

Technical Bulletin 62473

Customizing the Display Background on Your Polycom® SoundPoint® IP Phone



This technical bulletin provides end users, system administrators, and service providers with step-by-step instructions on how to customize the background on Polycom® SoundPoint® IP phones.

This information applies to SoundPoint IP 450, 550, 560, 650, and 670 phones running SIP software version 3.0.0 or later. Support for JPEG images was added in SIP software version 3.0.2RevB.

Introduction to Custom Phone Backgrounds

The Polycom® SoundPoint® IP 450, 550, 560, 650, and 670 phones all support custom backgrounds. As a system administrator, you can set the background on the phones in your network to a custom JPEG or BMP image or a solid color by making changes to the configuration files. This enables you to unify the appearance of the phone backgrounds or display a custom image such as a digital photo of a product or brand.



For information on how to configure customized background images and logos on the Polycom® VVX® 1500 phone, refer to Technical Bulletin 62470 *Customizing the Display Background on Your Polycom® VVX® 1500 Phone Business Media Phone*, available from http://www.polycom.com/support/voice/soundpoint_ip/VoIP_Technical_Bulletins_pub.html

The topics include:

- [Choosing a Custom Background Image](#)
- [Customizing the Background of Your SoundPoint IP Phone](#)

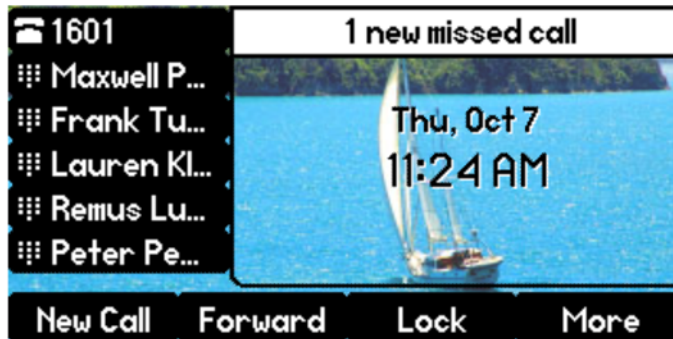
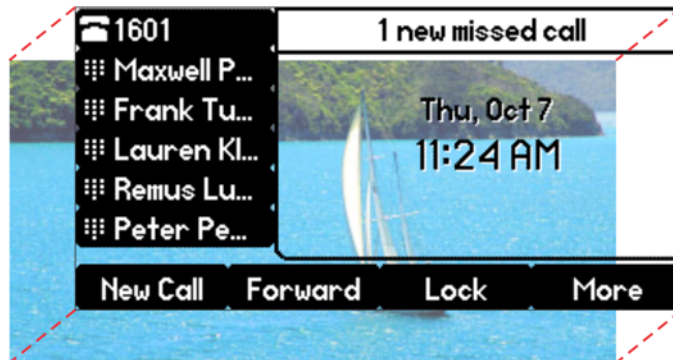
Choosing a Custom Background Image

Ideally, the image you intend to add as your background should match the screen size of the phone. Since the idle screen includes information that obscures part of your image, take care to choose one with a composition suitable for your phone as follows:

- The user interface elements of the SoundPoint IP 450 phone will block your image as shown in the next two figures. Choose your image accordingly. The maximum image size is 250 x 116 pixels.



- The user interface elements of the SoundPoint IP 550, 560, 650 and 670 phones will block your image as shown in the next two figures. Choose your image accordingly. The maximum image size is 320 x 160 pixels.



- For Expansion Modules connected to SoundPoint IP 650 or 670 phones, choose a simple image to avoid overlapping by long contact names in the speed dial list. The background applied in the following figure is a color gradient that matches the sailboat background shown in the preceding example. Note that the maximum size of the background image is 160 x 320 pixels.



