virtual Audience' section is expanded, showing 'Video' settings: 'Support' (EndPoint, Layout), 'Layout Mode' (Manual), 'Arrange Mode' (Dynamic), 'Video Layout' (3), 'Floor Assign Mode' (After Release, On Request), 'Color' (Border Line, Floor Line, Background Line, Background), and 'Mic Off of Invisible Participant' (unchecked). Several callout boxes provide additional information: 'Video Layout Mode' (Auto (symmetric, asymmetric), manual), 'Arrange Mode' (dynamic, fixed, fixed reserved), 'Video Layout' (Select the video layout), 'Floor Assign Mode' (Floor 권한 할당에 대한 방법 설정. (After Release, On Request)), 'Floor to Full Screen' (Floor to Full Screen Enable/Disable in symmetric, asymmetric Layout Mode), 'Display Participant Name' (Participant Name Display Enable/Disable and Location of Name Display), 'Color' (Layout border and Floor, Background Color Setting), and 'Mic off of Invisible Participant'.

Conference - Participants

Conference Properties

General | **Participants** | Virtual Audience

Phone Number	Par...	User
1002		hwang woo sun
1003		sim sang kwon
1004		lee young sik
1005		oh hyoung suk
1006		lee myoung won
1007		choi jin suk
1008		lee min ji
1010		kwon jong hwi
1012		kim sang mi
1013		you jae won
1015		jang byoung ju
1018		kim kyoung nam
1019		kim chang yeon
1020		kwon young pil
1021		kim do hyoung
1024		kim kwang
1026		lee joung hyuk
1027		kim so young
1101		choi woo suk
1102		sin kwang woong
1500		choi jin suk
3003		
		kim kyoung nam
		kim so young
4002		
4003		

Enter External Phone Number

Add

Conference Participants							
Number	Partition	User	Type	User Class	Media Type	Position	Display Name
3001		Steven	Internal	Chair	Video		
3004		John	Internal	Participant	Video		
3005		Jane	Internal	Participant	Video		
3010		Sally	Internal	Participant	Video		

Ok Cancel

Phone Number
Participant Phone List

External Phone Number
Register the external phone line number by inputting number directly

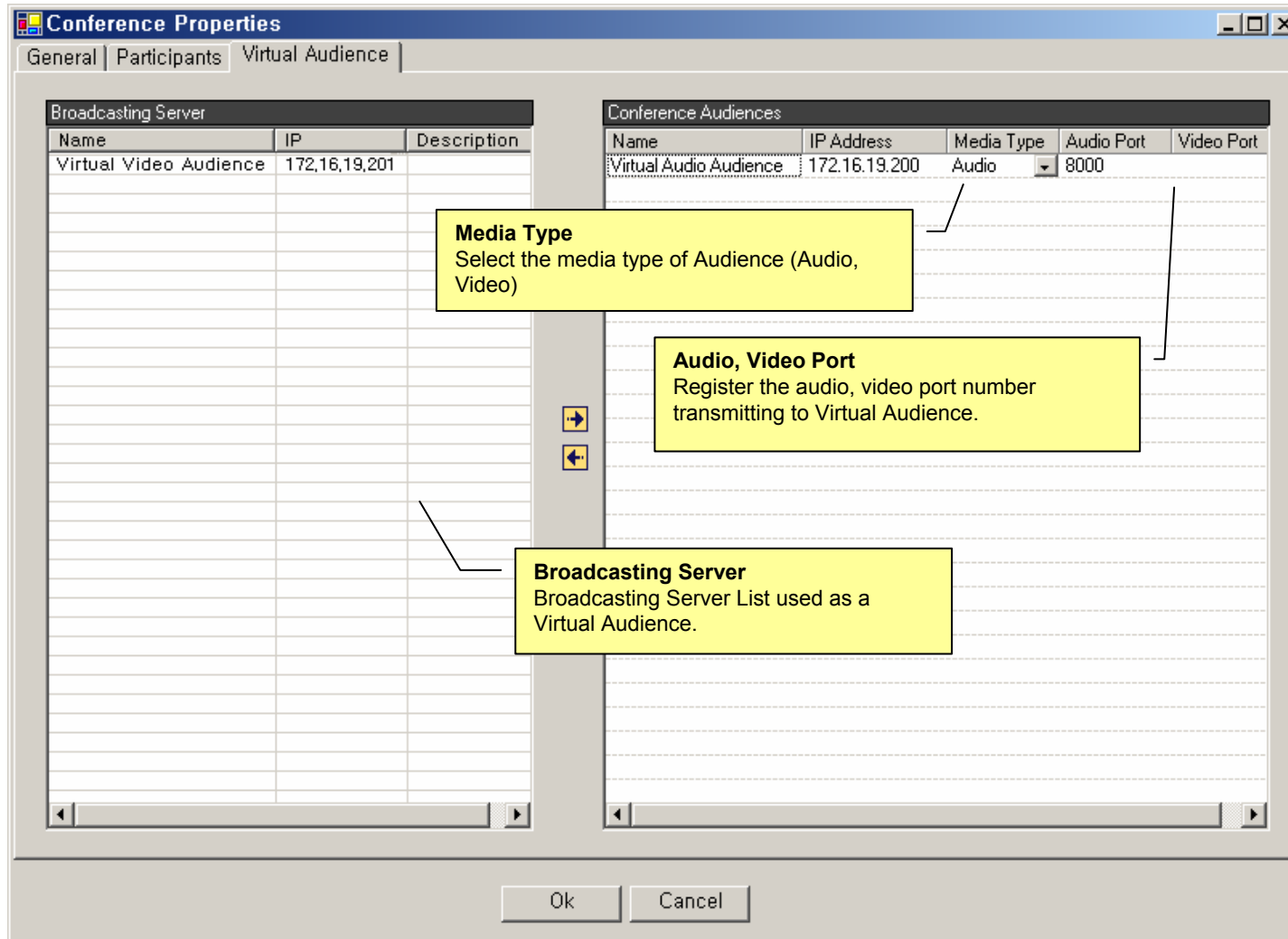
User Class
(Chair, Operator, Participant, Audience)

