



Polycom® Immersive Telepresence (ITP) Deployment Guide



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About this Guide

The *Polycom Immersive Telepresence (ITP) Deployment Guide* provides the best practices for configuring multipoint conferences on Polycom RMX[®] 4000 and RMX 2000 real-time multimedia conference platforms with the following telepresence solutions:

- Polycom RealPresence[®] Experience (RPX[™]) 400 Series
- Polycom RPX 200 Series
- Polycom Open Telepresence Experience[™] (OTX[™]) 300
- Polycom OTX 100
- Polycom Telepresence Experience[®] (TPX[®]) 306M
- Polycom TPX 204M
- Polycom Architected Telepresence Experience[™] (ATX[™]) HD 300
- Polycom ATX SDK (which supports the ATX 200, ATX 300, and ATX 400 hardware platforms)

This guide is intended for Immersive Telepresence (ITP) administrators and for Polycom RMX 4000 and RMX 2000 administrators who manage telepresence calls. The ITP and RMX administrators should have:

- Prior knowledge and experience with the RMX 4000 and RMX 2000 conference platforms and with the Polycom Multipoint Layout Application (MLA).
- Familiarity with configuring both overall conference settings and with configuring the personal layouts of the conference sites.
- Access to Polycom RMX 4000, RMX 2000, RPX, OTX, TPX, ATX, and MLA product documentation.

Contents

1	Compatibility	1-1
	ITP Software and Hardware Compatibility	1-1
	Software Release Matrix	1-1
	Hardware and Software Compatibility Matrices	1-2
	History of Compatibility	1-3
	ITP Software Version Matrices	1-4
	User-Initiated Multipoint Compatibility	1-6
2	Multipoint Best Practices	2-1
	Calculating and Naming Conference Sites	2-1
	Calculating Total Conference Sites	2-2
	Naming Sites	2-2
	Understanding Multipoint with OTX, TPX, and ATX Systems	2-2
	Recording Telepresence Conferences	2-4
	Cascading	2-4
	Other Considerations	2-4
3	Configuring RMX Settings for ITP Systems	3-1
	Configuring the RMX Settings for 1080p HD Video	3-1
	Configuring the RMX Settings for 720p/60 HD Video	3-4
	Configuring the RMX Settings for 720p/30 HD Video	3-5
	Configuring Other RMX Settings	3-7
	Configuring RMX Settings for Large Conferences	3-8
A	Multipoint Framing Scenarios for Immersive Telepresence	A-1
B	Manual Video Layout Framing Examples	B-1

Compatibility

This chapter includes the following compatibility information:

- ITP software and hardware compatibility
- User-initiated multipoint compatibility

ITP Software and Hardware Compatibility

Software Release Matrix

Table 1-1 Software Release Matrix

Product	Software Release
ATX SDK	Version 3.0.5-22695
	Version 3.0.3
Polycom Converged Management Application™ (CMA®)	Version 6.0.1
	Version 5.5
Distributed Media Application™ (DMA™) 7000	Version 5.0
	Version 4.0.x
Immersive Telepresence (ITP)	Version 3.0.5-22695
	Version 3.0.3
Multipoint Layout Application (MLA)	Version 3.0.5.4
	Version 3.0.3.5
RMX 2000	Version 7.7.0.158
	Version 7.6.1.138

Product	Software Release
RMX 4000	Version 7.7.0.158
	Version 7.6.1.138

Hardware and Software Compatibility Matrices

Table 1-2 ITP and RMX Software Compatibility Matrix

ITP Software Version	RMX Software Version	
	7.6.1	7.7.0
Version 3.0.5	✓	✓
Version 3.0.3	✓	✓
ATX SDK Software Version		
Version 3.0.5	✓	✓
Version 3.0.3	✓	✓

Table 1-3 ITP and CMA Software Compatibility Matrix

ITP Software Version	CMA Software Version	
	5.5	6.0.1
Version 3.0.5	✓	✓
Version 3.0.3	✓	✓
ATX SDK Software Version		
Version 3.0.5	✓	✓
Version 3.0.3	✓	✓

History of Compatibility

Table 1-4 History of ITP and RMX Software Compatibility

ITP Software Version	RMX Software Version							
	6.0.1	7.0.2	7.1.0	7.2.0	7.2.1	7.2.1.25	7.2.2.64	7.6.0.170
Version 3.0.3	—	—	✓	✓	✓	✓	✓	✓
Version 3.0.2	—	—	✓	✓	✓	✓	—	—
Version 3.0.1	—	—	✓	✓	✓	✓	—	—
Version 2.7.1	✓	✓	✓	✓	✓	✓	—	—
Version 2.7	✓	✓	✓	✓	—	—	—	—
Version 2.6	✓	✓	✓	—	—	—	—	—
Version 2.5	✓	✓	✓	—	—	—	—	—
Version 2.0.3	✓	✓	—	—	—	—	—	—
Version 1.5	✓	✓	—	—	—	—	—	—
ATX SDK Software Version	6.0.1	7.0.2	7.1.0	7.2.0	7.2.1	7.2.1.25	7.2.2.64	7.6.0.170
Version 3.0.3	—	—	—	✓	✓	✓	✓	✓
Version 2.0.2	—	—	—	✓	✓	✓	—	—
Version 2.0 and 2.0.1	✓	✓	✓	✓	—	—	—	—
Version 1.1	✓	✓	—	—	—	—	—	—
Version 1.0	✓	✓	—	—	—	—	—	—

Table 1-5 History of ITP and CMA Software Compatibility

ITP Software Version	CMA Software Version			
	5.0.0	5.3.0	5.4.0	5.5
Version 3.0.3	—	—	✓	✓
Version 3.0.2	—	—	✓	✓
Version 3.0.1	—	—	✓	✓
Version 2.7.1	✓	✓	—	✓
Version 2.7	✓	✓	—	—

ITP Software Version Matrices

Table 1-6 Software Versions Used with ITP 3.0.5

ITP 3.0.5						
Product	HDX [®] Software Version	Crestron Software Version	Polycom Telepresence Tool Version	Polycom Touch Control Operating System Version	Polycom Touch Control Applications Version	Polycom Multipoint Layout Application (MLA) Version
RPX	3.0.5-22695	RPX_3.0.5-2	3.0.5.4	1.5.0-18	1.5.0-60	3.0.5.4
OTX	3.0.5-22695	RPX_3.0.5-2	3.0.5.4	1.5.0-18	1.5.0-60	3.0.5.4
TPX 306M	3.0.5-22695	RPX_3.0.5-2	3.0.5.4	1.5.0-18	1.5.0-60	3.0.5.4
ATX 300	3.0.5-22695	RPX_3.0.5-2	3.0.5.4	1.5.0-18	1.5.0-60	3.0.5.4
ATX SDK	3.0.5-22695	—	3.0.5.4	—	—	3.0.5.4

Table 1-7 Software Versions Used with ITP 3.0.3

ITP 3.0.3						
Product	HDX [®] Software Version	Crestron Software Version	Polycom Telepresence Tool Version	Polycom Touch Control Operating System Version	Polycom Touch Control Applications Version	Polycom Multipoint Layout Application (MLA) Version
RPX	3.0.3-14451	RPX_3.0.3-4	3.0.3.5	1.3.0-17	1.3.0-103	3.0.3.5
OTX	3.0.3-14451	RPX_3.0.3-4	3.0.3.5	1.3.0-17	1.3.0-103	3.0.3.5
TPX 306M	3.0.3-14451	RPX_3.0.3-4	3.0.3.5	1.3.0-17	1.3.0-103	3.0.3.5
ATX 300	3.0.3-14451	RPX_3.0.3-4	3.0.3.5	1.3.0-17	1.3.0-103	3.0.3.5
ATX SDK	3.0.3-14451	—	3.0.3.5	—	—	3.0.3.5

Table 1-8 Software Versions Used with ITP 3.0.2

ITP 3.0.2						
Product	HDX Software Version	Crestron Software Version	Polycom Telepresence Tool Version	Polycom Touch Control Operating System Version	Polycom Touch Control Applications Version	Polycom Multipoint Layout Application (MLA) Version
RPX	3.0.2-11176	RPX_3.0.2-2	3.0.2.5	1.2.0.65	1.2.0.38	3.0.1.3
OTX	3.0.2-11176	TPX_3.0.2-2	3.0.2.5	1.2.0.65	1.2.0.38	3.0.1.3
TPX 306M	3.0.2-11176	TPX_3.0.2-2	3.0.2.5	—	—	3.0.1.3
ATX 300	3.0.2-11176	TPX_3.0.2-2	3.0.2.5	1.2.0.65	1.2.0.38	3.0.1.3
ATX SDK	3.0.2-11176	—	3.0.2.5	—	—	3.0.1.3

Table 1-9 Software Versions Used with ITP 3.0.1

ITP 3.0.1						
Product	HDX Software Version	Crestron Software Version	Polycom Telepresence Tool Version	Polycom Touch Control Operating System Version	Polycom Touch Control Applications Version	Polycom Multipoint Layout Application (MLA) Version
RPX	3.0.1-10628	RPX_3.0.1-3	3.0.1.5	1.0.3-17	1.1.0.73	3.0.1.3
OTX	3.0.1-10628	TPX_3.0.1-4	3.0.1.5	1.0.3-17	1.1.0.73	3.0.1.3
TPX 306M	3.0.1-10628	TPX_3.0.1-4	3.0.1.5	—	—	3.0.1.3
ATX 300	3.0.1-10628	TPX_3.0.1-4	3.0.1.5	1.0.3-17	1.1.0.73	3.0.1.3
ATX SDK	—	—	—	—	—	—

Table 1-10 Software Versions Used with ITP 2.7.1

ITP 2.7.1						
Product	HDX Software Version	Crestron Software Version	Polycom Telepresence Tool Version	Polycom Touch Control Operating System Version	Polycom Touch Control Applications Version	Polycom Multipoint Layout Application (MLA) Version
RPX	ITP271-5267	RPX_2.7.1-1	2.7.1.1	—	—	2.7.1.1
OTX	ITP271-5267	TPX_2.7.1-3	2.7.1.1	—	—	2.7.1.1
TPX 306M	ITP271-5267	TPX_2.7.1-3	2.7.1.1	—	—	2.7.1.1
ATX 300	ITP271-5267	TPX_2.7.1-3	2.7.1.1	—	—	2.7.1.1
ATX SDK	ITP271-5267	—	2.7.1.1	—	—	2.7.1.1

User-Initiated Multipoint Compatibility

You can configure your ITP solution to enable four different types of user-initiated multipoint conferences:

- **Polycom Conferencing for Microsoft Outlook:** Using the Polycom Touch Control or the Crestron Touch Panel, users can view a list of scheduled meetings and join those meetings.
- **Meeting Composer:** Using the Polycom Touch Control or the Crestron Touch Panel, users can launch multipoint calls directly from the ITP room by choosing all of the conference participants from Favorites (for Polycom Touch Control sites) or from the directory (for both Polycom Touch Control and Crestron Touch Panel sites). Once the conference is connected, users can add and drop conference participants as needed.
- **Group Dialing (for Polycom Touch Control sites) or Multipoint Speed Dialing (for Crestron Touch Panel sites):** Using the Polycom Touch Control or the Crestron Touch Panel, users can launch Polycom RMX calls to multiple sites at one time simply by pressing a Favorite (for Polycom Touch Control sites) or a Speed Dial button (for Touch Panel sites) that the administrator has configured to dial a pre-determined list of sites.
- **Single Touch Multipoint:** Using the Polycom Touch Control or the Crestron Touch Panel, users can call a Polycom RMX Virtual Meeting Room (VMR) simply by pressing a Favorite (for Polycom Touch Control sites) or a Speed Dial button (for Touch Panel sites) that the administrator has configured to dial into the VMR.

These user-initiated multipoint conference features are available only to sites using an RMX and the MLA in automatic conference layout mode. MLA supports two types of automatic conference layout modes:

- **Room Continuous Presence:** In this standard mode, the multipoint view is automatically generated either to follow the general principles of Polycom immersive telepresence multipoint (that is, all participants are "present" during a multipoint conference) or to fit a custom-set view configured by the conference administrator for the combination of sites in a particular conference.
- **Voice Activated Room Switching (VARS):** VARS is different from the standard Room Continuous Presence mode in that the speaker's site is the only site seen by others. The view of the speaker's site is sized to be as large as possible on all of the other participants' displays. The current speaker sees the previous speaker's site (that is, the speaker's layout remains unchanged). Layouts used in VARS are not customizable.



For releases earlier than ITP 3.0.3 and RMX 7.6, VARS should not be used during Polycom Conferencing for Microsoft Outlook or Single Touch Multipoint conferences that have participants at OTX, TPX, or ATX sites. Instead, you should configure those conferences for Room Continuous Presence mode.

Multipoint Best Practices

In Polycom Immersive Telepresence Series suites, the video is delivered using two, three, or four independent Polycom HDX codecs. This creates additional multipoint complexity over traditional video conferencing because, from the perspective of the Polycom RMX, all of the codecs in an RPX, OTX, TPX, or ATX site would typically be treated as though they were separate sites.

Continuous presence transcoding is normally used for telepresence multipoint today. Until recently, the endpoints in telepresence rooms were “framed” together on the RMX by the multipoint conference platform administrator, using the personal layout control of each conference site. This approach ensured that the rooms appeared properly within the various continuous presence views.

With the introduction of Version 2.0 of the Polycom Multipoint Layout Application (MLA), the process of managing telepresence conferences became greatly simplified. With MLA, layouts are applied automatically for each telepresence site in a conference.

Polycom’s suggested best practice is to set up the MLA to configure all telepresence conference layouts automatically. You can also use MLA to define custom layout templates for automatic application. For more information, refer to the *Polycom Multipoint Layout Application User Guide for use with Polycom Telepresence Solutions*.

Calculating and Naming Conference Sites

As the RMX administrator, you must be familiar with configuring both the overall conference settings and the personal layouts of the conference sites. For more information, refer to the *Polycom RMX Administrator’s Guide*.

Calculating Total Conference Sites

To calculate the total site connections required for a multipoint conference, use the following formula:

(RPX 200 Series suites * 2) +
(RPX 400 Series suites and ATX 400 sites * 4) +
(OTX 300 sites, TPX 306 sites, and ATX 300 sites * 3) +
(TPX 204 sites and ATX 200 sites * 2) +
(OTX 100 and traditional videoconferencing systems * 1) =
Total conference sites required for the conference

Naming Sites

Naming the telepresence sites appropriately in the RMX 4000 and RMX 2000 address book is a critical step towards helping to frame the sites correctly.

When naming the sites, you must follow the naming conventions described in the “Setting Up Naming on the HDX Codecs” section of the *Polycom Immersive Telepresence (ITP) Administrator’s Guide*.

Understanding Multipoint with OTX, TPX, and ATX Systems

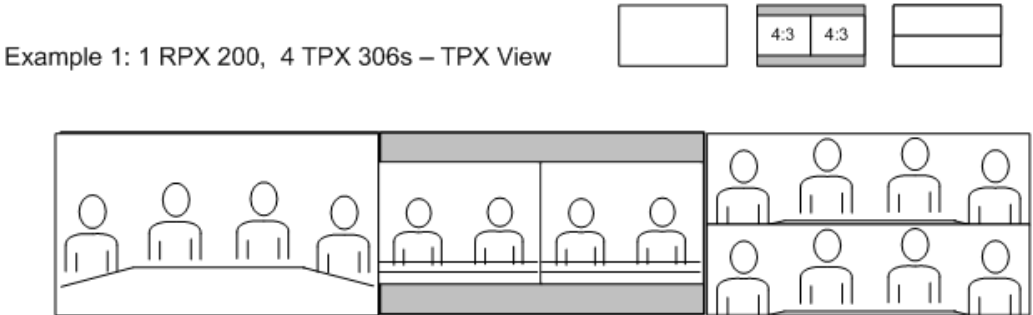
In Room Continuous Presence multipoint calls, the camera views with OTX, TPX, ATX 200, and ATX 300 systems are handled differently than with RPX and ATX 400 systems. While OTX, TPX, ATX 200, and ATX 300 systems use one camera to capture the full-room view, RPX and ATX 400 systems capture a full-room view using all the cameras, with each camera capturing a different portion of the room.



- At sites with TPX systems with Eagle Eye 1080 cameras, the cameras capture only the center four seats, not all six, when showing the full room view. TPX systems with Eagle Eye HD or Eagle Eye II cameras show the outer two seats partially obscured from view. This also applies to ATX sites where the table is placed at 110” (2.79 m).
- When viewing a 3x3 layout on an OTX, TPX, or ATX screen, the video may be shifted slightly to the right side of the screen.

This camera positioning makes multipoint video layouts straightforward. For an OTX, TPX, ATX 200, or ATX 300 site to be seen by another site, it needs only a single window in a continuous presence layout. If there are few sites in the conference, this could even be a single window with full screen layout. The camera view also allows a wide aspect ratio window to be used, such as in the

layout illustrated below. For the wide viewing windows, the top and bottom of the OTX, TPX, ATX 200, and ATX 300 view are cropped, but the people are still visible.

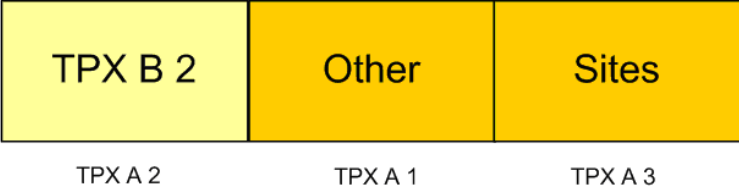


Sample Layout Showing Wide Aspect Ratio Views

You can use any of the cameras in the OTX, TPX, ATX 200, or ATX 300 room as the source for video from the room. However, to achieve optimal eye contact, choose the camera closest to the display where the other site's people are seen.

For example, suppose TPX site A is viewing site B on the left display (codec number 2). When choosing the layout for site B, use the video from the right camera (codec number 3) in the TPX room because camera 3 is closest to display 2.