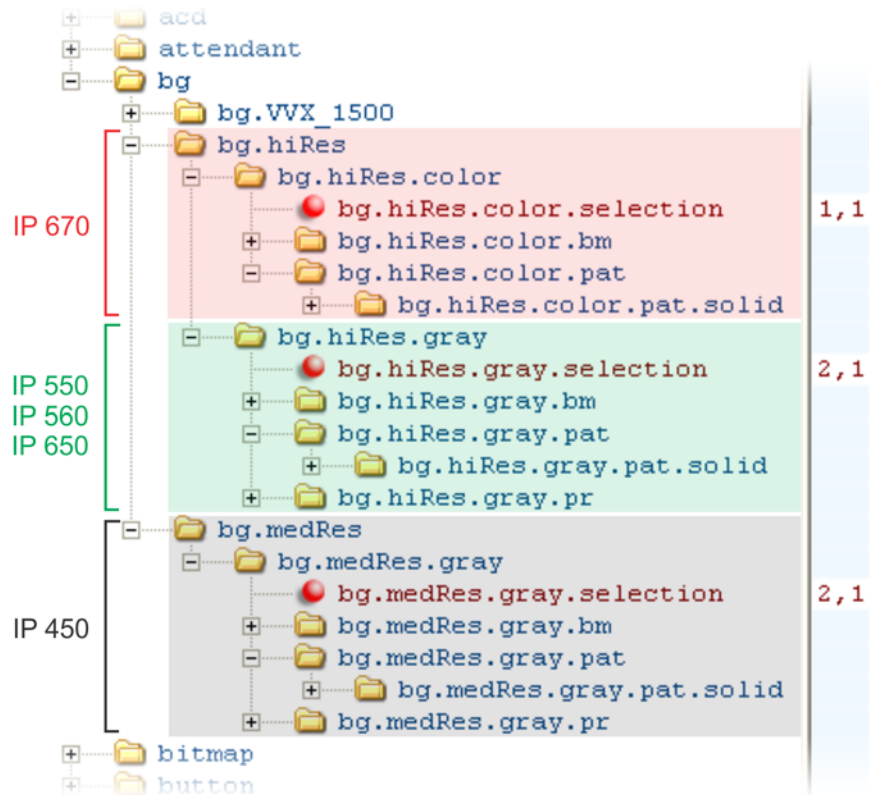
Customizing the Background of Your SoundPoint IP Phone

With a few basic configuration changes, you can add custom backgrounds to select SoundPoint IP phones. You can also change the color of the phone's soft keys and menus to match your custom background.

The following figure shows the background parameters in the **features.cfg** configuration file used in Polycom UC Software version 3.3.0 or later (located in the *Config* folder of your UC Software download package). To add your own custom JPEG or BMP image as the background, you must replace one of the existing background file names with the file name of your image (including the extension).



If you are running SIP software version 3.2.x or earlier, the background configuration parameters in the figure shown next will be located under *<backgrounds>* in the **sip.cfg** configuration file.



The **.selection** parameter specifies which type of background (w) and index of that type (x) is selected when the phone reboots. The parameter has a value of *w,x* where *w* and *x* can be the following integers:

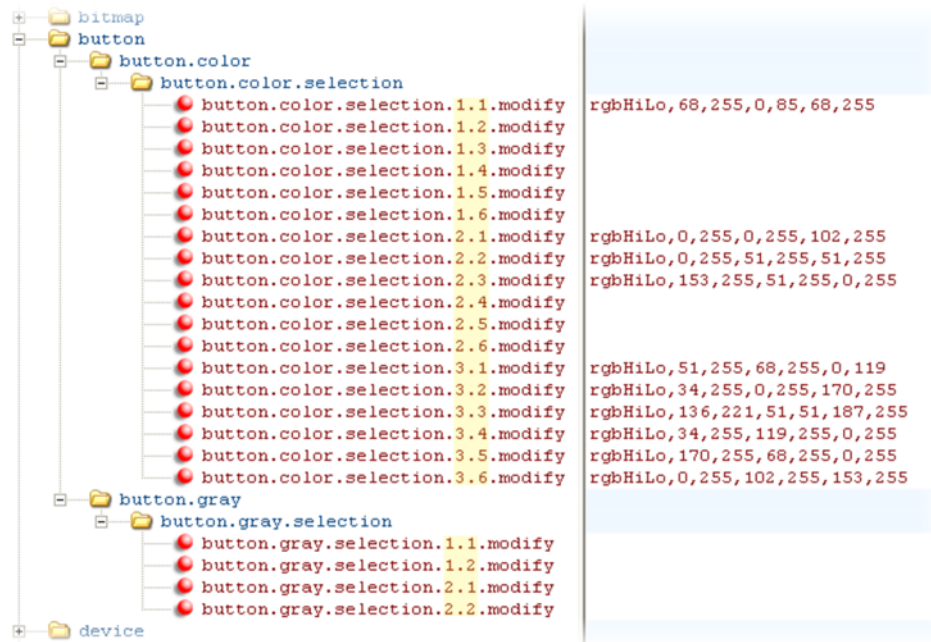
w	Background	x	Index
1	Default	1	The factory default background varies by phone model.
2	Solid Background	1, 2, 3, or 4	Refer to Using a Custom Solid Background on page 8 to see the parameters for each of the four backgrounds.
3	Image Background (.jpg or .bmp image)	1, 2, 3, 4, 5, or 6	Refer to Using a Custom Background Image on page 6 to see the parameters for each of the six images.