Media Type
(Audio, Audio (Seat Reserved), Video)

Position
In case of video media type, Select the location of a participant in video layout

Display Name
A Participant Display Name

Conference – Virtual Audience



Active Conference (1)

Smart Multimedia Manager - [Active Conferences]

File View Tools Window Help

AddPac Smart Multimedia Manager
AddPac Technology

172.16.201.100 172.16.11.120

Conference

Conference Name	Conference Number	Status	Conference Type	Start Time	Duration (s...)	Media Type	Floor to Full...	Layout Mode	Arrange Mode	Layout	No. of Pa...
nms conference	7100	Running	Dial-Out	20061207-14:33:45	82	Video	On	Manual	Dynamic		3

Participants (nms conference)

Participant Name	Phone Number	IP	Status	Audio	Video	Floor	In Picture	Reason
choi jin suk(js.choi)	1500	172.16.19.103	Connected					
kim kyoung nam(kn...)	3500	172.16.12.30	Connected					
lee joungh hyuk(jh.lee)	6010	172.16.11.110	Connected					

172.16.201.100 (Ok) 172.16.11.120 (Ok)

2006-12-07 오후 2:35:08 Version 2.9.2532.21338 172.16.201.100:389 administrator

Conference
Display the current conference room list

Participants
Display the participant list in conference room each

Active Conference (2)

Smart Multimedia Manager - [Active Conferences]

File View Tools Window Help

Advanced Smart Multimedia Manager

AddPac

Conference Manager
AddPac Technology

172.16.201.100 172.16.11.120

Conference
Conference parameter setting is possible dynamically in current conference call

Conference Name	Conference Number	Status	Conference Type	Start Time	Duration (s..)	Media Type	Floor to Full..	Layout Mode	Arrange Mode	Layout	No. of Pa..
nms conference	7100	Running	Dial-Out	20061207-14:33:45	173	Video	On	Manual	Dynamic		3

Participants (nms conference)

Participant Name	Phone Number	IP	Status	Audio	Video	Floor	In Picture	Reason
choi jin suk(js.choi)	1500	172.16.19.103	Connected					
kim kyoung nam(kn...)	3500	172.16.12.30	Connected					
lee joungh hyuk(jh.lee)	6010	172.16.11.110	Connected					

172.16.201.100 (Ok) 172.16.11.120 (Ok)

2006-12-07 오후 2:36:34 Version 2.9.2532.21338 172.16.201.100:389 administrator

Active Conference (3)

The screenshot displays the 'Smart Multimedia Manager' interface. At the top, there is a menu bar (File, View, Tools, Window, Help) and a toolbar with various icons. The main area shows a 'Conference' table with the following data:

Conference Name	Conference Number	Status	Conference Type	Start Time	Duration (s..	Media Type	Floor to Full..	Layout Mode	Arrange Mode	Layout	No. of Pa..
nms conference	7100	Running	Dial-Out	20061207-14:33:45	318	Video	On	Manual	Dynamic	[Layout Icon]	3

Below the table, there are two main windows:

- Conference Snapshot:** A window showing a grid of video thumbnails. It includes an 'Auto Refresh' checkbox, a 'Refresh' button, and a 'Refresh Interval' set to 5 seconds.
- Participants (nms conference):** A table listing active participants with their parameters:

Participant Name	Phone Number	IP	Status	Audio	Video	Floor	In Picture	Reason
choi jin suk(js.choi)	1500	172.16.19.103	Connected	[Icon]	[Icon]	[Icon]	[Icon]	
kim kyoung nam(kn...)	3500	172.16.12.30	Connected	[Icon]	[Icon]	[Icon]	[Icon]	
lee jounghyuk(jh.lee)	6010	172.16.11.110	Connected	[Icon]	[Icon]	[Icon]	[Icon]	

At the bottom of the interface, there is a status bar showing the current date and time (2006-12-07 오후 2:39:02), the software version (Version 2.9.2532.21338), and the user's IP address (172.16.201.100:389) and name (administrator).

OSD (Video Phone, Video Terminal,etc)

- Conference Management (Chair, Operator)
 - Layout
 - Move party
 - Floor
 - Mute
- Indicator
- Floor



Conference Room

- Application >> Conference Room
 - conference list

Conference Room

ON AIR | AddPac

	Conference name	Conference number	User in conference / maximum	Conference room -Lock -unlock	Conference type -video -audio
	Conference 1	1000	3/16		
	Conference 2	2000	0/4		
	Conference 3	8888	0/16		