TPX Site A View



TPX Site B View



TPX 306M Framing Example Illustrating Optimal Eye Contact

Recording Telepresence Conferences

With MLA, you can use the Polycom RSS™ 2000 Single Point Recording feature with the RMX 4000 or RMX 2000 to easily record ITP conferences.

When an ITP conference that is under management by the MLA has recording enabled, the recorded video on the RSS 2000 will feature the layout view normally sent to a one-screen, traditional video conferencing system. The remaining sites in the conference will see the layout that they would typically see if recording was not enabled.

Cascading

Multi-codec telepresence conferences are not supported across cascaded RMX links. However, an RMX 4000 or RMX 2000 that is hosting a telepresence conference can be cascaded to another RMX 4000 or RMX 2000 conference with traditional endpoints. From the perspective of the telepresence conference, the video source from the cascaded link will be treated as a traditional endpoint.

Other Considerations

Note the following considerations regarding multipoint conferences:

- When participants drop out of a multipoint call, the remaining sites must be re-framed to account for the change in the number of codecs. If you have configured the MLA to automatically apply layouts for your conference, MLA will re-frame the sites for you.
- If one of the HDX codecs at a telepresence site inadvertently becomes disconnected from a multipoint call, you may have to disconnect all of the remaining HDX codecs from that site in order to reconnect properly. This is because the system can be configured to disallow incoming calls to the HDX codecs when one or more of the codecs is in a call. For more information, refer to the Do Not Disturb timer information in the *Polycom Immersive Telepresence (ITP) Administrator's Guide*.
- When using the MLA user interface with an ATX 200 or ATX 400 system:
 - The MLA treats ATX 200 systems the same way as TPX 204 systems. Therefore, the MLA user interface will display ATX 200 systems as site type **TPX 204**. Additionally, if you create a layout template for an ATX 200 system, you must select **TPX 204** as the Type.
 - The MLA treats ATX 400 systems the same way as RPX 400 systems. Therefore, the MLA user interface will display ATX 400 systems as site type **RPX 400**. Additionally, if you create a layout template for an ATX 400 system, you must select **RPX 400** as the Type.

Configuring RMX Settings for ITP Systems

This chapter lists the RMX 4000 and RMX 2000 settings for:

- 1080p HD video
- 720p/60 HD video
- 720p/30 HD video

In addition, this chapter lists the other RMX settings that you should configure, as well as the settings you should configure for large conferences.



The ITP Meeting Composer dialing mechanism does not take advantage of DMA load balancing with a pool of RMXs. The ITP endpoint is pre-configured to use a particular RMX. Refer to the *Polycom DMA 7000 System Getting Started Guide* or the *Polycom DMA 7000 System Operations Guide* for more information.

Configuring the RMX Settings for 1080p HD Video

1080p HD video requires MPMx or MPM+ hardware. In addition, you must use one of the RMX 4000 or RMX 2000 versions shown in the [Software Release Matrix](#) table on page 1-1.

You must also use one of the HDX software versions shown in the [Software Versions Used with ITP 3.0.5](#) table on page 1-4.

By configuring the RMX settings as described in this section, the RMX will send the following:

- 1080p HD resolution continuous presence to ITP sites with HDX 8000 Series codecs.
- 720p/30 HD resolution continuous presence to ITP sites with HDX 9004 codecs.



It is normal to see occasional video stuttering (jerkiness) when using this conference profile on an RMX with MPMx hardware.

Table 3-1 1080p HD Video Conference Profile Settings

This setting....		Should be set to...
General	Line Rate	4096 Kbps (3072 Kbps for MPMx if all ITP systems in the call are enabled for H.264 High Profile)
	High Definition Video Switching	Unchecked
	Operator Conference	Unchecked
Advanced	LPR	Checked
	Encryption	Optional
	Auto Terminate	Optional
	Echo Suppression	Checked
	Keyboard Suppression	Optional
Gathering Settings	Enable Gathering	Optional
Video Quality	People Video: Video Quality	Sharpness
	People Video: Video Clarity	Unchecked
	Content Video: Content Settings	Graphics
	Content Video: Content Protocol	Up to H.264
Video Settings	Telepresence Mode	Auto
	Telepresence Layout Mode	Continuous Presence
	All other check boxes	Unchecked
Skins		Not Applicable

This setting...	Should be set to...	
IVR	(If desired, create an IVR service that disables the video splash screen and audio greetings. NOTE: If you are planning to include OTX, TPX, or ATX systems, you must create an IVR service that disables the video splash screen and audio greetings. There is a known issue where the interaction of IVR and 16:9 displays results in video with an incorrect aspect ratio on the 16:9 display.)	
	Conference Requires Chairperson	Unchecked
Recording		Optional

When configuring the RMX settings for 1080p HD video, note the following:

- Beginning with RMX Version 7.0.2 there is a new system flag, ITP_CERTIFICATION. This flag must be set to **YES**.

For more information about configuring RMX system flags, refer to the *Polycom RMX Administrator's Guide*.

- You should validate that the system flag MAX_CP_RESOLUTION is set to **HD1080** for the 1080p HD profile. (HD1080 is the default setting.)

For more information about setting this flag for large conferences, see [Configuring RMX Settings for Large Conferences](#) on page 3-8.

- To avoid seeing a slight vertical shift in the onscreen video when content is shared (on RMX systems with MPM+ hardware only), go to Setup > Resolution Configuration and do the following:
 - Select **Manual** in the Resolution Configuration field.
 - Set the Sharpness HD 1080p30 slider to **3072 kbps**.

Configuring the RMX Settings for 720p/60 HD Video

720p/60 HD video requires MPMx or MPM+ hardware. In addition, you must use one of the RMX 4000 or RMX 2000 versions shown in the [Software Release Matrix](#) table on page 1-1.

You must also use one of the HDX software versions shown in the [Software Versions Used with ITP 3.0.5](#) table on page 1-4.

By configuring the RMX settings as described in this section, the RMX will send the following:

- 720p/60 HD resolution continuous presence to ITP sites with HDX 8000 Series codecs.
- SD/60 resolution continuous presence to ITP sites with HDX 9004 codecs (RPX sites receive 4SIF 4:3 aspect ratio at 60 fps; TPX sites receive 720x400 16:9 aspect ratio at 60 fps).



It is normal to see occasional video stuttering (jerkiness) when using this conference profile on an RMX with MPMx hardware.

Table 3-2 720p/60 HD Video Conference Profile Settings

This setting...		Should be set to...
General	Line Rate	4096 Kbps (3072 Kbps for MPMx if all ITP systems in the call are enabled for H.264 High Profile)
	High Definition Video Switching	Unchecked
	Operator Conference	Unchecked
Advanced	LPR	Checked
	Encryption	Optional
	Auto Terminate	Optional
	Echo Suppression	Checked
	Keyboard Suppression	Optional
Gathering Settings	Enable Gathering	Optional
Video Quality	People Video: Video Quality	Motion
	Content Video: Content Settings	Graphics
	Content Video: Content Protocol	Up to H.264

This setting...		Should be set to...
Video Settings	Telepresence Mode	Auto
	Telepresence Layout Mode	Continuous Presence
	All other check boxes	Unchecked
Skins		Not Applicable
IVR	(If desired, create an IVR service that disables the video splash screen and audio greetings. NOTE: If you are planning to include OTX, TPX, or ATX systems, you must create an IVR service that disables the video splash screen and audio greetings. There is a known issue where the interaction of IVR and 16:9 displays results in video with an incorrect aspect ratio on the 16:9 display.)	
	Conference Requires Chairperson	Unchecked
Recording		Optional

When configuring the RMX settings for 720p/60 HD video, note the following:

- Beginning with RMX Version 7.0.2 there is a new system flag, ITP_CERTIFICATION. This flag must be set to **YES**.
For more information about configuring RMX system flags, refer to the *Polycom RMX Administrator's Guide*.
- You should validate that the system flag MAX_CP_RESOLUTION is set to either **HD720** or **HD1080** for the 720p/60 HD conference profile.
For more information about setting this flag for large conferences, see [Configuring RMX Settings for Large Conferences](#) on page 3-8.

Configuring the RMX Settings for 720p/30 HD Video

720p/30 HD video is supported on all RMX hardware platforms. However, you must use one of the RMX 4000 or RMX 2000 versions shown in the [Software Release Matrix](#) table on page 1-1.

You must also use one of the HDX software versions shown in the [Software Versions Used with ITP 3.0.5](#) table on page 1-4.

By configuring the RMX settings as described in this section, the RMX will send the following:

- 720p/30 HD resolution continuous presence to all ITP sites except those described in the following bullet.
- 1080p video to H.264 High Profile-enabled ITP sites connecting to the RMX with MPMx.

Table 3-3 720p/30 HD Video Conference Profile Settings

This setting...		Should be set to...
General	Line Rate	1920 Kbps
	High Definition Video Switching	Unchecked
	Operator Conference	Unchecked
Advanced	LPR	Checked
	Encryption	Optional
	Auto Terminate	Optional
	Echo Suppression	Checked
	Keyboard Suppression	Optional
Gathering Settings	Enable Gathering	Optional
Video Quality	People Video: Video Quality	Sharpness
	People Video: Video Clarity	Unchecked
	Content Video: Content Settings	Graphics
	Content Video: Content Protocol	Up to H.264
Video Settings	Telepresence Mode	Auto
	Telepresence Layout Mode	Continuous Presence
	All other check boxes	Unchecked
Skins		Not Applicable

This setting...		Should be set to...
IVR	(If desired, create an IVR service that disables the video splash screen and audio greetings. NOTE: If you are planning to include OTX, TPX, or ATX systems, you must create an IVR service that disables the video splash screen and audio greetings. There is a known issue where the interaction of IVR and 16:9 displays results in video with an incorrect aspect ratio on the 16:9 display.)	
	Conference Requires Chairperson	Unchecked
Recording		Optional

When configuring the RMX settings for 720p/30 HD video, note the following:

- Beginning with RMX Version 7.0.2 there is a new system flag, ITP_CERTIFICATION. This flag must be set to **YES**.

For more information about configuring RMX system flags, refer to the *Polycom RMX Administrator's Guide*.

- You should validate that the system flag MAX_CP_RESOLUTION is set to either **HD720** or **HD1080** for the 720p/30 HD conference profile.

For more information about setting this flag for large conferences, see [Configuring RMX Settings for Large Conferences](#) on page 3-8.

Configuring Other RMX Settings

This section lists other RMX settings that you should set.

Table 3-4 RMX Settings

This setting...	Should be set to...
RMX LAN connection to network switch or router	1 Gbps (not 100 Mbps)
HDX LAN connection to network switch or router	100 Mbps or 1 Gbps

This setting...		Should be set to...
Address Book	Name	Use the naming convention described in the Naming Sites section on page 2-2, with a common name for each HDX codec at a telepresence site followed by the numeral 1, 2, 3, or 4
	Telepresence Mode	RPX or TPX (if you have an OTX or an ATX, select TPX)
IVR (If desired, create an IVR service that disables the video splash screen and audio greetings.)	Enable Welcome Messages	Unchecked
	Enable Chairperson Messages	Unchecked
	Enable Password Messages	Unchecked
	Enable Roll Call	Unchecked
	Click & View	Unchecked

Optionally, if you do not want the “on hold” music to be heard at the participating sites, set the system flag `IVR_MUSIC_VOLUME` to `0`, and the music will not be heard.

Configuring RMX Settings for Large Conferences

For very large conferences, with the total number of HDX participants approaching the resource capacity limits as listed in the table below, you will need to configure the RMX to use a lower video resolution.

Table 3-5 HDX Participant Capacity

Resolution	HDX Participant Capacity			
	RMX 2000		RMX 4000	
	MPM+	MPMx	MPM+	MPMx
1080p/30	20	30	40	60
720p/60	20	30	40	60
720p/30	40	60	80	120
SD30	60	120	120	240
CIF	160	180	320	360

Configure the RMX as described in the previous sections except for the following:

- For SD30 resolution, use the system flag `MAX_CP_RESOLUTION = SD30`.

Additionally in the conference profile, set Video Quality = **Sharpness** and Line Rate = **384Kbps**. Higher line rates may result in the RMX sending 2CIF instead of SD30.

- For CIF resolution, use the system flag `MAX_CP_RESOLUTION = CIF`. Content video will have a low frame rate.

Multipoint Framing Scenarios for Immersive Telepresence

This appendix contains diagrams that illustrate many supported framing combinations for multipoint conferences on an RMX 4000 or RMX 2000 multimedia conference platform with RPX, OTX, TPX, and ATX suites in the same conference. All of these scenarios are currently supported by the automatic layout features in MLA. All scenarios are supported at:

- 1080p/30, 720p/60, or 720p/30 when running on RMX 4000 or RMX 2000 with MPM+ and MPMx.

With the introduction of additional ITP system models such as TPX HD 204M, OTX, and ATX, the number of multipoint framing combinations involving all types of telepresence suites increased dramatically. Therefore, every framing scenario is not shown in this appendix. For example, every scenario that includes a TPX HD 306M has not been updated to show corresponding TPX HD 204M layout views.

When framing combinations that are not shown in this appendix, you should follow these Polycom principles of multipoint design:

- 1 Every seat should be seen at all times.
- 2 Preference in view should follow this order:
 - a RPX HD 400 Series and ATX 400
 - b RPX HD 200 Series
 - c OTX 300, TPX HD 306M, and ATX 300
 - d TPX HD 204M and ATX 200
 - e OTX 100
 - f Traditional video conferencing endpoints
- 3 You should try to align the most important sites around middle of the screens to provide the best possible eye contact for those sites.

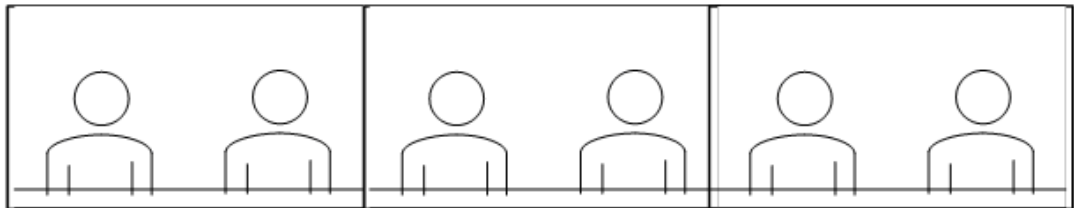
These principles have been adopted by MLA when automatically generating multipoint layouts for scenarios not listed in this appendix.



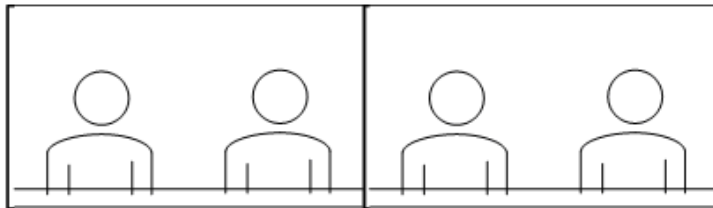
- Many of the scenarios listed in this appendix include a representative full room view of a TPX system. However, TPX systems with Eagle Eye 1080 cameras capture only the center four seats, not all six, when showing the full room view. TPX systems with Eagle Eye HD or Eagle Eye II cameras show the outer two seats partially obscured from view.
- Although some ITP systems are not shown in this appendix, the scenarios shown for RPX 400 systems are equivalent to ATX 400 systems, TPX 306M systems are equivalent to OTX 300 and ATX 300 systems, TPX 204 systems are equivalent to ATX 200 systems, and OTX 100 systems are equivalent to HDX systems.