You may also apply a custom background to your phone by navigating to **Menu > Settings > Basic > Preferences > Backgrounds** and choosing from the available selection.

Setting Custom Soft Key and Menu Colors

With a few basic configuration changes, you can modify the color of the soft keys and menu items on your SoundPoint IP phone.

The following figure shows the button parameters in the **features.cfg** configuration file used in Polycom UC Software version 3.3.0 or later (located in the *Config* folder of your UC Software download package).

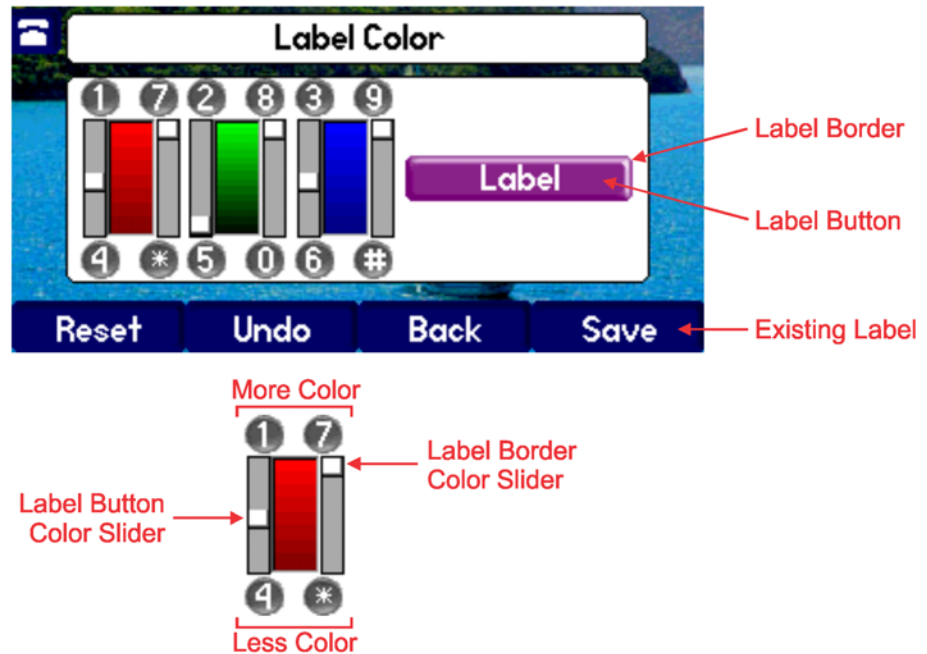


Each *.selection* parameter has a value *rgbHiLo,R1,R2,G1,G2,B1,B2*.

R1,G1, and *B1* are the RGB (red, green, blue) parameters of the label. Each color can have a value between 0 (no color) and 255 (full color). If all the values are 0, the button label will be set to black. At least one value must be 186 or less. To obtain a light color, set two of these values to 255 and the other to 186.

R2,G2, and *B2* are the RGB (red, green, blue) parameters of label border. Each color can be set to a value between 0 and 255.

You may also choose a custom label color for your phone by navigating to **Menu > Settings > Basic > Preferences > Label Color** and using the dial pad keys to move the color slider controls up or down. Each color has two sliders. The one on the left affects the label button color and the one on the right affects the label border color, as shown next.