See Detail Participant list

Detail View

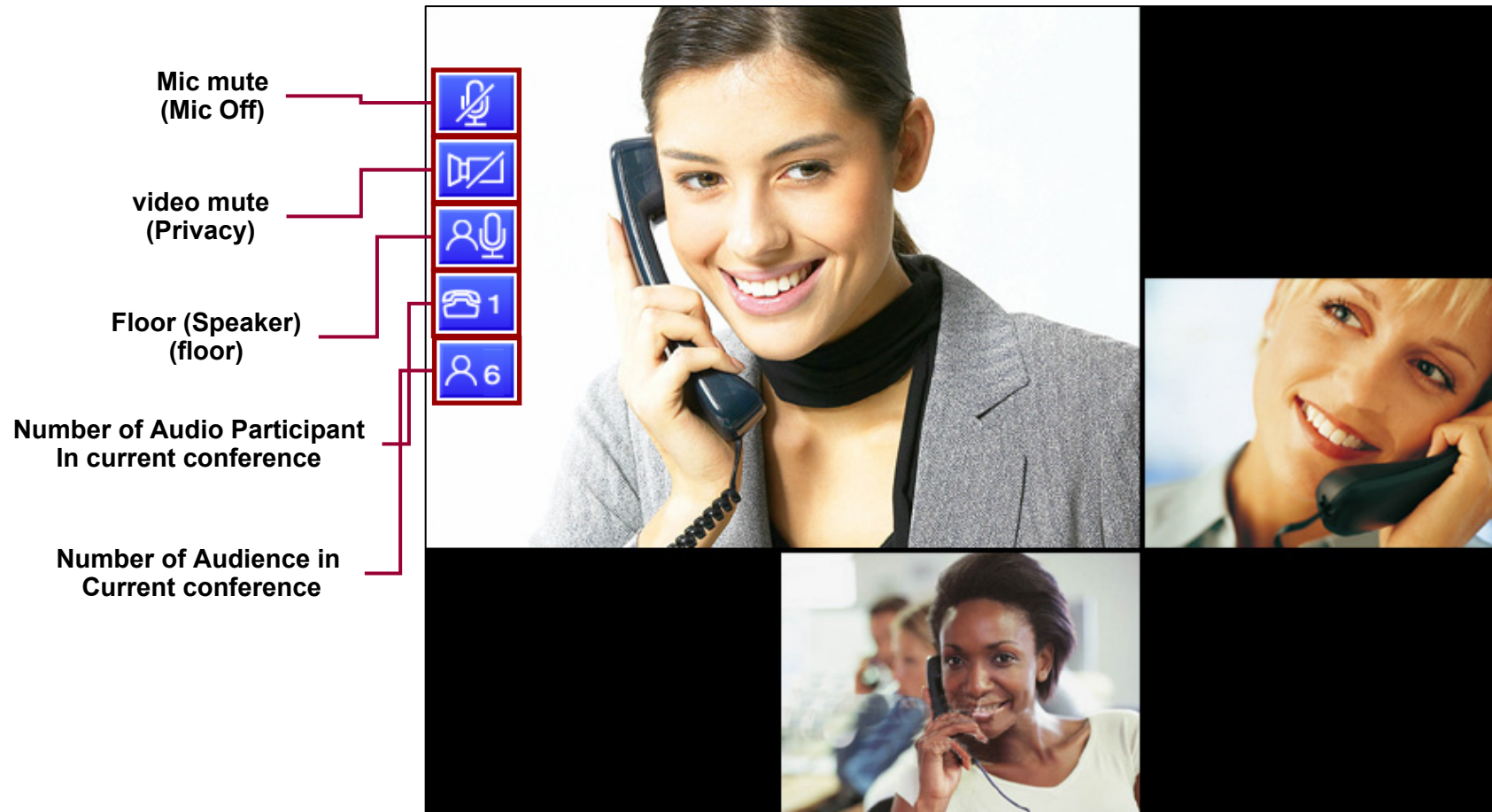
Conference layout

Conference Open

- Conference open
 - OK or Send Key in Conference Room List
 - Dialing using Conference Room List

Indicators

- User conference status information (function key)



Add Party

- New User Invite in Current Conference

Invite new user

Select User class
-participant
-audience

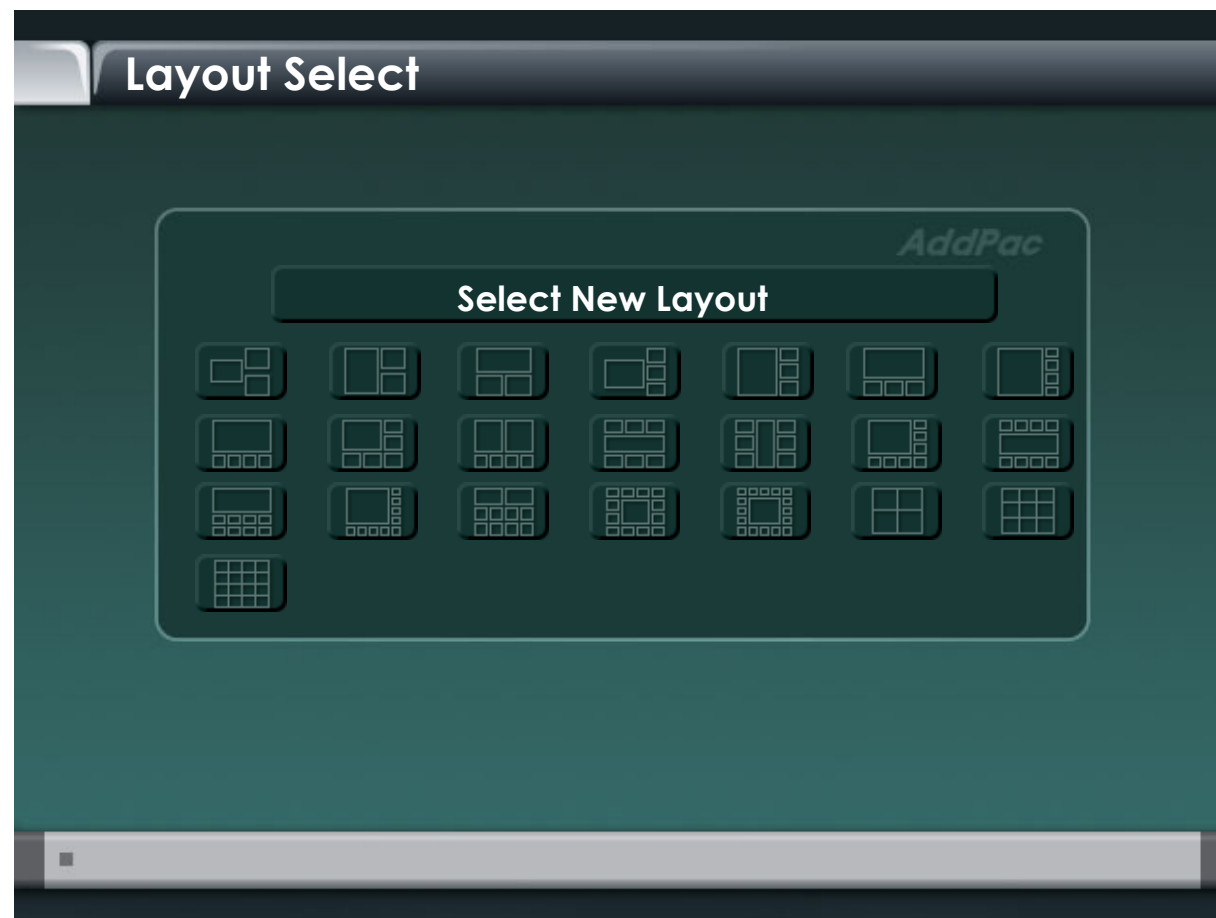
Select Media type
-audio call
-video call