Category A: TPX PARTICIPANTS

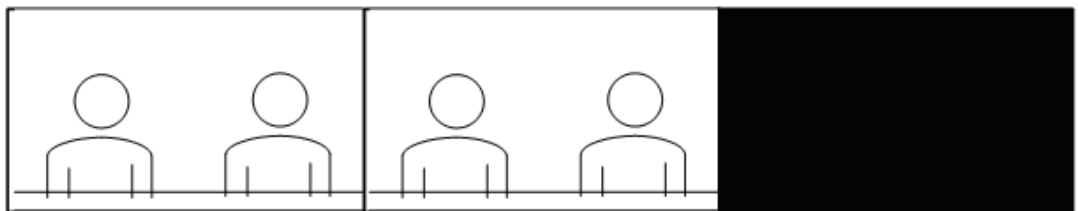
Scenario 1a: 2 TPX 306 – point to point, no MCU



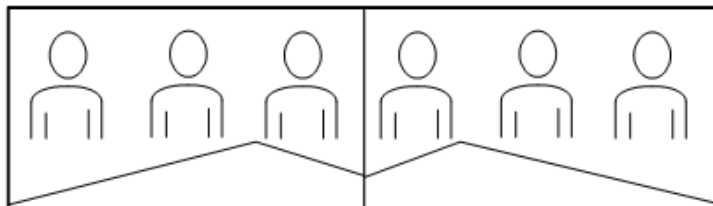
Scenario 1b: 2 TPX 204s – point to point, no MCU



Scenario 1c: TPX 306 to TPX 204 – point to point, no MCU – TPX 306 view



TPX 204 view

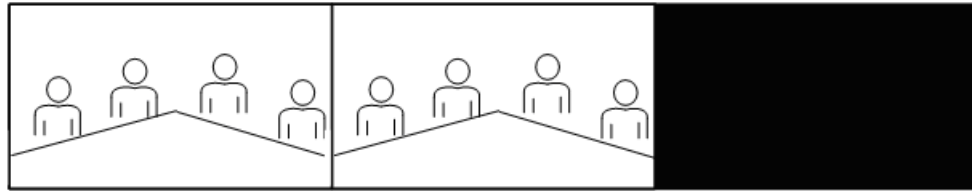


Category A: TPX PARTICIPANTS

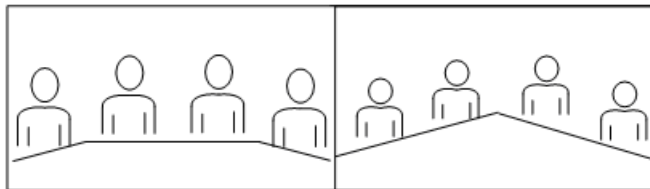
Scenario 2: 3 TPXs – 306 view



NOTE: The participants shown in scenario 2 include 1 TPX 306 and 2 TPX 204s. Any combination of 3 TPXs would result in a generalized layout structure similar to what is seen below



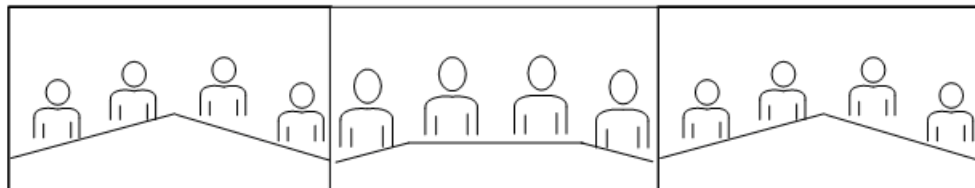
204 view



Scenario 3: 4 TPXs – 306 view



NOTE: The participants shown in scenario 3 include 2 TPX 306s and 2 TPX 204s. Any combination of 4 TPXs would result in a generalized layout structure similar to what is seen below



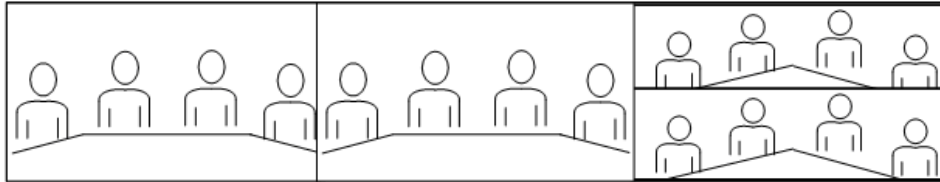
204 view



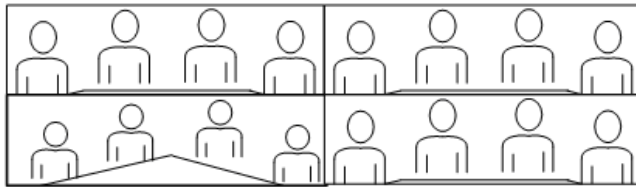
Category A: TPX PARTICIPANTS

NOTE: The participants shown in scenario 4 include 3 TPX 306s and 2 TPX 204s. Any combination of 5 TPXs would result a generalized layout structure similar to what is seen below

Scenario 4: 5 TPXs – 306 view

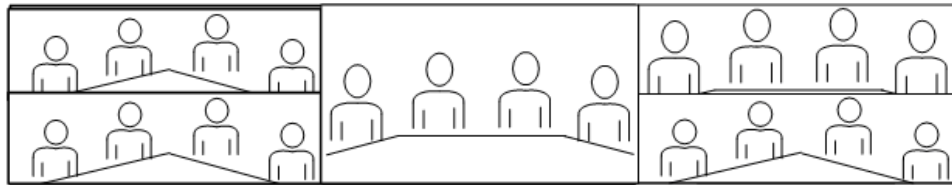


204 view



NOTE: The participants shown in scenario 5 include 3 TPX 306s and 3 TPX 204s. Any combination of 6 TPXs would result in a generalized layout structure similar to what is seen below

Scenario 5: 6 TPXs – 306 view

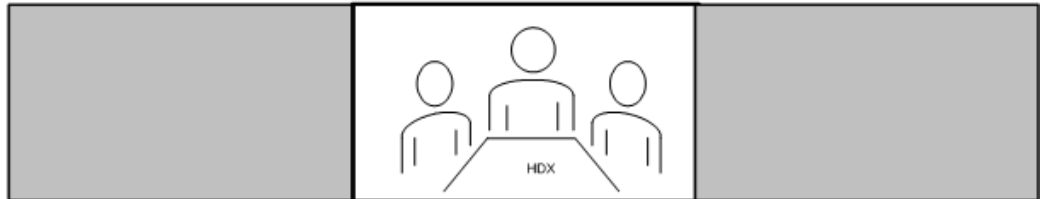


204 view

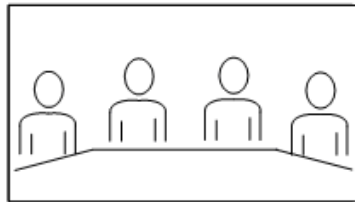


Category B: TPX and HDX

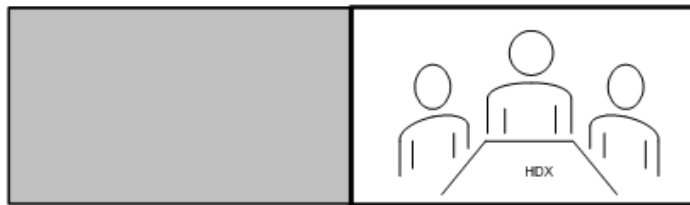
Scenario 1a: Point to Point TPX 306 to HDX – (no MCU)



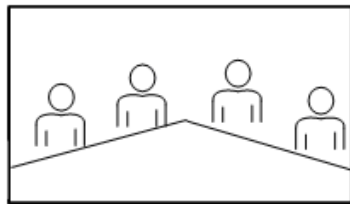
HDX view



Scenario 1b: Point to Point TPX 204 to HDX – (no MCU)



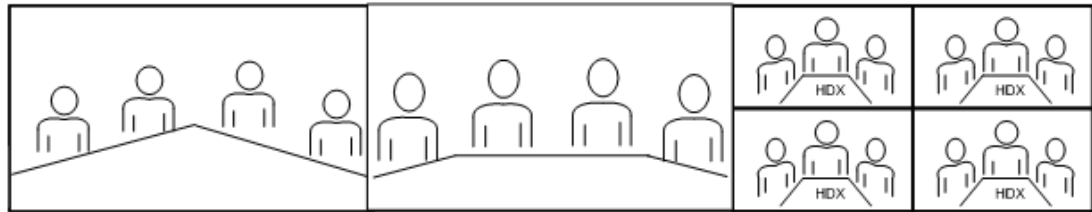
HDX view



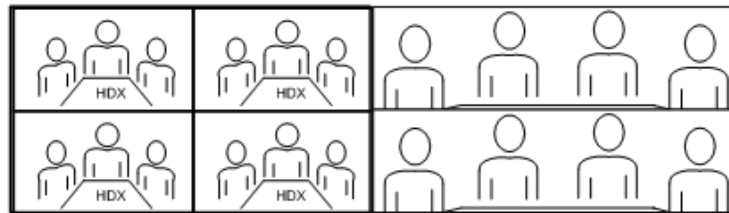
Category B: TPX and HDX

NOTE: The participants shown in scenario 2 include 2 TPX 306s, and 1 TPX 204. Any combination of 3 TPXs would result in a generalized layout structure similar to what is seen below

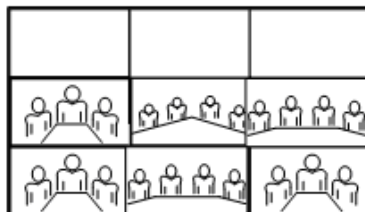
Scenario 2: Up to 3 TPXs, up to 4 HDXs – TPX 306 View



204 view



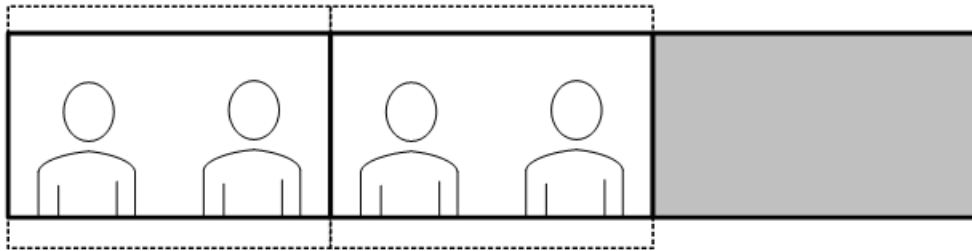
HDX view



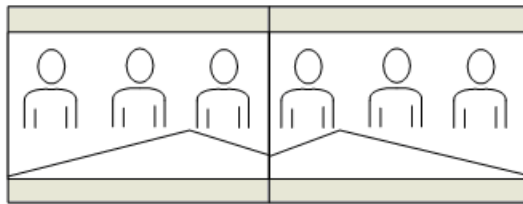
Category C: TPX and RPX Point to Point

Scenario 1a: Point to Point TPX 306 to RPX 200 (TPX View)

RPX participant video is zoomed and cropped to fill screen as seen below

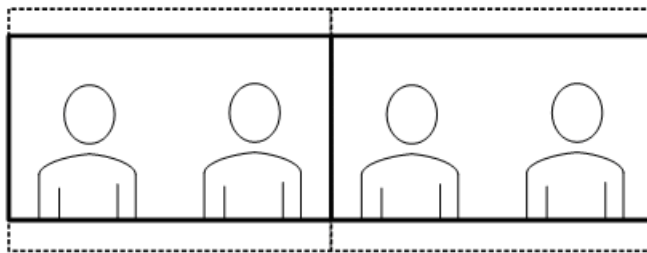


RPX 200 view

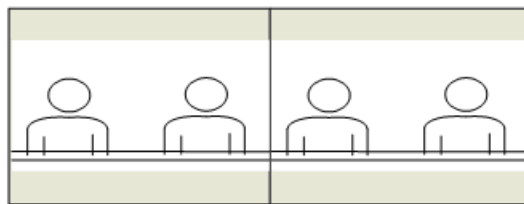


Scenario 1b: Point to Point TPX 204 to RPX 200 (TPX View)

RPX participant video is zoomed and cropped to fill screen as seen below



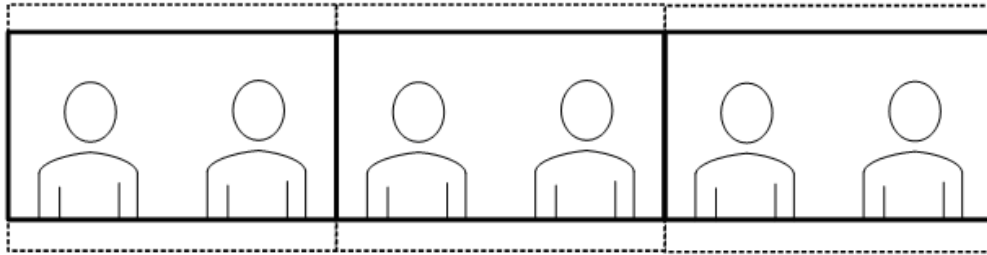
RPX 200 view



Category C: TPX and RPX Point to Point

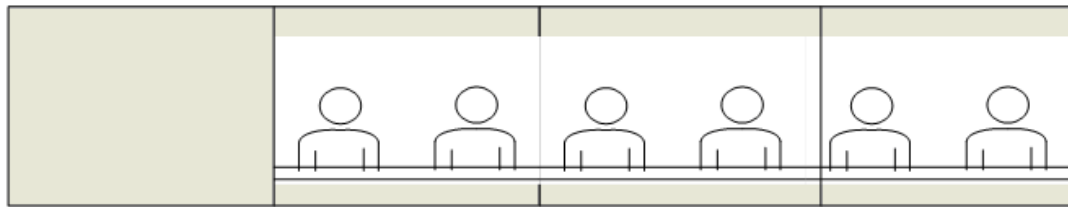
Scenario 2a: Point to Point TPX 306 to RPX 400 (TPX View)

RPX participant video is zoomed and cropped to fill screen as seen below



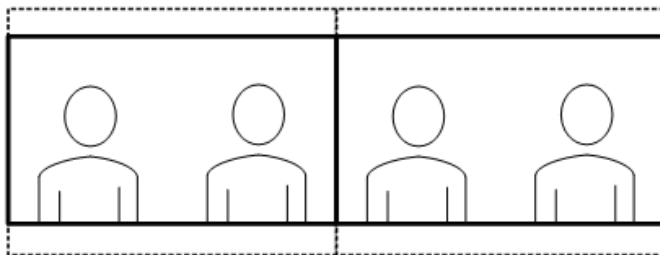
Far left side of RPX 400 room not seen

RPX 400 view



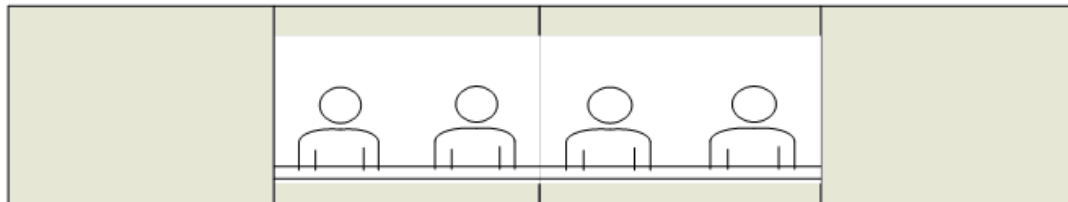
Scenario 2b: Point to Point TPX 204 to RPX 400 (TPX View)

RPX participant video is zoomed and cropped to fill screen as seen below



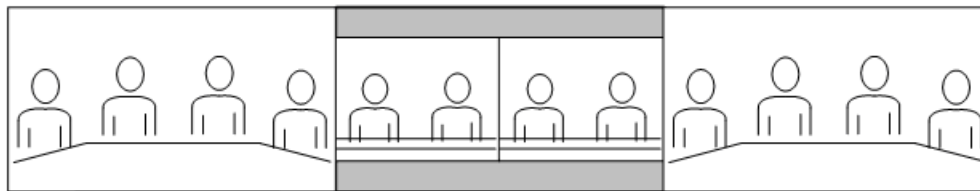
Far left and far right sides of RPX 400 room not seen

RPX 400 view



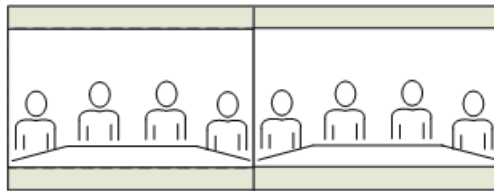
Category D: TPX 306 and RPX 200 PARTICIPANTS

Scenario 1: 1 RPX 200, up to 3 TPX 306s (TPX View)

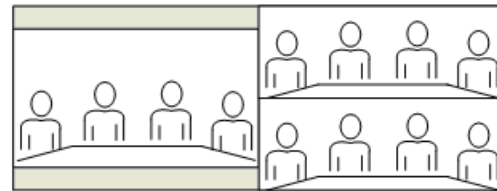


Right side is blank if 2 TPX 306s

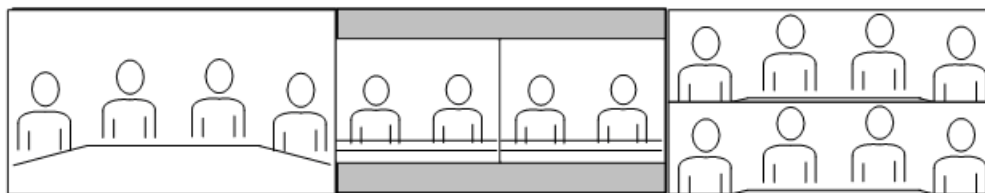
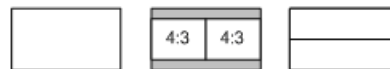
RPX 200 view – 2 TPXs



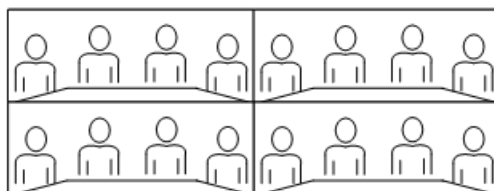
RPX 200 view – 3 TPXs



Scenario 2: 1 RPX 200, 4 TPX 306s – TPX View

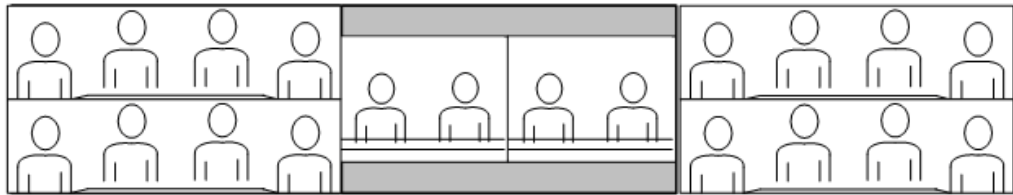
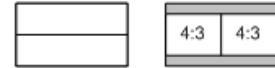


RPX 200 View – 4 TPX 306s

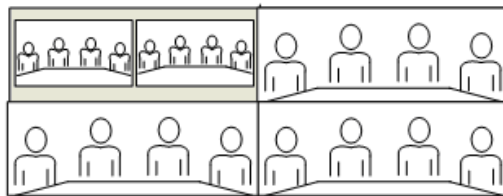


Category D: TPX 306 and RPX 200 PARTICIPANTS

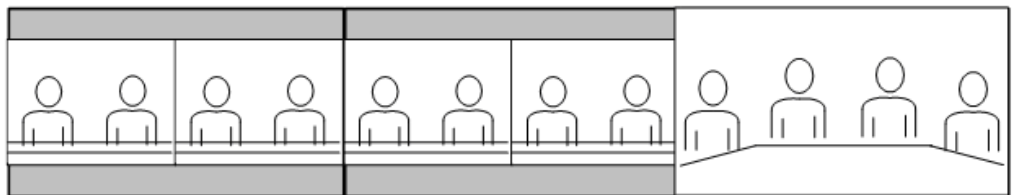
Scenario 3: 1 RPX 200, 5 TPX 306s – TPX View