Using a Custom Background Image

Each phone has six background images, as labeled in the figure shown next. The default images are *Leaf* (1), *Sailboat* (2), *Beach* (3), *Palm* (4), *Jellyfish* (5), and *Mountain* (6). To customize one or more of the images, you must modify the appropriate parameter values in the **features.cfg** file. The following figure shows the *.bm* background image parameters contained in the **features.cfg** file for the SoundPoint IP 450, IP 550/560/650, and IP 670 phones:

	Parameters	Values	
IP 670	bg.hiRes.color.bm		
	1	bg.hiRes.color.bm.1.em.name	LeafEM.jpg
		bg.hiRes.color.bm.1.name	Leaf.jpg
	2	bg.hiRes.color.bm.2.em.name	SailboatEM.jpg
		bg.hiRes.color.bm.2.name	Sailboat.jpg
	3	bg.hiRes.color.bm.3.em.name	BeachEM.jpg
		bg.hiRes.color.bm.3.name	Beach.jpg
	4	bg.hiRes.color.bm.4.em.name	PalmEM.jpg
		bg.hiRes.color.bm.4.name	Palm.jpg
	5	bg.hiRes.color.bm.5.em.name	JellyfishEM.jpg
		bg.hiRes.color.bm.5.name	Jellyfish.jpg
	6	bg.hiRes.color.bm.6.em.name	MountainEM.jpg
		bg.hiRes.color.bm.6.name	Mountain.jpg
IP 550 IP 560 IP 650	bg.hiRes.gray.bm		
	1	bg.hiRes.gray.bm.1.adj	0
		bg.hiRes.gray.bm.1.em.name	LeafEM.jpg
		bg.hiRes.gray.bm.1.name	Leaf.jpg
	2	bg.hiRes.gray.bm.2.adj	-3
		bg.hiRes.gray.bm.2.em.name	SailboatEM.jpg
		bg.hiRes.gray.bm.2.name	Sailboat.jpg
	3	bg.hiRes.gray.bm.3.adj	0
		bg.hiRes.gray.bm.3.em.name	BeachEM.jpg
		bg.hiRes.gray.bm.3.name	Beach.jpg
	4	bg.hiRes.gray.bm.4.adj	-3
		bg.hiRes.gray.bm.4.em.name	PalmEM.jpg
		bg.hiRes.gray.bm.4.name	Palm.jpg
	5	bg.hiRes.gray.bm.5.adj	-2
		bg.hiRes.gray.bm.5.em.name	JellyfishEM.jpg
		bg.hiRes.gray.bm.5.name	Jellyfish.jpg
	6	bg.hiRes.gray.bm.6.adj	0
		bg.hiRes.gray.bm.6.em.name	MountainEM.jpg
	bg.hiRes.gray.bm.6.name	Mountain.jpg	
IP 450	bg.medRes.gray.bm		
	1	bg.medRes.gray.bm.1.adj	0
		bg.medRes.gray.bm.1.name	Leaf256x116.jpg
	2	bg.medRes.gray.bm.2.adj	-3
		bg.medRes.gray.bm.2.name	Sailboat256x116.jpg
	3	bg.medRes.gray.bm.3.adj	0
		bg.medRes.gray.bm.3.name	Beach256x116.jpg
	4	bg.medRes.gray.bm.4.adj	-3
		bg.medRes.gray.bm.4.name	Palm256x116.jpg
	5	bg.medRes.gray.bm.5.adj	-2
		bg.medRes.gray.bm.5.name	Jellyfish256x116.jpg
	6	bg.medRes.gray.bm.6.adj	0
bg.medRes.gray.bm.6.name		Mountain256x116.jpg	

The *.name* parameter is the name of the phone's background image. Its value is the file name associated with your custom image (including the *.bmp* or *.jpg* extension). This file name will also be displayed in the phone's background selection menu. Be sure to choose a descriptive name.

The *.em.name* entry is available for the SoundPoint IP 650 and 670 phones, which support expansion modules. The associated value is the file name of the expansion module's background image (including the *.bmp* or *.jpg* extension). The expansion module's background image is not listed in the phone's background selection menu. Instead, it is automatically selected with the phone's background.

The *.adj* parameter represents the brightness adjustment offset applied to grayscale background images. This may be set to an integer value between -8 (to darken the background) and 3 (to lighten the background).