3000

Participant Audio Call

Layout

- Video Layout Change in current conference



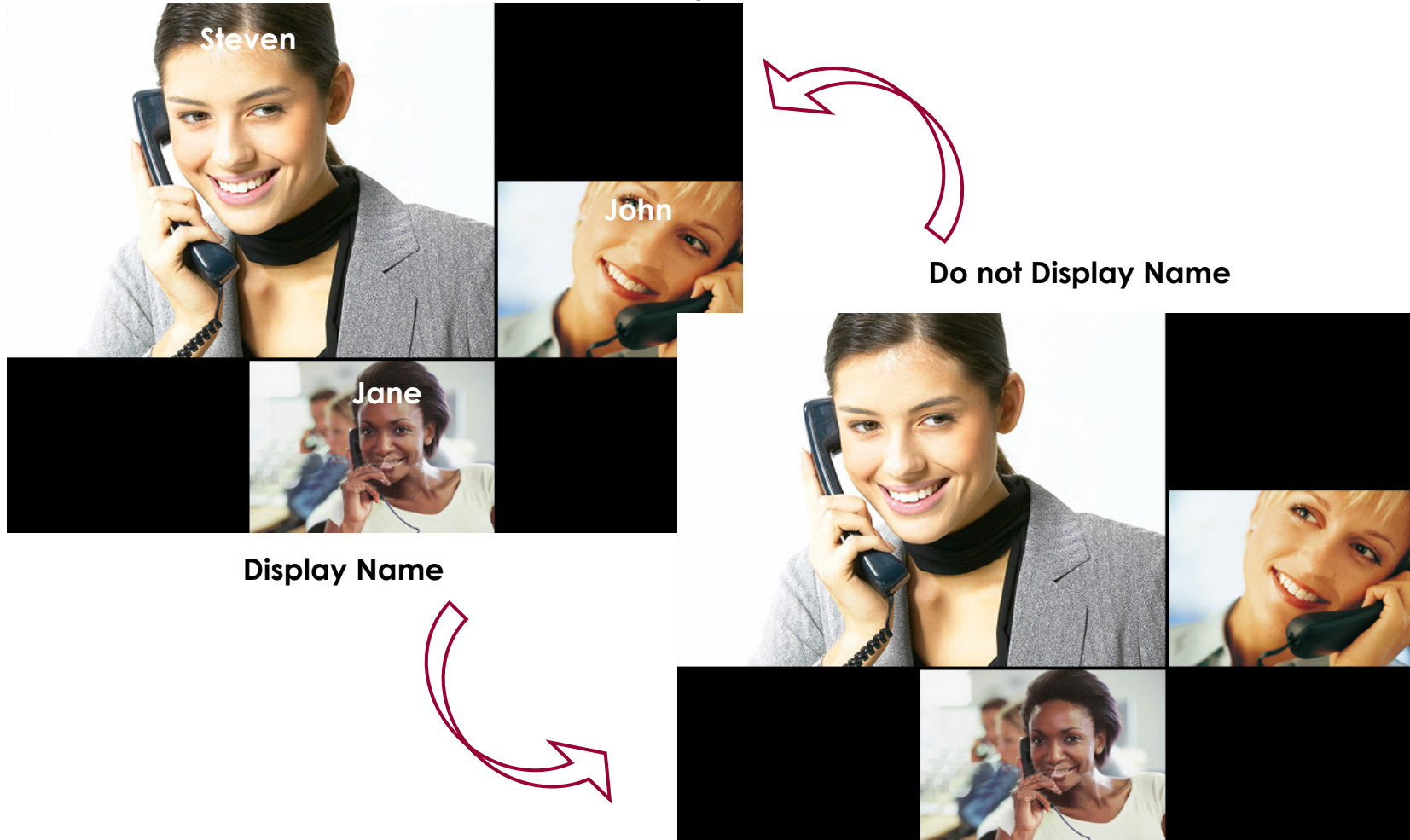
Floor To Full Screen

- Large view display mode : Floor Participant



Display Name

- Conference Participant Name Display Enable/Disable



Accept

- User unregistered want to join the conference
 - User can join the conference by Chair or Operator's Permission,

Accept

ON AIR

NUM

Incoming Call

3000

Conference Join Accept

Conference Join Reject

Accept

Reject

Participant

Audio Call

User class
-participant
-audience

Media type
-audio call
-video call

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Participant info

- Party Info
 - Simple Participant info list View/Modification
 - Chair, Operator can modify the status of participant
 - Participant, Audience can read only the status of participant