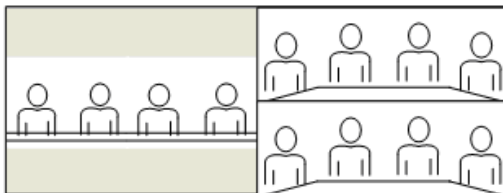
RPX 200 View – 5 TPXs



Scenario 4: 2 RPX 200s, 2 TPX 306s - TPX View

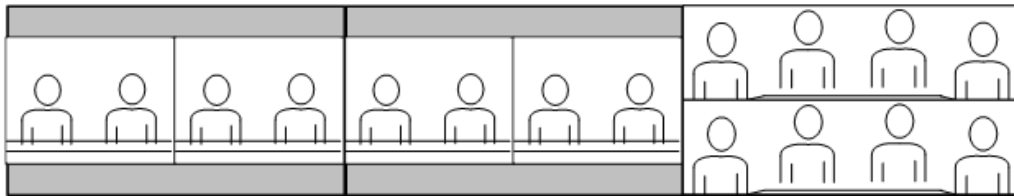


RPX 200 View

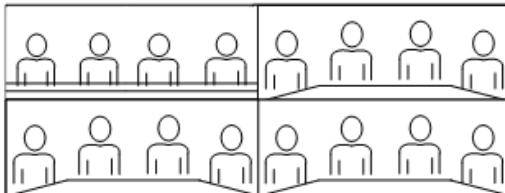


Category D: TPX 306 and RPX 200 PARTICIPANTS

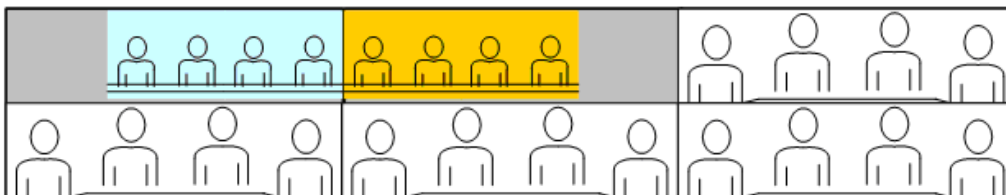
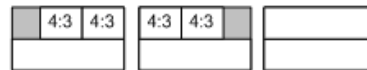
Scenario 5: 2 RPX 200s, 3 TPX 306s – TPX View



RPX 200 View 



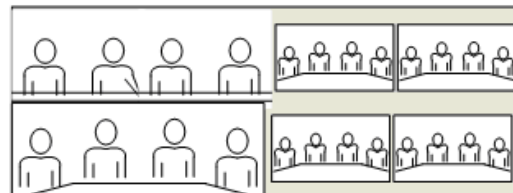
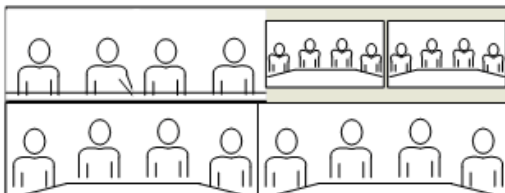
Scenario 6: 2 RPX 200s, 4 or 5 TPX 306s – TPX View



RPX 200 View – 4 TPXs

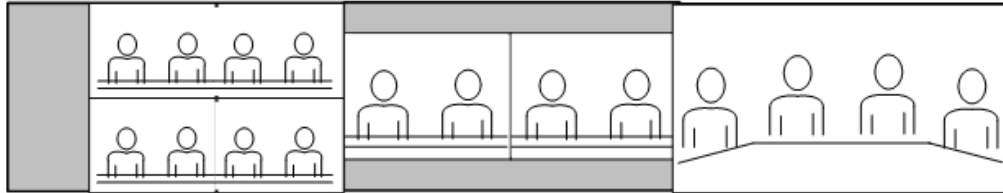
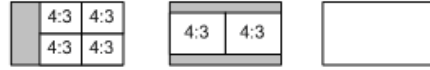


5 TPXs

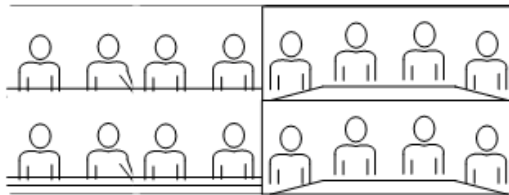


Category D: TPX 306 and RPX 200 PARTICIPANTS

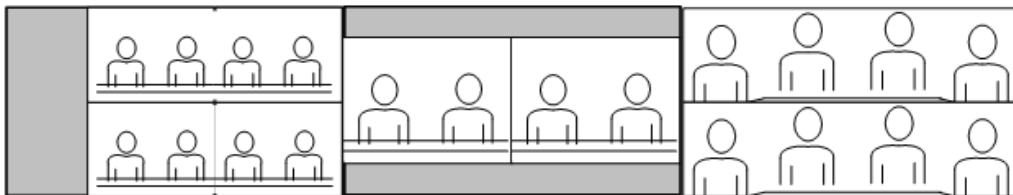
Scenario 7: 3 RPX 200s, 2 TPX 306s – TPX View



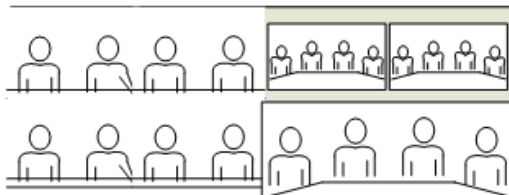
RPX 200 view



Scenario 8: 3 RPX 200s, 3 TPX 306ss – TPX View

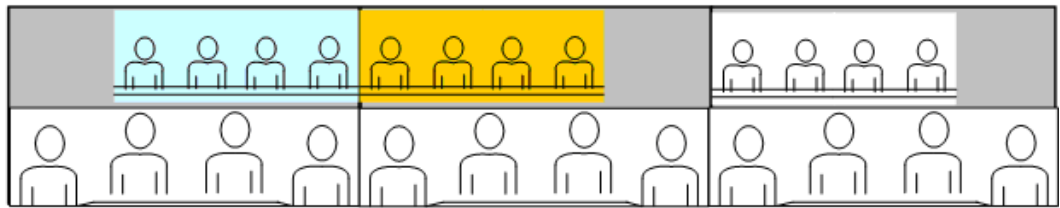
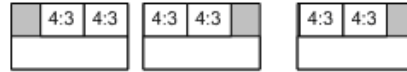


RPX 200 view

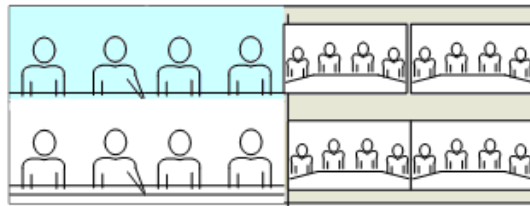


Category D: TPX 306 and RPX 200 PARTICIPANTS

Scenario 9: 3 RPX 200s, 4 TPX 306s – TPX View

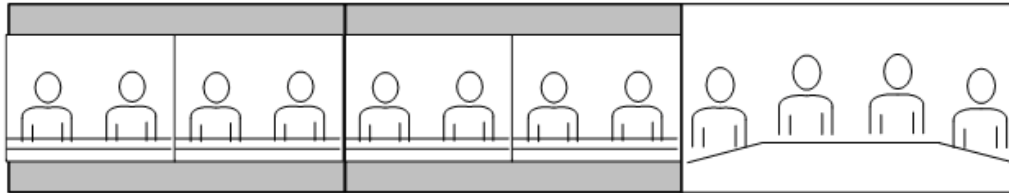


RPX 200 view

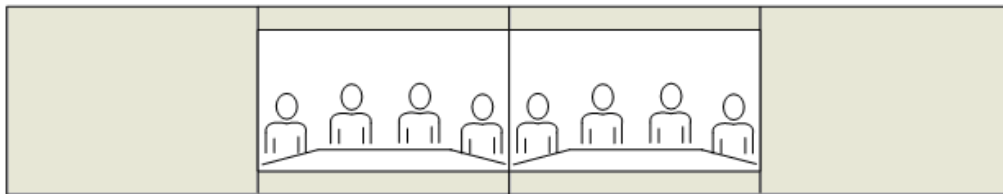


Category E: TPX 306 and RPX 400 PARTICIPANTS

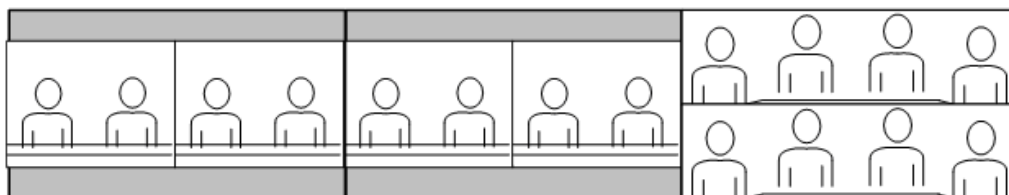
Scenario 1: 1 RPX 400, 2 TPX 306s – TPX View



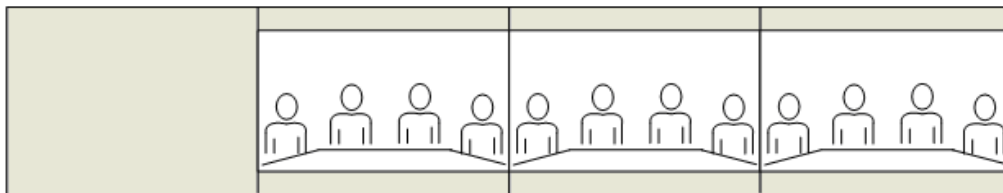
RPX 400 View



Scenario 2: 1 RPX 400, 3 TPX 306s – TPX View

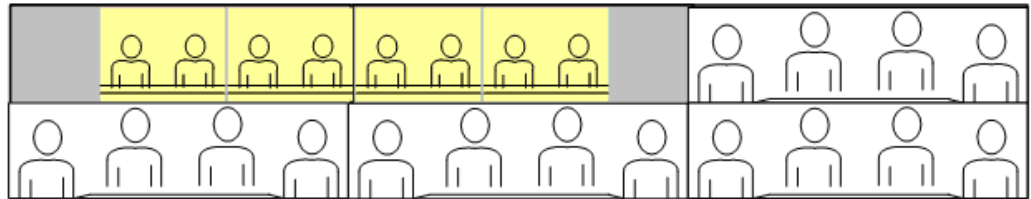
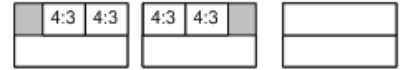


RPX 400 View

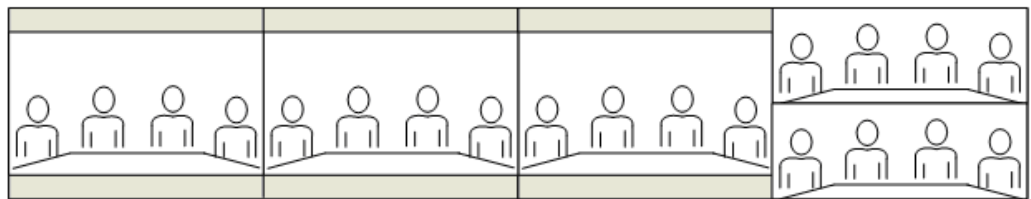


Category E: TPX 306 and RPX 400 PARTICIPANTS

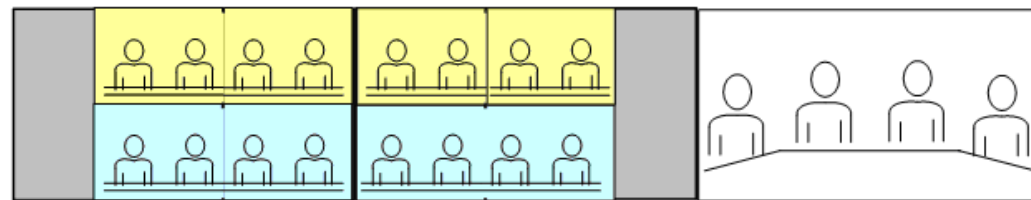
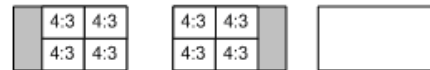
Scenario 3: 1 RPX 400, 4 or 5 TPX 306s – TPX View



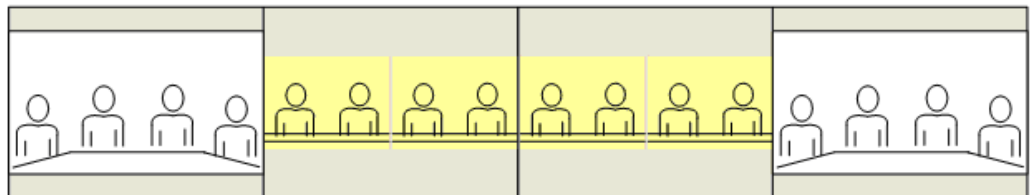
RPX 400 View



Scenario 4: 2 RPX 400s, 2 TPX 306s – TPX View

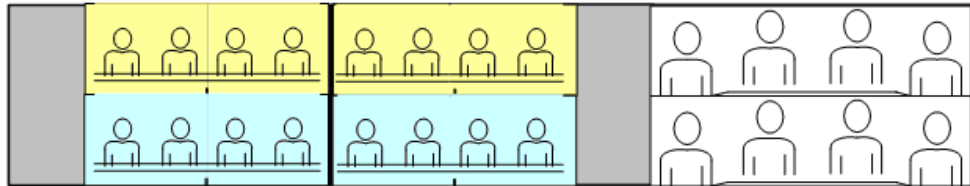
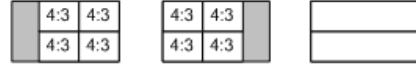


RPX 400 view

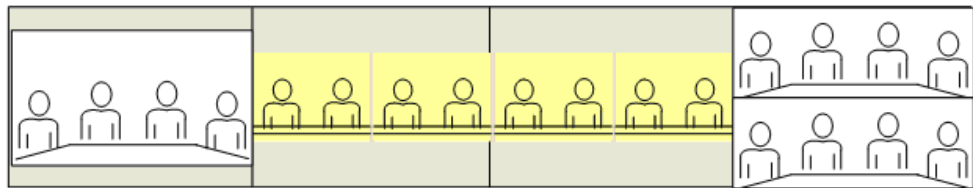
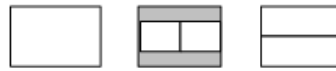


Category E: TPX 306 and RPX 400 PARTICIPANTS

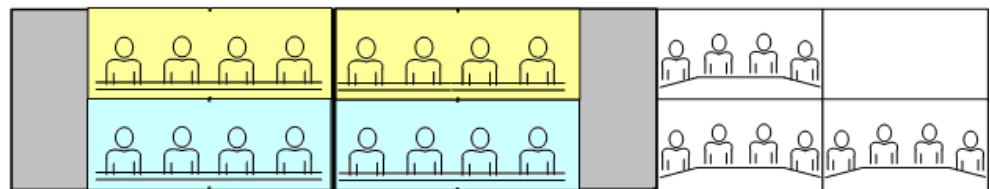
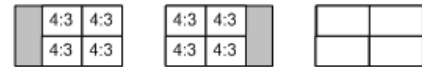
Scenario 5: 2 RPX 400s, 3 TPX 306s – TPX View



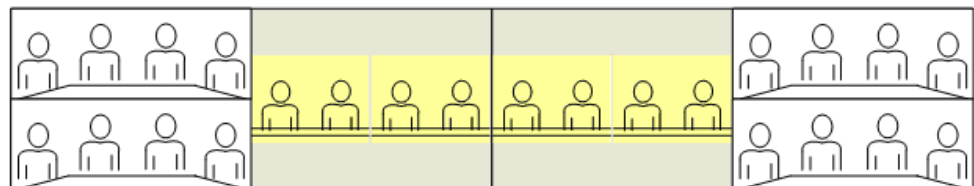
RPX 400 view



Scenario 6: 2 RPX 400s, 4 TPX 306s – TPX View

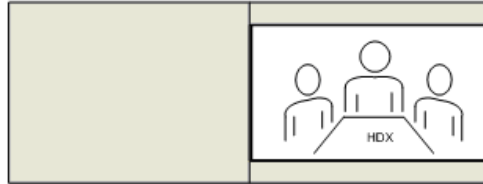


RPX 400 view

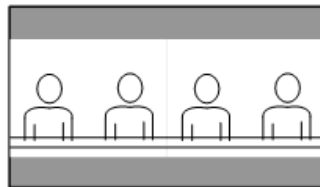


Category F: RPX 200 PARTICIPANTS

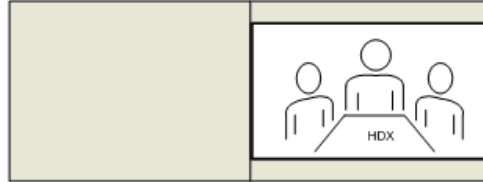
Scenario 1: RPX 200 to HDX (MCU recommended)



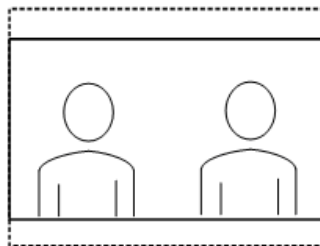
HDX View



Scenario 1a: RPX 200 to HDX (no MCU – point to point call)

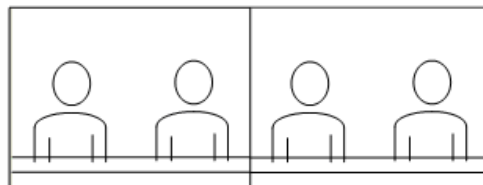


HDX View



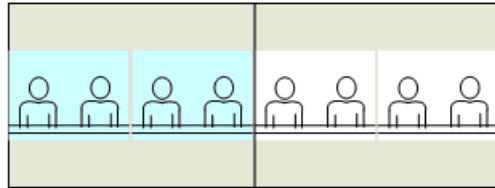
Left side of RPX 200 room not seen

Scenario 2: 2 RPX 200s (point to point call, no MCU)