Using a Custom Solid Background

By default, each phone has two or three solid background colors as labeled in the figure shown next. If you wish, you can configure up to four backgrounds per phone by adding a third or fourth set of *.solid.n* parameters where *n* is 3 or 4. To customize or add a solid background, you must modify existing values or add new values for the parameters in the **features.cfg** file. The figure shows the solid background parameters listed in the **features.cfg** file for the SoundPoint IP 450, 550/560/650, and IP 670 phones.

	Parameters	Values	
IP 670	bg.hiRes.color.pat		
	bg.hiRes.color.pat.solid		
	1 [	<ul style="list-style-type: none"> bg.hiRes.color.pat.solid.1.blue 249 bg.hiRes.color.pat.solid.1.green 207 bg.hiRes.color.pat.solid.1.name Light Blue bg.hiRes.color.pat.solid.1.red 151 
	2 [	<ul style="list-style-type: none"> bg.hiRes.color.pat.solid.2.blue 148 bg.hiRes.color.pat.solid.2.green 148 bg.hiRes.color.pat.solid.2.name Teal bg.hiRes.color.pat.solid.2.red 73 
	3 [	<ul style="list-style-type: none"> bg.hiRes.color.pat.solid.3.blue 69 bg.hiRes.color.pat.solid.3.green 157 bg.hiRes.color.pat.solid.3.name Tan bg.hiRes.color.pat.solid.3.red 245 
	bg.hiRes.gray.pat		
	bg.hiRes.gray.pat.solid		
	1 [	<ul style="list-style-type: none"> bg.hiRes.gray.pat.solid.1.blue 255 bg.hiRes.gray.pat.solid.1.green 255 bg.hiRes.gray.pat.solid.1.name White bg.hiRes.gray.pat.solid.1.red 255 
	2 [	<ul style="list-style-type: none"> bg.hiRes.gray.pat.solid.2.blue 160 bg.hiRes.gray.pat.solid.2.green 160 bg.hiRes.gray.pat.solid.2.name Light Gray bg.hiRes.gray.pat.solid.2.red 160 
	bg.hiRes.gray.pr		
	1 [	<ul style="list-style-type: none"> bg.hiRes.gray.pr.1.adj -3 
	2 [	<ul style="list-style-type: none"> bg.hiRes.gray.pr.2.adj 0 
IP 550 IP 560 IP 650	bg.hiRes.gray.pat		
	bg.hiRes.gray.pat.solid		
	1 [	<ul style="list-style-type: none"> bg.hiRes.gray.pat.solid.1.blue 255 bg.hiRes.gray.pat.solid.1.green 255 bg.hiRes.gray.pat.solid.1.name White bg.hiRes.gray.pat.solid.1.red 255 
	2 [	<ul style="list-style-type: none"> bg.hiRes.gray.pat.solid.2.blue 160 bg.hiRes.gray.pat.solid.2.green 160 bg.hiRes.gray.pat.solid.2.name Light Gray bg.hiRes.gray.pat.solid.2.red 160 
	bg.hiRes.gray.pr		
	1 [	<ul style="list-style-type: none"> bg.hiRes.gray.pr.1.adj -3 
	2 [	<ul style="list-style-type: none"> bg.hiRes.gray.pr.2.adj 0 
	IP 450	bg.medRes.gray.pat	
		bg.medRes.gray.pat.solid	
		1 [<ul style="list-style-type: none"> bg.medRes.gray.pat.solid.1.blue 255 bg.medRes.gray.pat.solid.1.green 255 bg.medRes.gray.pat.solid.1.name White bg.medRes.gray.pat.solid.1.red 255
		2 [<ul style="list-style-type: none"> bg.medRes.gray.pat.solid.2.blue 160 bg.medRes.gray.pat.solid.2.green 160 bg.medRes.gray.pat.solid.2.name Light Gray bg.medRes.gray.pat.solid.2.red 160
		bg.medRes.gray.pr	
1 [		<ul style="list-style-type: none"> bg.medRes.gray.pr.1.adj -3 
2 [		<ul style="list-style-type: none"> bg.medRes.gray.pr.2.adj 0 



A future software release is scheduled to correct an issue involving the display of background colors on SoundPoint IP 450 phones running Polycom UC Software version 3.3.x. This will correct a known issue that causes all solid backgrounds on the IP 450 to display as light gray.