Detail participant list

- Can view the status information of member In conference

Media type
-video
-audio

Audio/Video enable status

position

User class

Participant's name

Participant's number

User class	Participant's name	Participant's number	Media type	Audio/Video enable status	position
Participant icon	Sally	3010	Video/Audio icons	ON/OFF icons	Grid icon
Participant icon	Steven	3001	Video/Audio icons	ON/OFF icons	Grid icon
Participant icon	Jane	3005	Video/Audio icons	ON/OFF icons	Grid icon
Participant icon	John	3004	Video/Audio icons	ON/OFF icons	Grid icon

Assign Floor Remove Party Position more

Assign floor

- Give floor (Right of Speaking) to Participant selected in List
 - The ICON of Participant having Floor is changed as MIC ICON

The screenshot displays the 'Participant List' interface. At the top right, there are icons for 'ON AIR', a network icon, a phone icon, 'NUM', and a moon icon. The main area contains a table of participants with columns for name, ID, and various control icons. The 'Assign Floor' button at the bottom is highlighted with a red box and a callout line pointing to it.

Participant Icon	Name	ID	Speaker Icon	Microphone Icon	Camera Icon	Grid Icon
	Sally	3010				
	Steven	3001				
	Jane	3005				
	John	3004				

Annotations:

- Have a right of speaking (points to Steven's microphone icon)
- Don't have a right of speaking (points to Jane's person icon)
- Give Floor (Speaker) to Participant (points to the Assign Floor button)

Remove Party

- Conference Call Disconnect of a Participant selected in List

The screenshot displays the 'Participant List' interface. At the top, there are icons for 'ON AIR', a network icon, a microphone icon, 'NUM', and a moon icon. The main area contains a list of participants with columns for a profile picture, name, ID number, and various control icons. The participant 'Jane' (ID 3005) is highlighted with a red box. A red line connects this box to the text 'Participant Select'. At the bottom, a navigation bar includes buttons for 'Assign Floor', 'Remove Party', 'Position', and 'more'. The 'Remove Party' button is highlighted with a red box, and a red line connects it to the text 'Conference call disconnect of a participant selected'.

Participant Select	Name	ID	Control Icons
	Sally	3010	
	Steven	3001	
	Jane	3005	
	John	3004	

Conference call disconnect of a participant selected

Assign Floor Remove Party Position more

Position

- Participant Location Change In Conference View Layout
- Display the Position List in current conference view layout