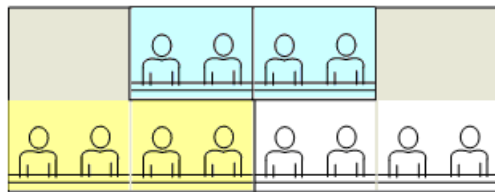


Category F: RPX 200 PARTICIPANTS

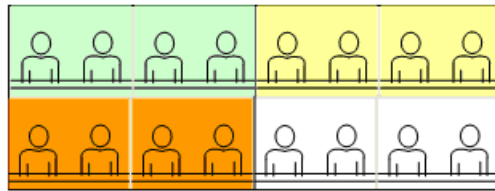
Scenario 3: 3 RPX 200s



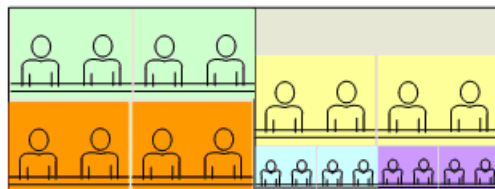
Scenario 4: 4 RPX 200s



Scenario 5: 5 RPX 200s

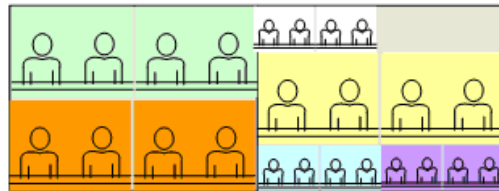


Scenario 6: 6 RPX 200s

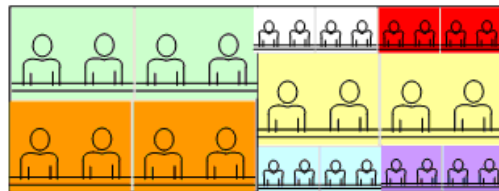


Category F: RPX 200 PARTICIPANTS

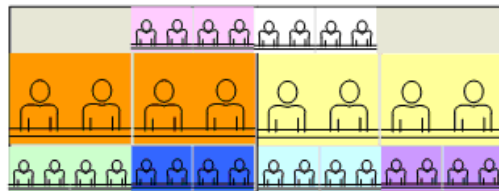
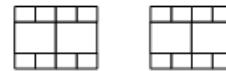
Scenario 7: 7 RPX 200s



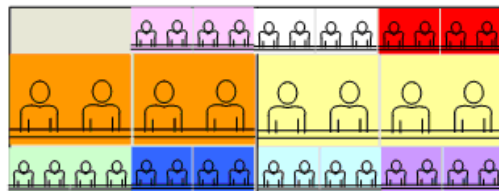
Scenario 8: 8 RPX 200s



Scenario 9: 9 RPX 200s

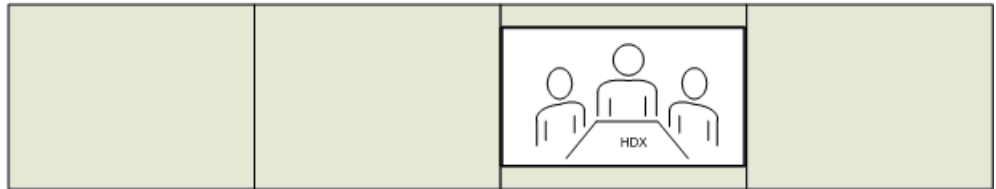


Scenario 10: 10 RPX 200s

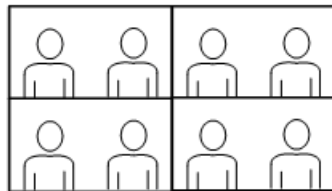


Category G: RPX 400 PARTICIPANTS

Scenario 1: RPX 400 to HDX – MCU recommended

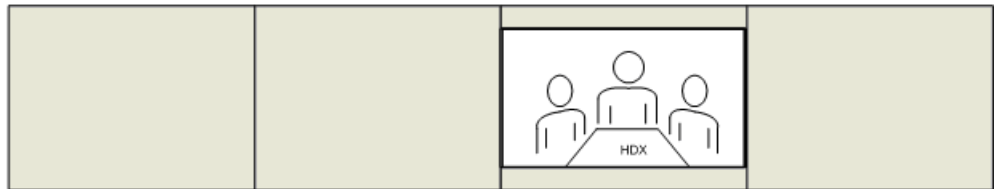


HDX View

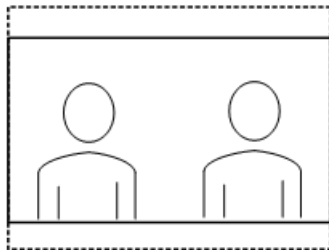


Left half of RPX 400 room on top of screen,
right half of RPX 400 room on bottom of screen

Scenario 1a: RPX 400 to HDX – point to point, no MCU

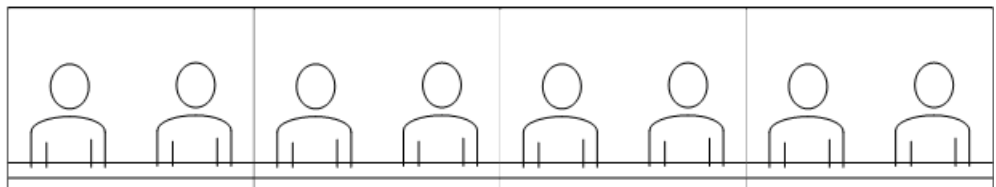


HDX View



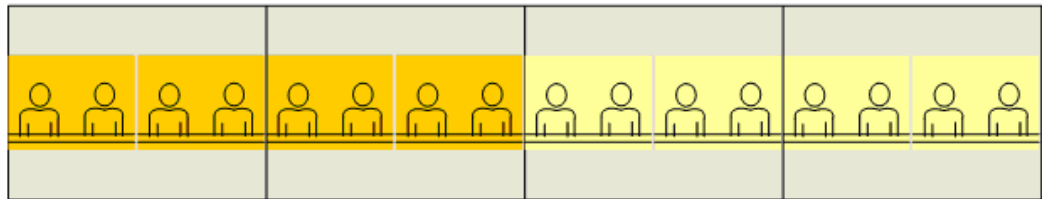
Only center right side of RPX 400 room seen

Scenario 2: 2 RPX 400s – point to point, no MCU

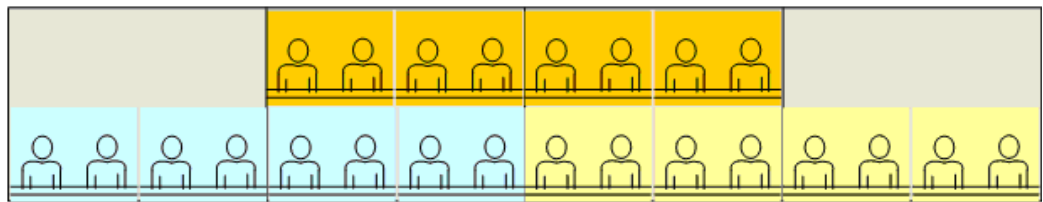


Category G: RPX 400 PARTICIPANTS

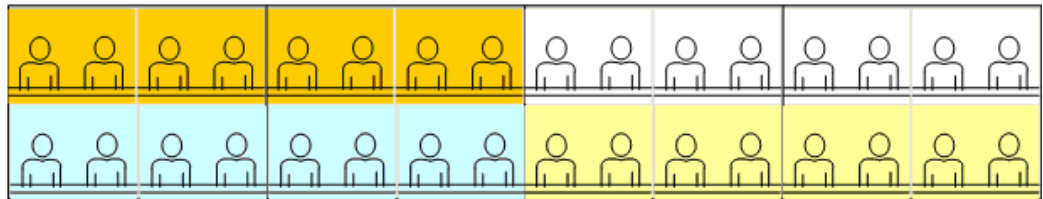
Scenario 3: 3 RPX 400s



Scenario 4: 4 RPX 400s



Scenario 5: 5 RPX 400s

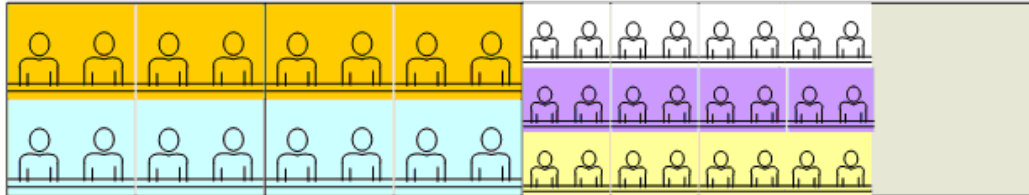


Category G: RPX 400 PARTICIPANTS

Scenario 6: 6 RPX 400s



Note that the participants appearing within the 3x3 personal layout may not be aligned correctly across layout panes. This limitation will be addressed in an upcoming release of the RMX 2000



Scenario 7: 7 RPX 400s



Scenario 8: 8 RPX 400s



Layout scenarios 6 through 10 are available in 720p/30 HD on RMX with MPM+ only. Layout Scenario 11 is available at SD on RMX with MPM+. Layout scenarios 6 through 11 can be used at SD/15fps on RMX with MPM.

Category G: RPX 400 PARTICIPANTS



Scenario 9: 9 RPX 400s 

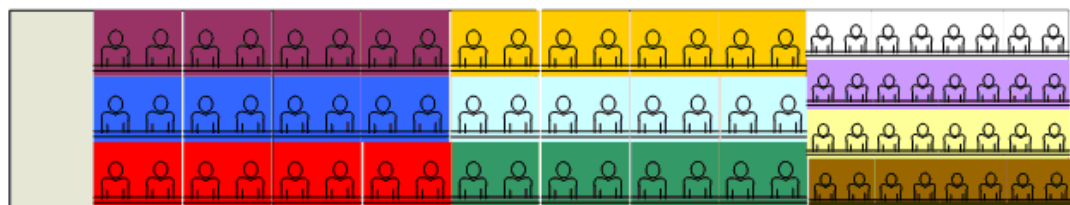
Note that the participants appearing within the 3x3 personal layout may not be aligned correctly across layout panes. This limitation will be addressed in an upcoming release of the RMX 2000



Scenario 10: 10 RPX 400s 



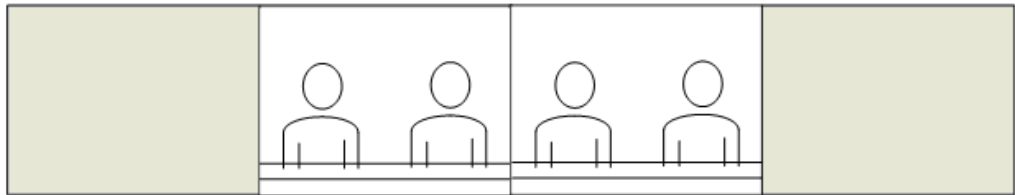
Scenario 11: 11 RPX 400s  



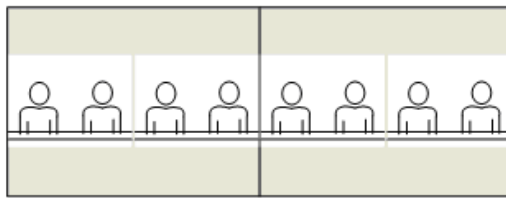
Layout scenarios 6 through 10 are available in 720p/30 HD on RMX with MPM+ only. Layout Scenario 11 is available at SD on RMX with MPM+. Layout scenarios 6 through 11 can be used at SD/15fps on RMX with MPM.

Category H: RPX 200 and 400 PARTICIPANTS

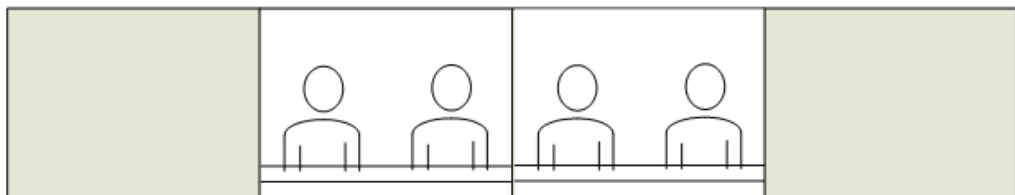
Scenario 1: 1 RPX 400, 1 RPX 200 - RPX 400 view



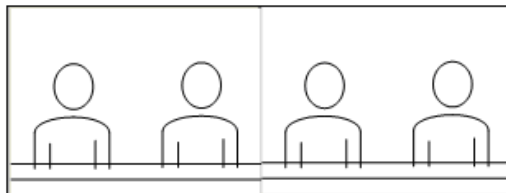
RPX 200 view



Scenario 1a: 1 RPX 400, 1 RPX 200 point to point – no MCU



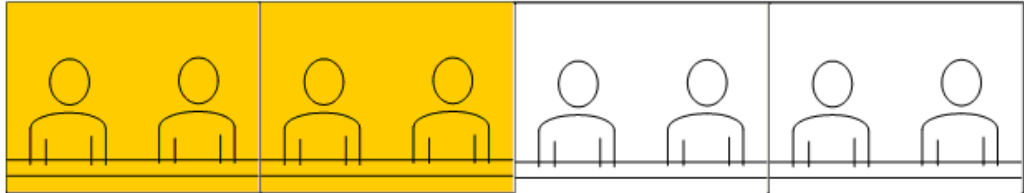
RPX 200 view



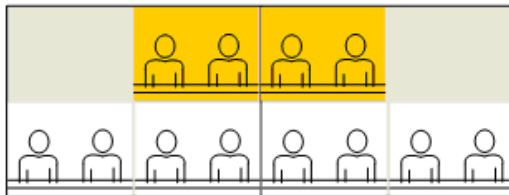
Far left and far right side of RPX 400 room are not seen

Category H: RPX 200 and 400 PARTICIPANTS

Scenario 2: 1 RPX 400, 2 RPX 200s – RPX 400 View

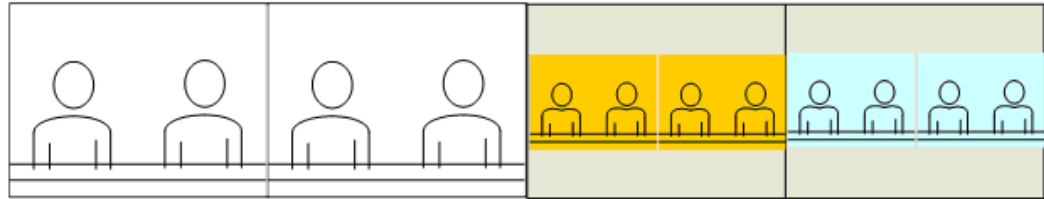


RPX 200 view

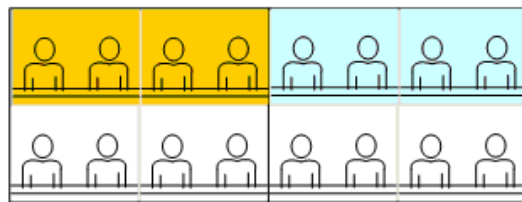


Category H: RPX 200 and 400 PARTICIPANTS

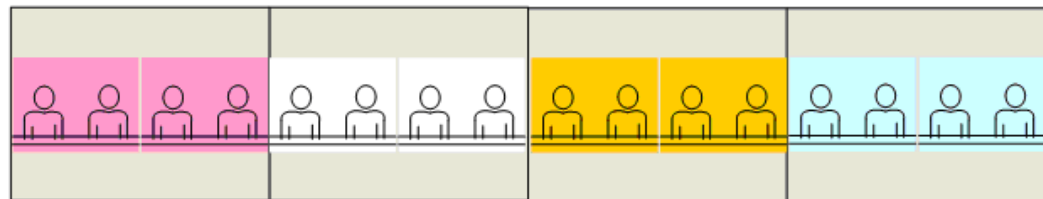
Scenario 3: 1 RPX 400, 3 RPX 200s – RPX 400 View



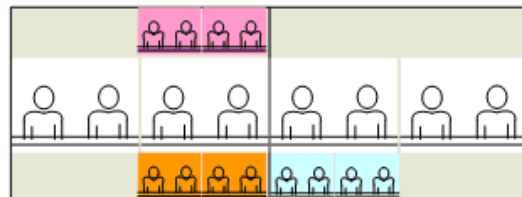
RPX 200 view



Scenario 4: 1 RPX 400, 4 RPX 200s – RPX 400 View

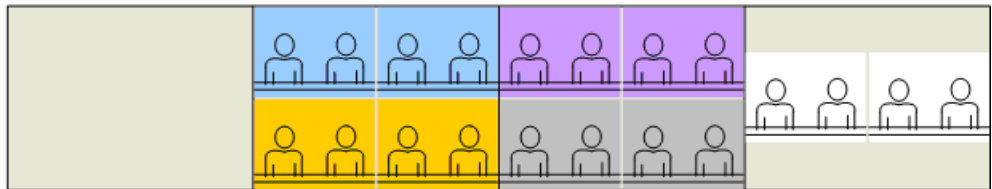
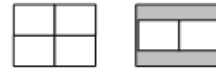


RPX 200 view

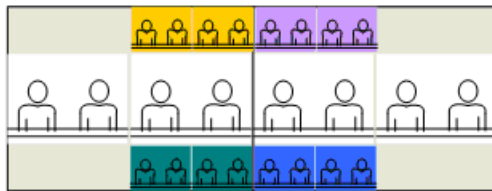


Category H: RPX 200 and 400 PARTICIPANTS

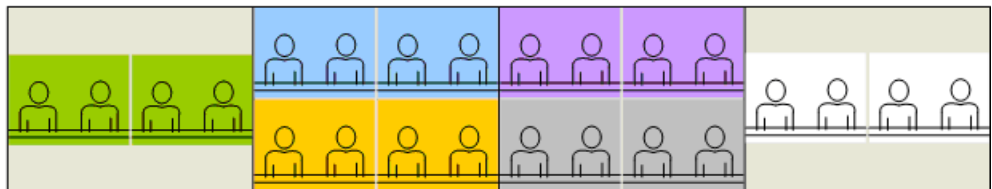
Scenario 5: 1 RPX 400, 5 RPX 200s – 400 view