The following is a description of each background parameter:

- **.name** - The name that will identify the associated color on the phone.
- **.blue .green, and .red** - The *.blue .green*, and *.red* components of the solid background shade or color. The values of these parameters vary by phone model:
 - **IP 450, 550, 560, 650** - These phones support *.blue .green*, and *.red* integer values set between 9 and 255. All three values must be the same. The background can range from dark gray (9) to white (255).
 - **IP 670** - This phone supports *.blue .green*, and *.red* integer values set between 0 (less color) and 255 (more color). One or more of the values must be greater than 16. You may create a full spectrum of background colors by modifying the individual values. The following table outlines some of the possible color combinations:

Color	Blue	Green	Red
White	255	255	255
Blue	255	0	0
Dark Green	0	160	0
Purple	255	0	255
Dark Purple	160	0	160
Dark Gray	16	16	16

- **.adj** - The brightness offset adjustment for grayscale phones (all except the IP 670). The value can be an integer between -8 (darker background) to 3 (lighter background).

Customizing the Background of Your SoundPoint IP Phone

You can configure the custom background parameters outlined in the preceding section using configuration files on your provisioning server or the phone's Web interface.

Regardless of the method you choose, if you are using a custom background image, you must copy your new background image to the provisioning server directory where the **000000000000.cfg** or **<ethernet-address>.cfg** master configuration files are located.

To configure your phone's background using configuration files on your provisioning server:

- 1 Depending on your phone's software version, open one of the following configuration files for editing:
 - For UC Software version 3.3.0 or later, open **features.cfg**.
The file is located in the *Config* folder of your UC Software download package. You may overwrite this file or save a copy with a different file name.
 - For SIP software version 3.2.x or earlier, open **sip.cfg**.
2. Modify the parameters detailed in the preceding sections to customize the background selection, the soft key and menu label colors, the background images, or the solid backgrounds. The new parameters should reflect the customizations you would like to make.
3. Enter the file name of the configuration file you edited (*features.cfg* or *sip.cfg* by default) as the value of the CONFIG_FILES parameter in one of the two master configuration files:
 - Use **000000000000.cfg** to apply your changes to all phones on your network.
 - Use **<ethernet-address>.cfg** to apply your changes to the single phone associated with that ethernet address.



All phones on a network will use the **000000000000.cfg** master configuration file unless the **<ethernet-address>.cfg** master configuration file associated with their ethernet address exists on the network. If you would like a phone to use the **000000000000.cfg** file, be sure that the associated **<ethernet-address>.cfg** file does not exist on the provisioning server.

If your edited configuration file is in a folder on your provisioning server, enter the full path of the folder and file name. For example, *MyFolder/features.cfg*.

- 4 On your phone, navigate to **Menu > Settings > Basic** and select one of the following two options depending on your software version:
 - For UC Software version 3.3.0 or later, select **Update Configuration**.
The configuration will be updated.
 - For SIP Software 3.2.x or earlier, select **Restart Phone**.
The phone will restart.

To configure your phone’s background using your the Web interface:

- 1 Open a Web browser on your computer and enter your phone’s IP address in the address bar.