User Class

- Change the Right of Participant selected in List
- User class icon change



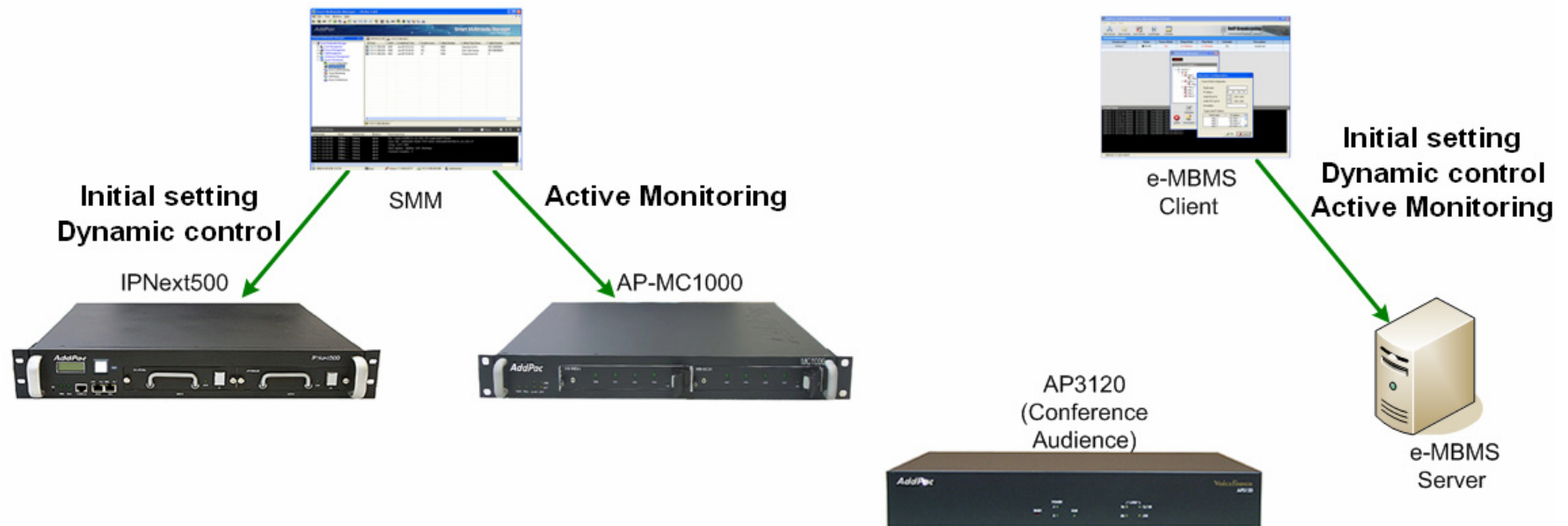
Audio/Video Mute

- audio, video mute enable/disable

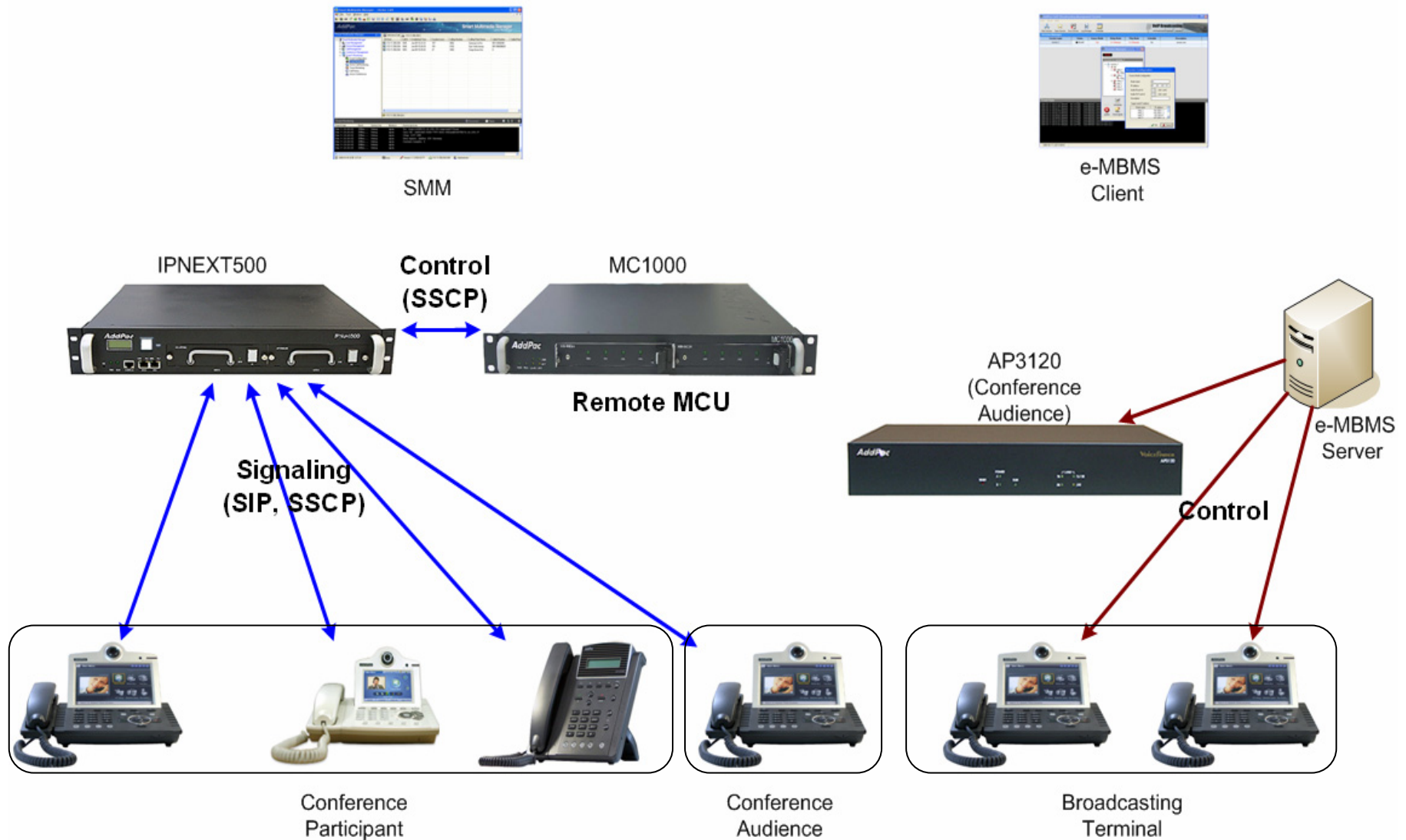
The screenshot displays the 'Participant List' interface. At the top right, there are control buttons for 'ON AIR', a grid icon, a phone icon, 'NUM', and a mute icon. Below these are two labels: 'Audio Mute/Enable' and 'Video Mute/Enable', with red lines pointing to the microphone and camera icons in the participant rows. The participant list includes Sally (3010), Steven (3001), Jane (3005), and John (3004). Steven and Jane have red 'X' marks over their microphone icons, indicating they are muted. At the bottom, a navigation bar contains 'User Class', 'Audio Enable', 'Video Mute', and 'more'. A red box highlights the 'Audio Enable' and 'Video Mute' buttons, with a red line pointing to the text 'Audio, video mute/ enable' on the left.