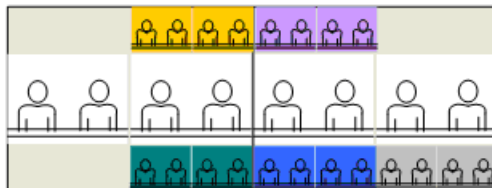
200 view



Scenario 6: 1 RPX 400, 6 RPX 200s – 400 view

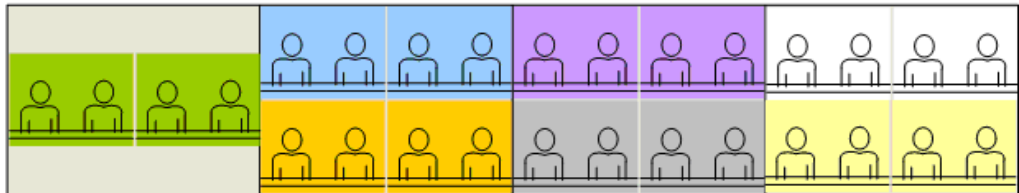
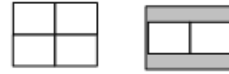


200 view

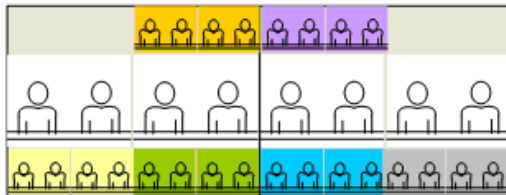


Category H: RPX 200 and 400 PARTICIPANTS

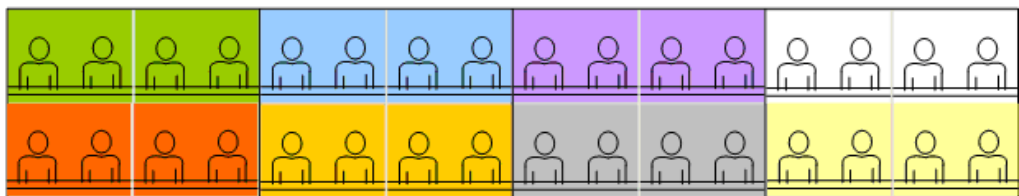
Scenario 7: 1 RPX 400, 7 RPX 200s – 400 view



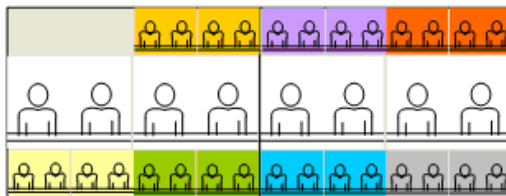
200 view



Scenario 8: 1 RPX 400, 8 RPX 200s – 400 view

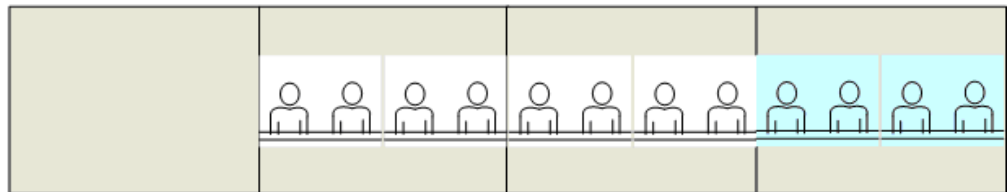


200 view

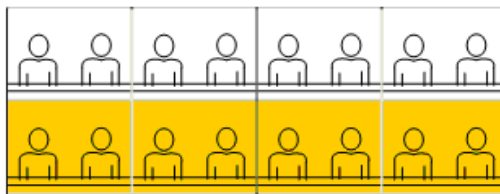


Category H: RPX 200 and 400 PARTICIPANTS

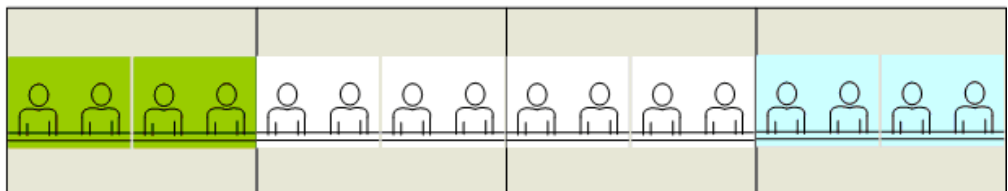
Scenario 9: 2 RPX 400s, 1 RPX 200 - RPX 400 view



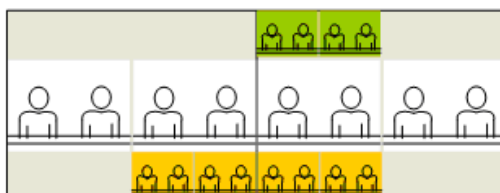
RPX 200 view



Scenario 10: 2 RPX 400s, 2 RPX 200s - RPX 400 View

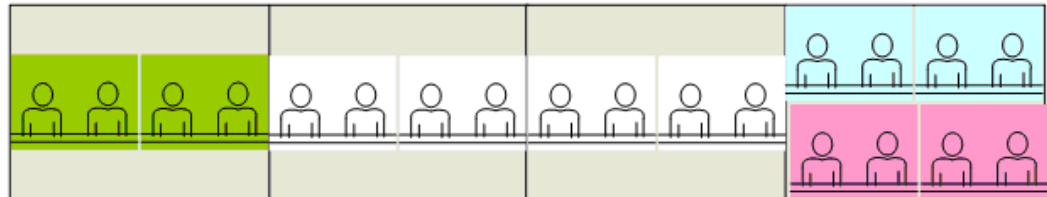


RPX 200 view

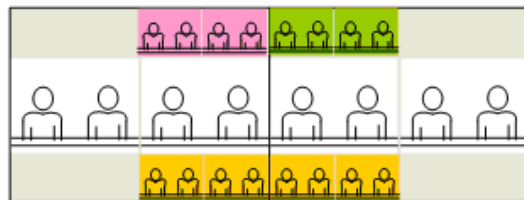


Category H: RPX 200 and 400 PARTICIPANTS

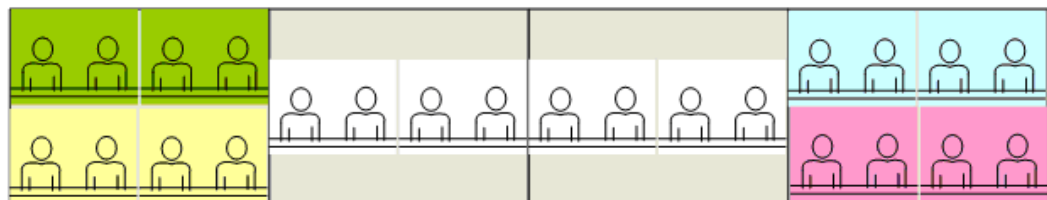
Scenario 11: 2 RPX 400, 3 RPX 200 - RPX 400 view



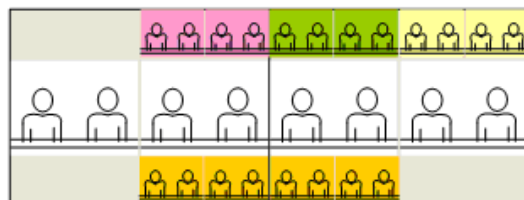
RPX 200 view



Scenario 12: 2 RPX 400s, 4 RPX 200s – RPX 400 View

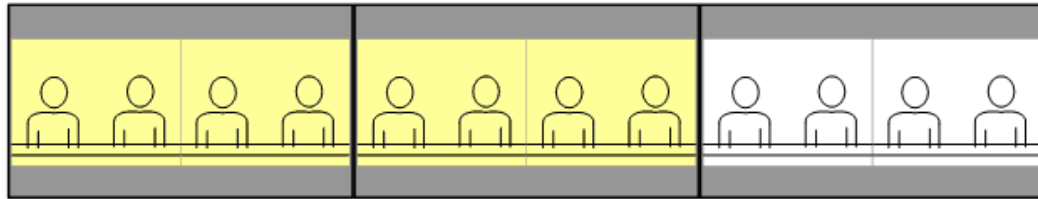


RPX 200 view

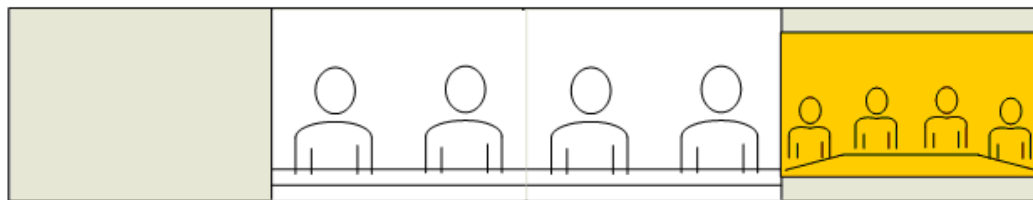


Category I: TPX 306, RPX 200 and RPX 400 PARTICIPANTS

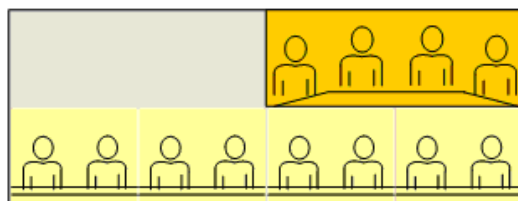
Scenario 1: 1 RPX 400, 1 RPX 200, 1 TPX 306– TPX View



RPX 400 view



RPX 200 view

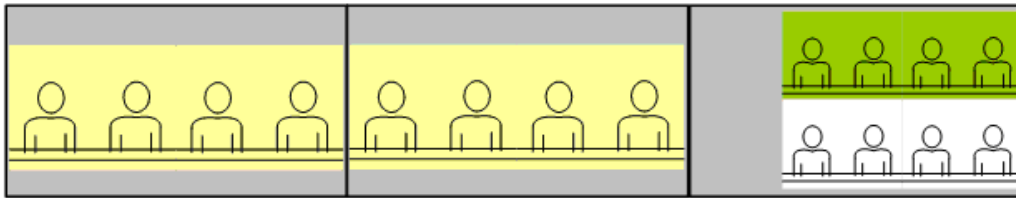


Category I: TPX 306, RPX 200 and RPX 400 PARTICIPANTS

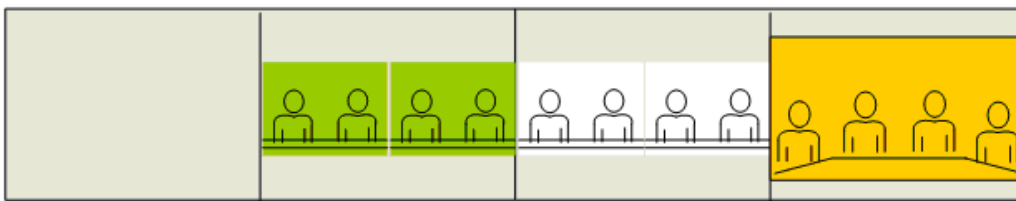
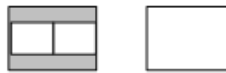
Scenario 2: 1 RPX 400, 2 RPX 200s, 1 TPX 306 – TPX View

4:3	4:3
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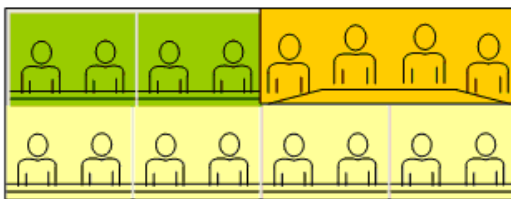
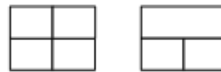
4:3	4:3
4:3	4:3



RPX 400 view

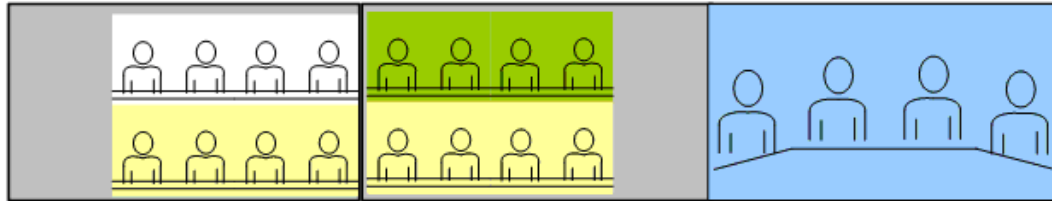


RPX 200 view

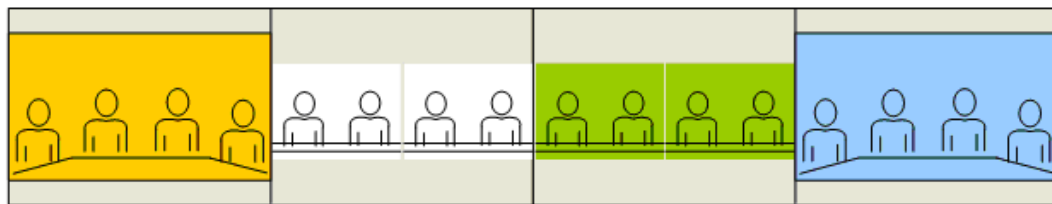


Category I: TPX 306, RPX 200 and RPX 400 PARTICIPANTS

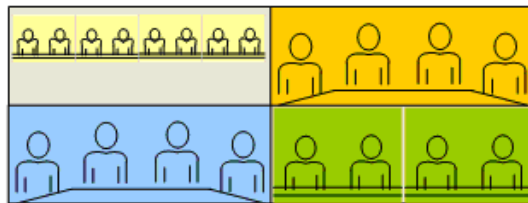
Scenario 3: 1 RPX 400, 2 RPX 200s, 2 TPX 306s – TPX View



RPX 400 view



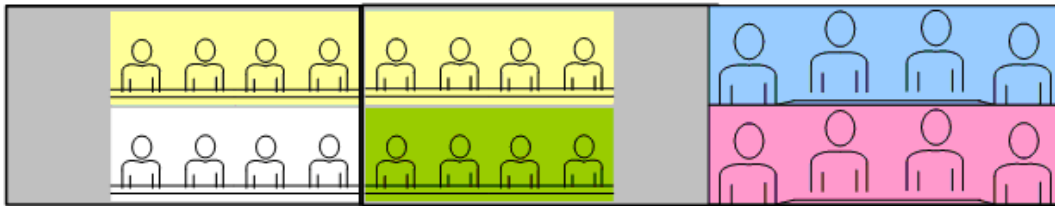
RPX 200 view



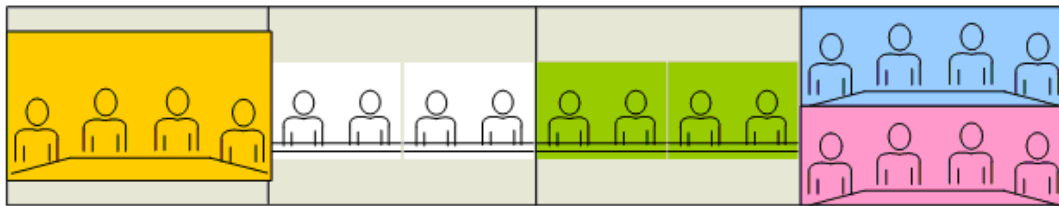
Category I: TPX 306, RPX 200 and RPX 400 PARTICIPANTS

Scenario 4: 1 RPX 400, 2 RPX 200s, 3 TPX 306s – TPX View

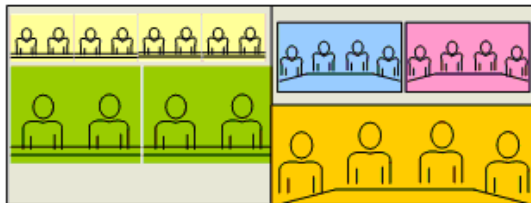
4:3	4:3	4:3	4:3	
4:3	4:3	4:3	4:3	





RPX 400 view





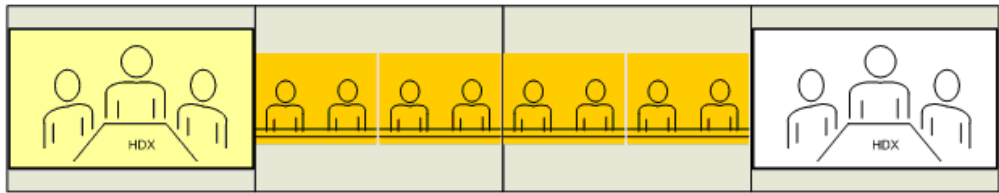
RPX 200 view





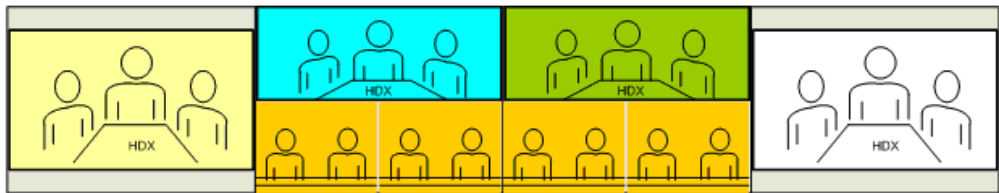
Category J: RPX 400 and HDX PARTICIPANTS




Note the use of a half screen personal layout for displaying HDXs in several of the scenarios below and on subsequent pages. This is chosen for optimal screen usage on the Telepresence systems- however the HDX image will be cropped. Depending on the camera view, some HDX participants may not be seen. If this is the case, use a non cropped personal layout instead (i.e.  instead of ). An example of a non cropped quadrant layout for displaying HDXs is shown in Scenario 5

Scenario 1: 2 RPX 400s, up to 2 HDXs  



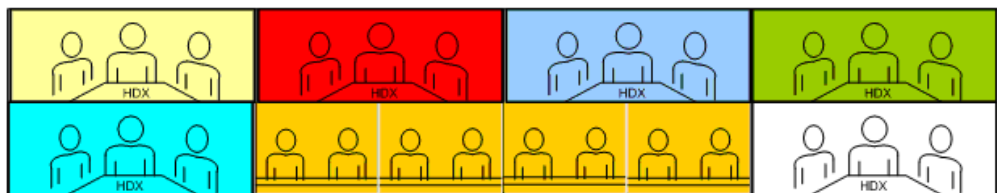
Scenario 2: 2 RPX 400s 3 or 4 HDXs  



Scenario 3: 2 RPX 400s 5 HDXs   

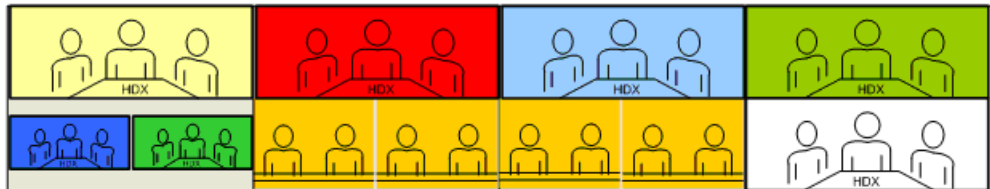
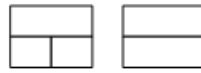