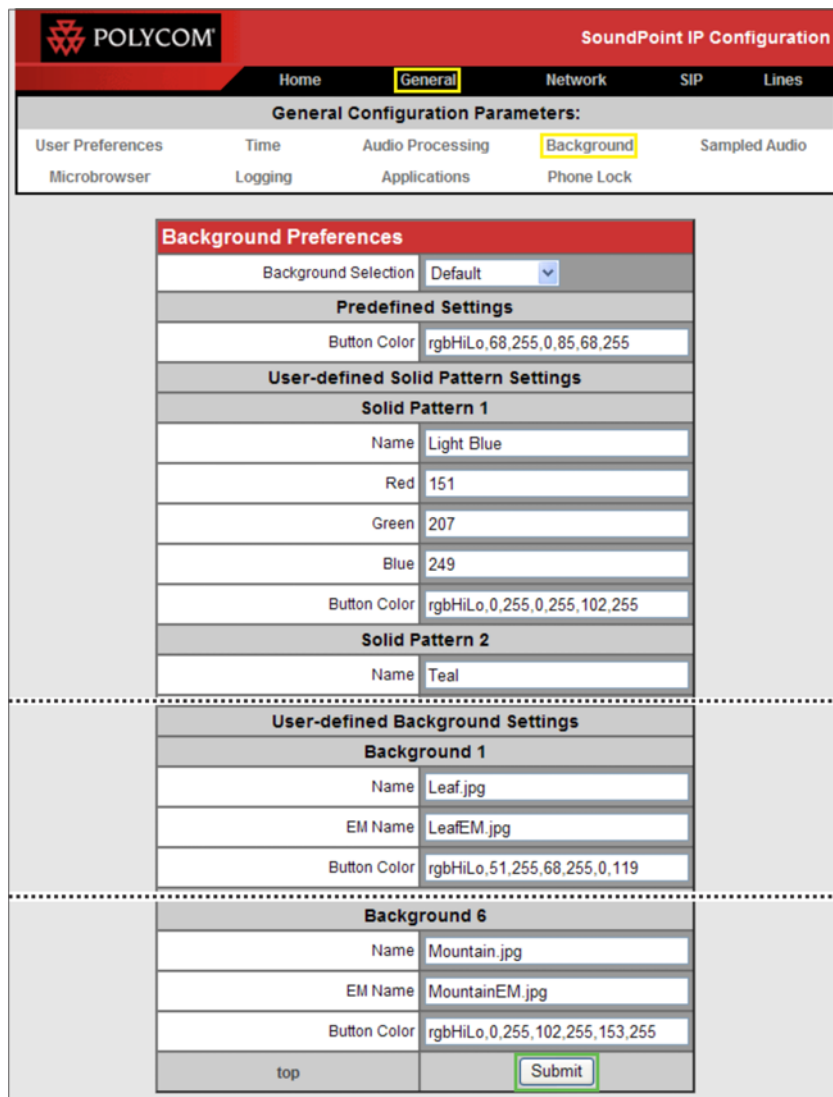
The login screen is displayed.

- 2 Enter your user name and password in the available fields. The default user name is **Polycom** and the default password is **456**. For details on using the Web interface, see the *Administrator’s Guide for the Polycom UC Software* available from <http://www.polycom.com/support/voice>.

You are logged in and the phone’s Web interface is displayed.

- 3 Click the **General** tab and select **Background**.

The Background Preferences are displayed (similar to the preferences in the figure shown next).



The screenshot shows the Polycom SoundPoint IP Configuration web interface. At the top, there is a navigation bar with tabs for Home, General (selected), Network, SIP, and Lines. Below the navigation bar is a 'General Configuration Parameters' section with a grid of links: User Preferences, Time, Audio Processing, Background (selected), and Sampled Audio; Microbrowser, Logging, Applications, and Phone Lock. The main content area is titled 'Background Preferences' and contains several sections:

- Background Selection:** A dropdown menu set to 'Default'.
- Predefined Settings:** A field for 'Button Color' with the value 'rgbHiLo.68,255,0,85,68,255'.
- User-defined Solid Pattern Settings:**
 - Solid Pattern 1:** Fields for Name (Light Blue), Red (151), Green (207), Blue (249), and Button Color (rgbHiLo.0,255,0,255,102,255).
 - Solid Pattern 2:** Field for Name (Teal).
- User-defined Background Settings:**
 - Background 1:** Fields for Name (Leaf.jpg), EM Name (LeafEM.jpg), and Button Color (rgbHiLo.51,255,68,255,0,119).
 - Background 6:** Fields for Name (Mountain.jpg), EM Name (MountainEM.jpg), and Button Color (rgbHiLo.0,255,102,255,153,255).

At the bottom of the form, there is a 'top' link and a 'Submit' button.

- 4 Modify the parameters detailed in the preceding sections to customize the background selection, the soft key and menu label colors, the background images, or the solid background colors. The new parameters should reflect the customizations you would like to make.
- 5 Press **Submit** to save your changes.

The phone is automatically updated. If your phone is running SIP software version 3.2.x or earlier, it will restart.

Adding a custom background images or solid background colors to your SoundPoint IP 450, 550, 560, 650, and 670 phones is an excellent way to unify the appearance of phones in your organization and to advertise your company or brand. For more information on customizing your Polycom phone, see Polycom Support at <http://www.polycom.com/support/voice>.

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