Participant	ID	Audio Mute/Enable	Video Mute/Enable
Sally	3010	Enabled	Enabled
Steven	3001	Muted	Muted
Jane	3005	Muted	Muted
John	3004	Enabled	Enabled

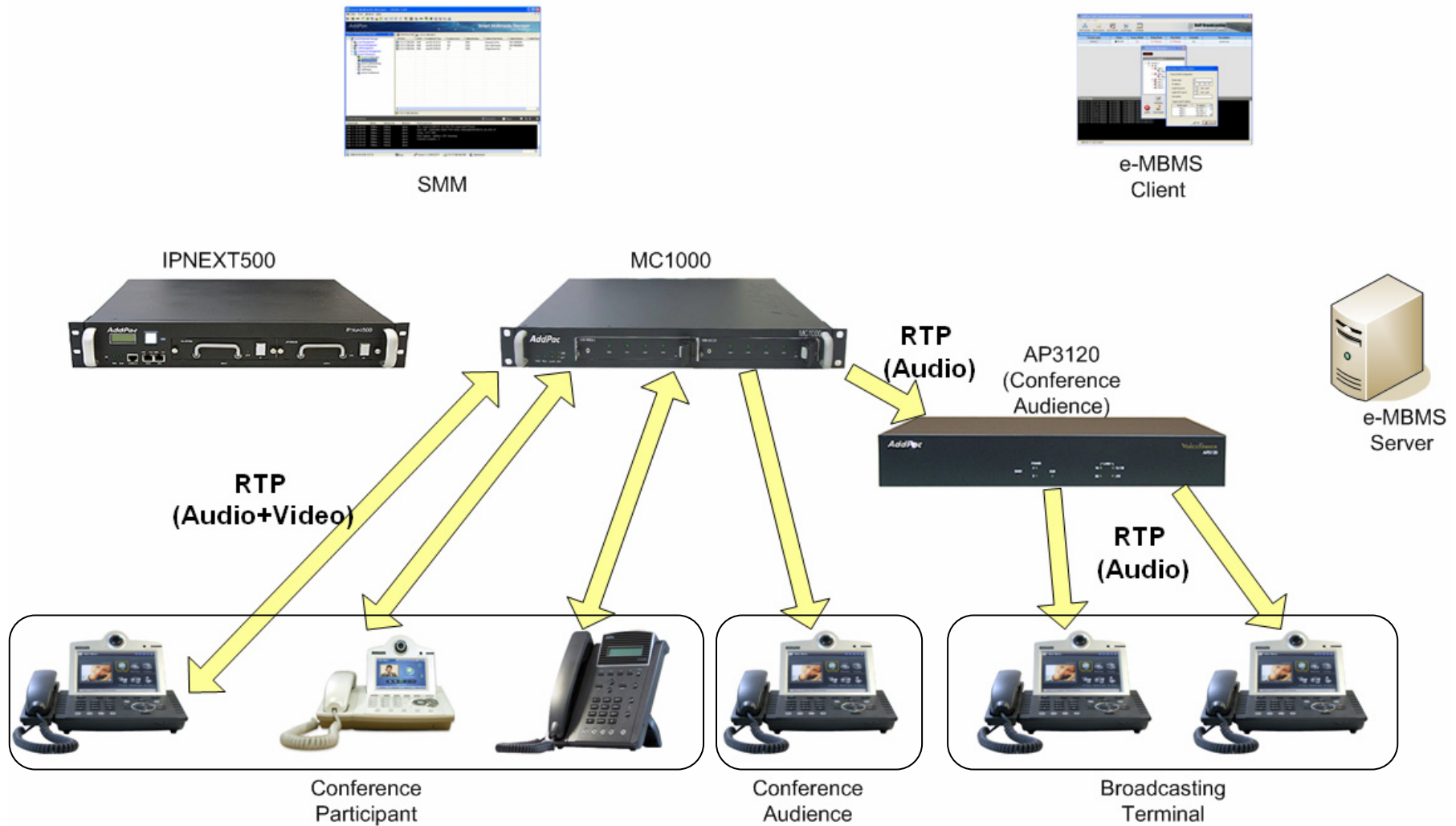
Conference Service Diagram : Example



Conference Service Diagram : Example



Conference Service Diagram : Example



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Thank you!

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