Scenario 4: 2 RPX 400s, 6 HDXs  

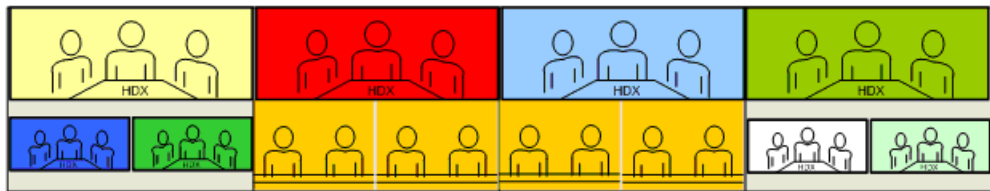


Category J: RPX 400 and HDX PARTICIPANTS

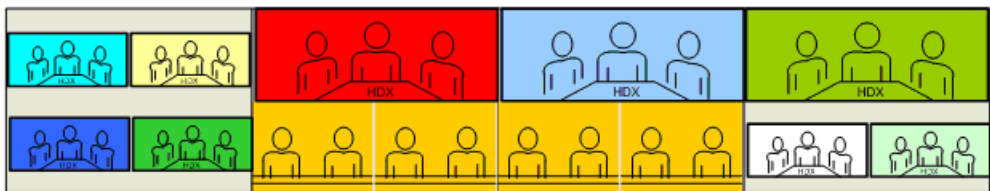
Scenario 5: 2 RPX 400s 7 HDXs



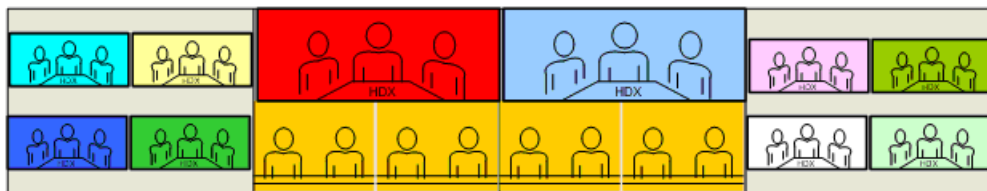
Scenario 6: 2 RPX 400s 8 HDXs




Scenario 7: 2 RPX 400s, 9 HDXs

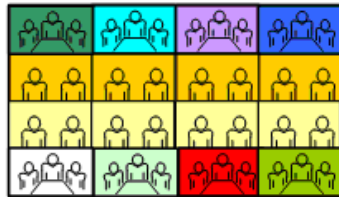


Scenario 8: 2 RPX 400s, 10 HDXs




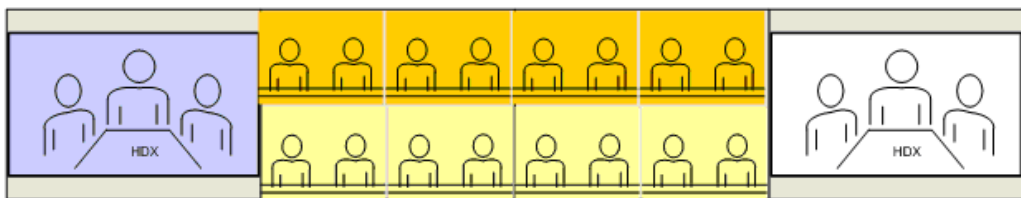
Category J: RPX 400 and HDX PARTICIPANTS


HDX View: Scenarios 1-8 

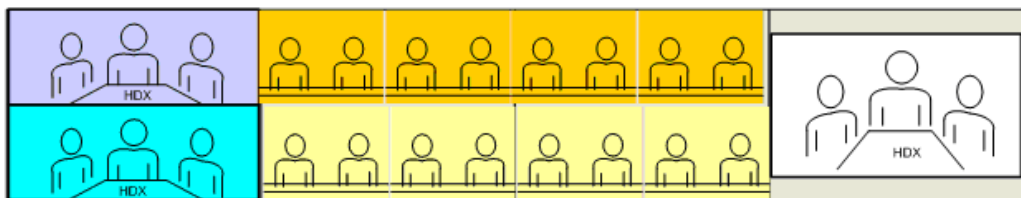



Top and bottom of RPX 400 systems are slightly cropped.
10th HDX not seen in Scenario 8

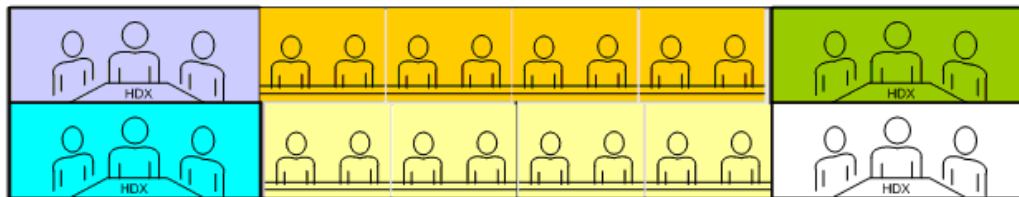
Scenario 9: 3 RPX 400s, up to 2 HDXs 



Scenario 10: 3 RPX 400s, 3 HDXs 

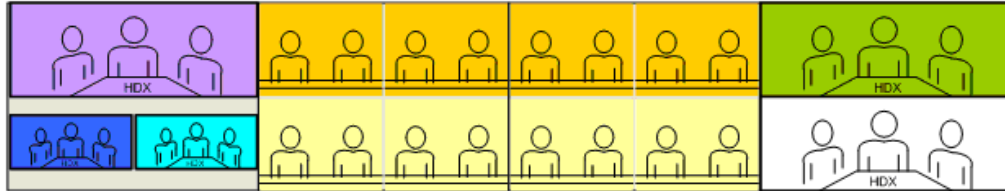
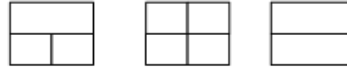


Scenario 11: 3 RPX 400s, 4 HDXs 

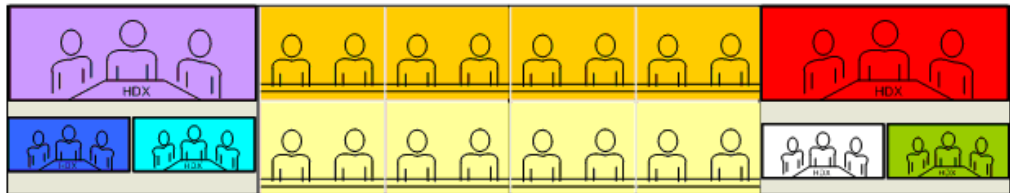


Category J: RPX 400 and HDX PARTICIPANTS

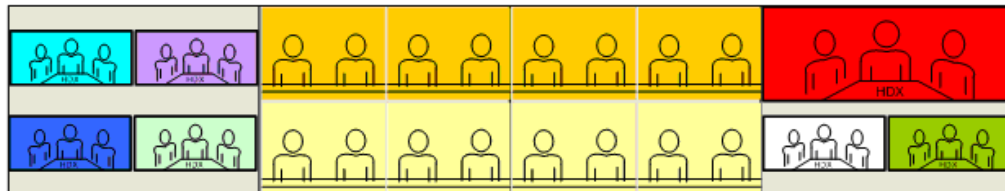
Scenario 12: 3 RPX 400s, 5 HDXs



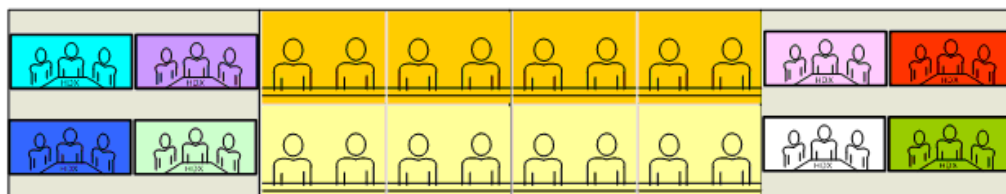
Scenario 13: 3 RPX 400s, 6 HDXs



Scenario 14: 3 RPX 400s 7 HDXs

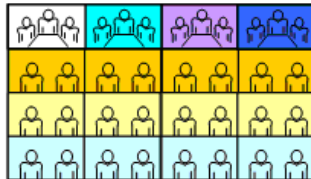


Scenario 15: 3 RPX 400s, 8 HDXs



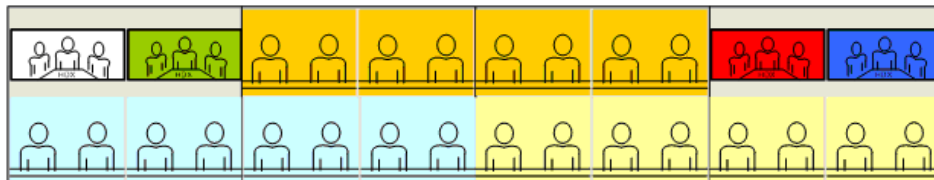
Category J: RPX 400 and HDX PARTICIPANTS

HDX View: Scenarios 9-15



Top and bottom of RPX 400 systems are slightly cropped.
Some HDX participants not seen (can only accommodate up to 5)

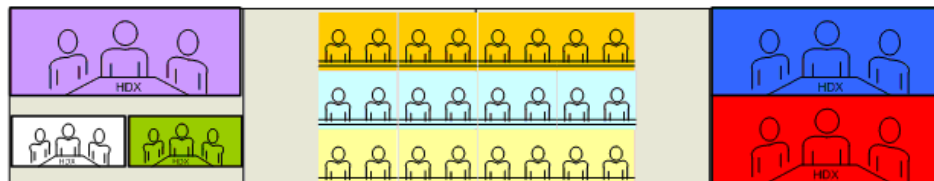
Scenario 16: 4 RPX 400s up to 4 HDXs



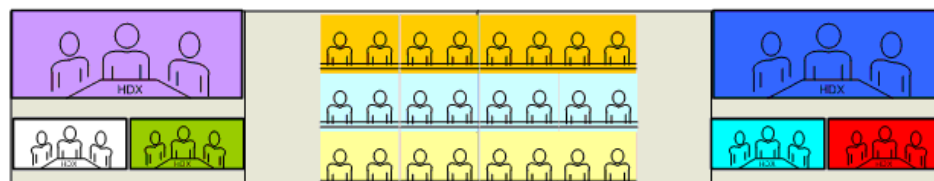
Scenario 17: 4 RPX 400s, 5 HDXs



Note that the participants appearing within the 3x3 personal layout may not be aligned correctly across layout panes. This limitation will be addressed in an upcoming release of the RMX 2000



Scenario 18: 4 RPX 400s, 6 HDXs




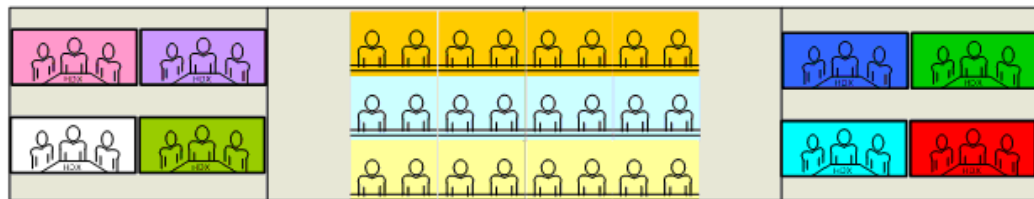
Layout scenarios 17 through 20 are available in 720p HD on RMX with MPM+ only. Layout scenarios 17 through 20 can be used at SD/15fps on RMX with MPM.


Category J: RPX 400 and HDX PARTICIPANTS

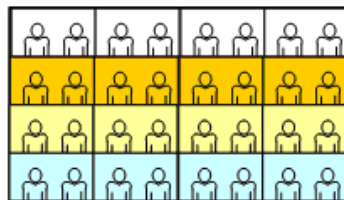
Scenario 19: 4 RPX 400s, 7 HDXs 



Scenario 20: 4 RPX 400s, 8 HDXs 



HDX View: 4 RPX 400s – Scenarios 16 to 20 

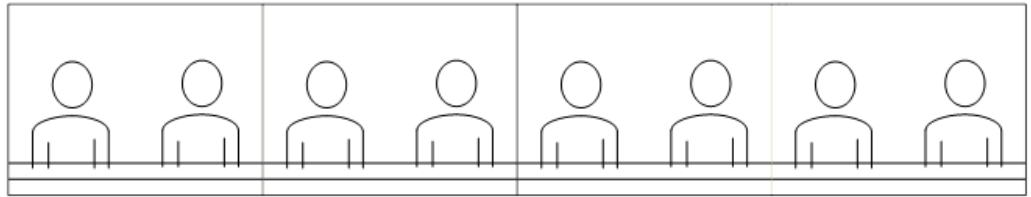


Top and bottom of RPX 400 systems are slightly cropped.
Other HDX participants not seen

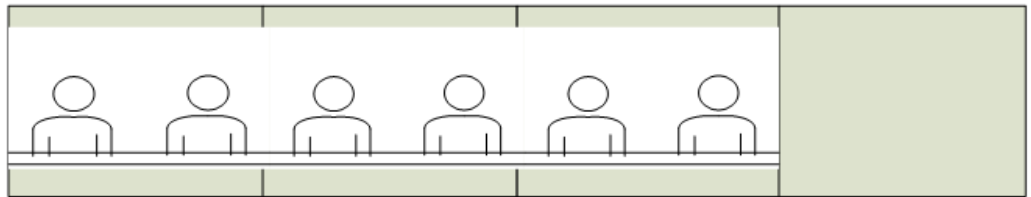
Layout scenarios 17 through 20 are available in 720p HD on RMX with MPM+ only. Layout scenarios 17 through 20 can be used at SD/15fps on RMX with MPM.

Category K: Voice Activated Room Switching (VARs) Layouts

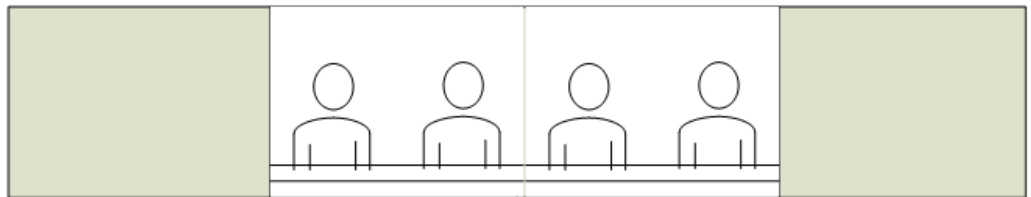
Scenario 1a: RPX 400 speaker viewed on RPX 400



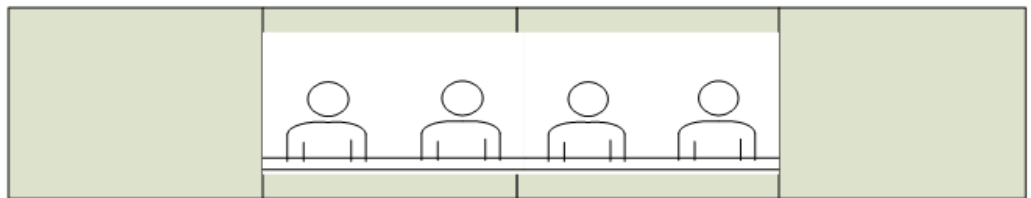
Scenario 1b: TPX 306 speaker viewed on RPX 400



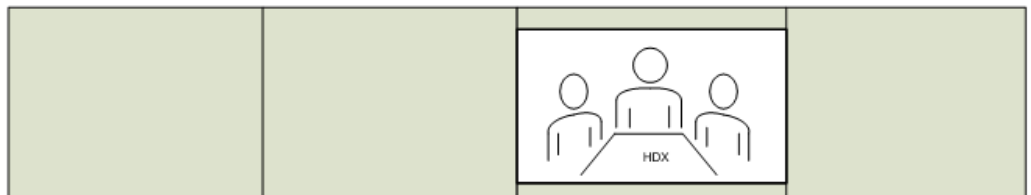
Scenario 1c: RPX 200 speaker viewed on RPX 400



Scenario 1d: TPX 204 speaker viewed on RPX 400

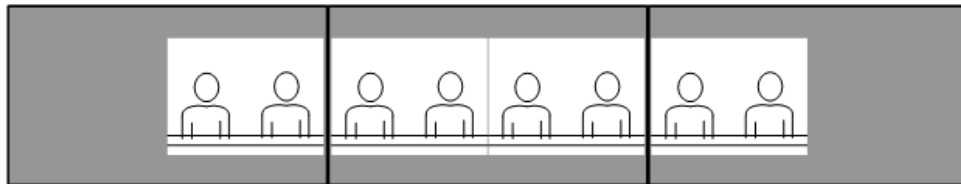


Scenario 1e: HDX speaker viewed on RPX 400

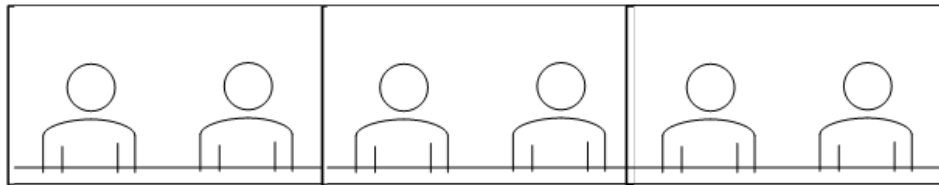


Category K: Voice Activated Room Switching (VARS) Layouts

Scenario 2a: RPX 400 speaker viewed on TPX 306

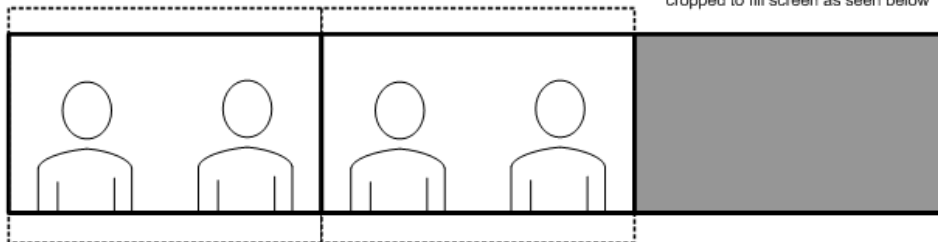


Scenario 2b: TPX 306 speaker viewed on TPX 306

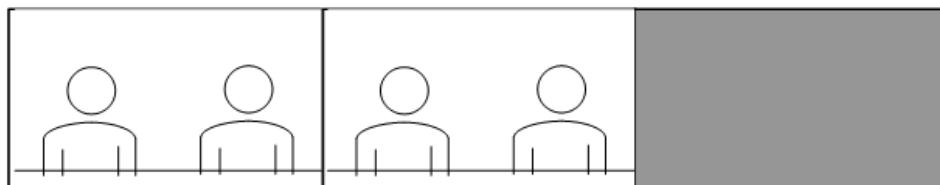


Scenario 2c: RPX 200 speaker viewed on TPX 306

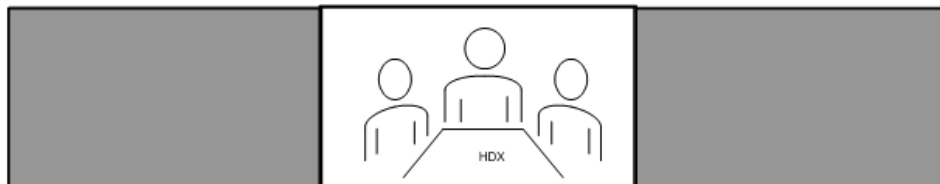
RPX participant video is zoomed and cropped to fill screen as seen below



Scenario 2d: TPX 204 speaker viewed on TPX 306

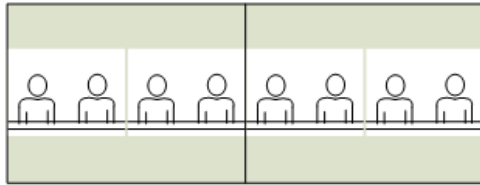


Scenario 2e: HDX speaker viewed on TPX 306

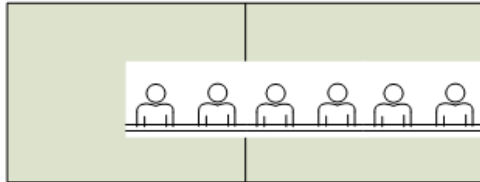


Category K: Voice Activated Room Switching (VARS) Layouts

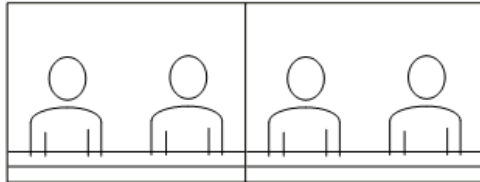
Scenario 3a: RPX 400 speaker viewed on RPX 200



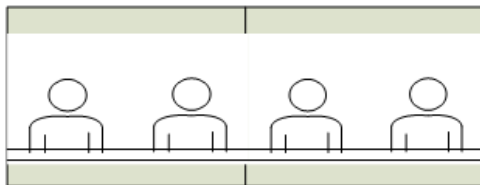
Scenario 3b: TPX 306 speaker viewed on RPX 200



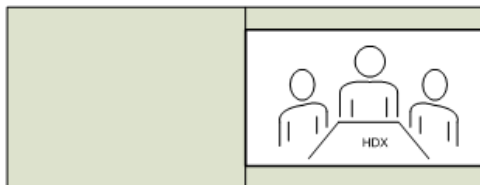
Scenario 3c: RPX 200 speaker viewed on RPX 200



Scenario 3d: TPX 204 speaker viewed on RPX 200

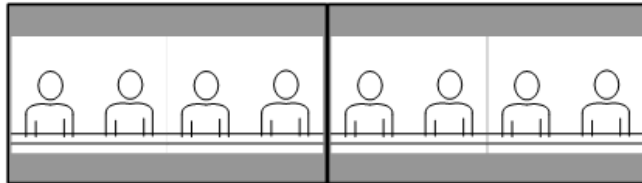


Scenario 3e: HDX speaker viewed on RPX 200

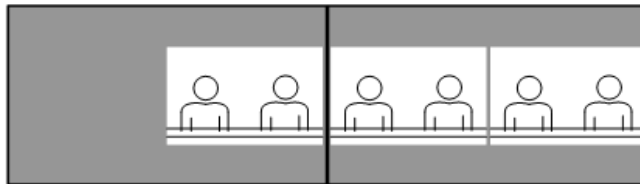


Category K: Voice Activated Room Switching (VARS) Layouts

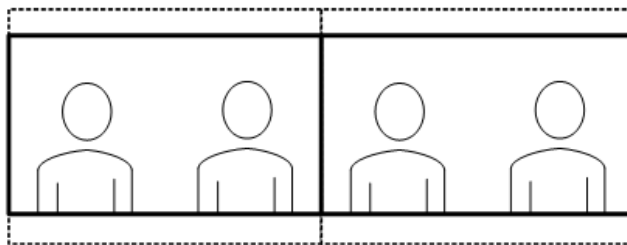
Scenario 4a: RPX 400 speaker viewed on TPX 204



Scenario 4b: TPX 306 speaker viewed on TPX 204

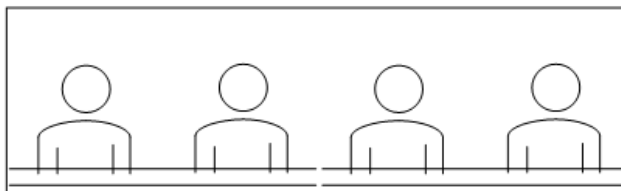


Scenario 4c: RPX 200 speaker viewed on TPX 204



RPX participant video is zoomed and cropped to fill screen as seen below

Scenario 4d: TPX 204 speaker viewed on TPX 204

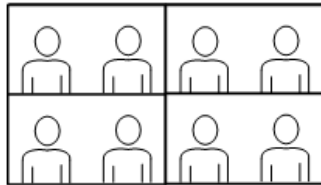


Scenario 4e: HDX speaker viewed on TPX 204



Category K: Voice Activated Room Switching (VARS) Layouts

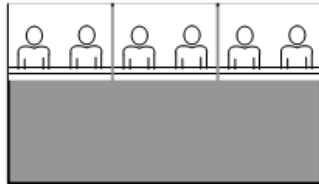
Scenario 5a: RPX 400 speaker viewed on HDX



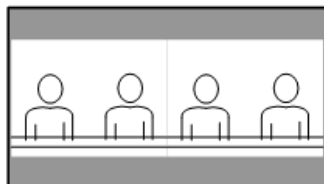
Left half of RPX 400 room on top of screen,
right half of RPX 400 room on bottom of screen

RPX participant video is zoomed and
cropped to fill screen as seen below

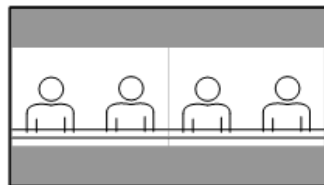
Scenario 5b: TPX 306 speaker viewed on HDX



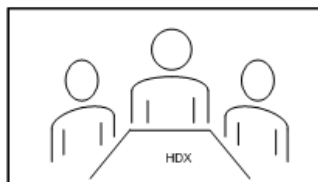
Scenario 5c: RPX 200 speaker viewed on HDX



Scenario 5d: TPX 204 speaker viewed on HDX



Scenario 5e: HDX speaker viewed on HDX



Manual Video Layout Framing Examples

This appendix illustrates sample personal layouts for multipoint conferences that you can manually frame. However, Polycom recommends that you use the Multipoint Layout Application to automatically frame multipoint conferences.

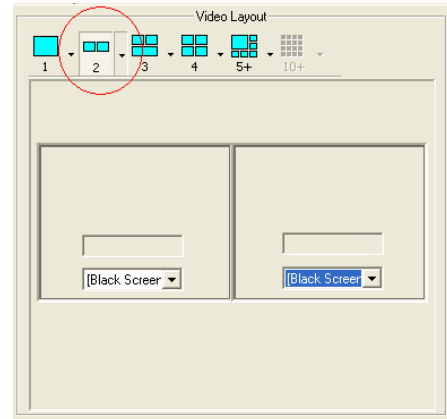
In most cases, you should follow these guidelines:

- For multipoint conferences with only RPX suites: Either the two site side-by-side window layout option or the quad window layout option are typically suitable for framing the Suite.
- For multipoint conferences with both RPX and TPX suites in the same conference: Special window layout options are required, and these layouts are only available with RMX 4000 and RMX 2000.

Example one: Multipoint meeting with three RPX HD 200 Series suites

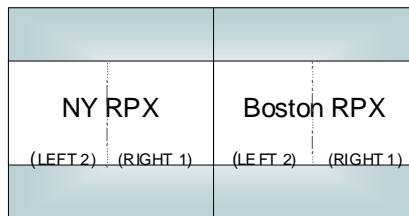
► Site records involved:

- RPX 200 Boston 140 CommAve 1
- RPX 200 Boston 140 CommAve 2
- RPX 200 LA Tower 1
- RPX 200 LA Tower 2
- RPX 200 NY MadAve 10th FL 1
- RPX 200 NY MadAve 10th FL 2



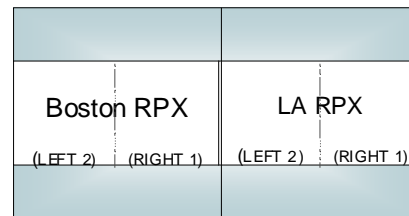
- Once all sites are connected, each site must be manually framed as shown on the next slide using the MCU's two site side-by-side window layout option

Example one: Site framing for three RPX HD 200 Series suites



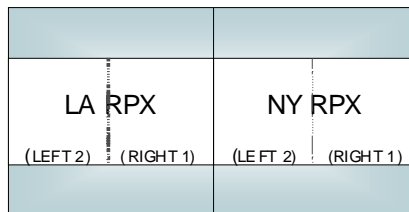
LA LEFT

LA RIGHT



NY LEFT

NY RIGHT



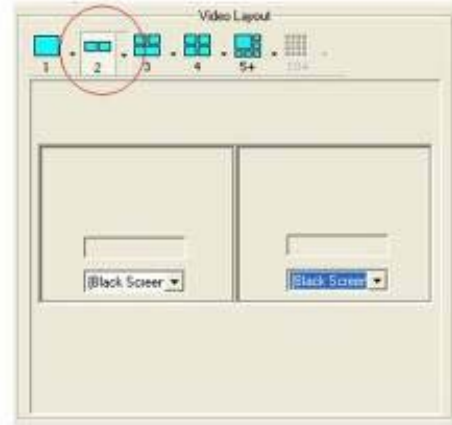
Boston LEFT

Boston RIGHT

Example Two: Multipoint meeting with three RPX HD 400 Series suites

► Site records involved:

- RPX 400 Munich 1
- RPX 400 Munich 2
- RPX 400 Munich 3
- RPX 400 Munich 4
- RPX 400 Geneva 1
- RPX 400 Geneva 2
- RPX 400 Geneva 3
- RPX 400 Geneva 4
- RPX 400 Paris 1
- RPX 400 Paris 2
- RPX 400 Paris 3
- RPX 400 Paris 4



- **Once all sites are connected, each site must be manually framed as shown on the next slide using the MCU's two-site side by side window layout option**

Example Two: Site framing for three RPX HD 400 Series suites

Geneva RPX (4) (2)	Geneva RPX (1) (3)	Paris RPX (4) (2)	Paris RPX (1) (3)

Munich Left Munich Center Left Munich Center Right Munich Right

Paris RPX (4) (2)	Paris RPX (1) (3)	Munich RPX (4) (2)	Munich RPX (1) (3)

Geneva Left Geneva Center Left Geneva Center Right Geneva Right

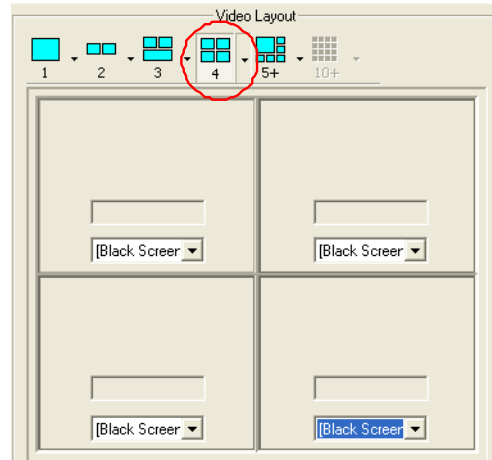
Munich RPX (4) (2)	Munich RPX (1) (3)	Geneva RPX (4) (2)	Geneva RPX (1) (3)

Paris Left Paris Center Left Paris Center Right Paris Right

Example Three: Multipoint meeting with three RPX HD 200 Series suites and two traditional videoconferencing systems

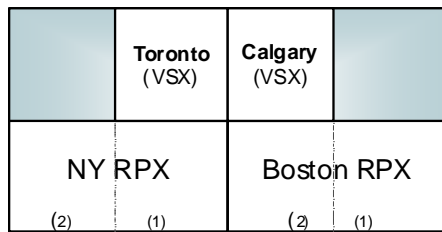
► Site records involved:

- RPX 200 Boston 140 CommAve 1
- RPX 200 Boston 140 CommAve 2
- RPX 200 LA Tower 1
- RPX 200 LA Tower 2
- RPX 200 NY MadAve 10th FL 1
- RPX 200 NY MadAve 10th FL 2
- VSX 7000 Toronto
- VSX 3000 Calgary

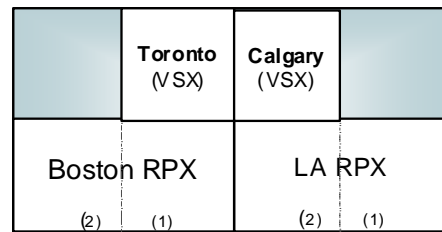


- Once all sites are connected, each site must be manually framed as shown on the next slide using the MCU quad window layout option

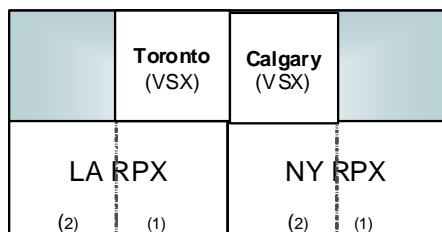
Example Three: Site framing for three RPX HD 200 Series suites and two traditional videoconferencing systems



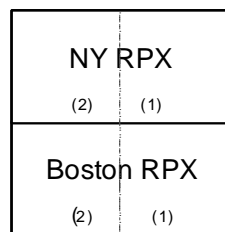
LA LEFT **LA RIGHT**



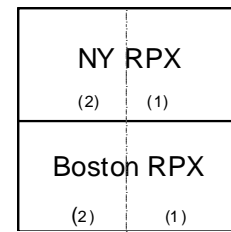
NY LEFT **NY RIGHT**



Boston LEFT **Boston RIGHT**



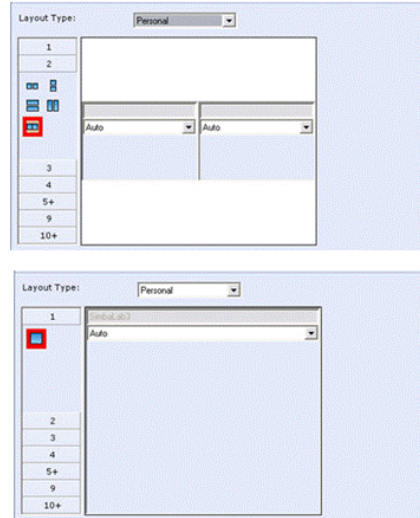
Toronto
(Calgary & LA not shown by customer choice)



Calgary
(Toronto & LA not shown by customer choice)

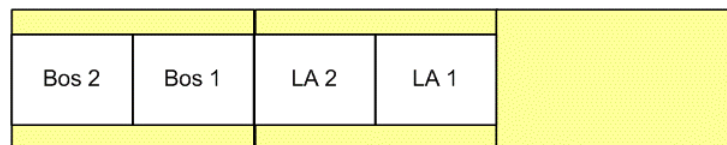
Example Four: Multipoint meeting with two RPX HD 200 Series suites and one TPX HD 306 system

- ▶ Site records involved:
 - RPX 200 Boston 140 CommAve 1
 - RPX 200 Boston 140 CommAve 2
 - RPX 200 LA Tower 1
 - RPX 200 LA Tower 2
 - TPX 306 NY MadAve 10th FL 1
 - TPX 306 NY MadAve 10th FL 2
 - TPX 306 NY MadAve 10th FL 3

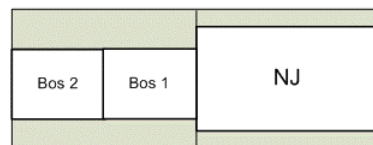


- Once all sites are connected, each site must be manually framed as shown on the next slide using the window layout options shown

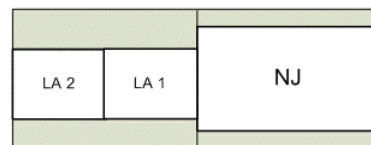
Example Four: Site framing for two RPX HD 200 Series suites and one TPX HD 306 system



NJ 2 NJ 1 NJ 3



LA 2 LA 1



Bos 2 Bos 1

