Wireless LAN Profile Setup

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Wireless LAN Profiles

The Wireless LAN Profile feature removes the need for users to configure Wi-Fi parameters on their phones by allowing the administrator to configure Wi-Fi profiles for them. The user devices can automatically download the Wi-Fi configuration from the Cisco Unified Communications Manager TFTP server, and the configuration is then applied to these devices.

Before you create a Wireless LAN Profile, you can configure a Network Access Profile, which contains information about VPN connectivity and HTTP proxy settings. Create a Network Access Profile from the Device > Device Settings > Network Access Profile menu.

After you create one or more Wireless LAN Profiles, you can add them to a Wireless LAN Profile Group, which you can configure from the Device > Device Settings > Wireless LAN Profile Group menu. You can also specify the enterprise-wide default group.

Note
You may add up to four Wireless LAN Profiles to a Wireless LAN Profile Group.

Note
The Cisco Desktop Collaboration Experience DX650 (SIP) supports Wireless LAN Profiles.

To use the Wireless LAN Profile feature, consider the following workflow:

1. (Optional) You can configure a Network Access Profile.
2. Create one or more Wireless LAN Profiles, and add a Network Access Profile if you configured one.
3. After you create one or more Wireless LAN Profiles, you can add them to a Wireless LAN Profile Group. You can also specify the enterprise-wide default group.

4. You can add a Wireless LAN Profile Group to a device pool or device-level configuration.

5. After Step 4, TFTP adds the Wireless LAN Profile Group to the existing device configuration file, which the device proceeds to download.

Network Access Profile Settings

The following table displays the Network Access Profile settings.

Table 1: Network Access Profile Settings

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Access Profile Information</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Enter a name for the Network Access Profile. The value can include 1 to 50 characters, including alphanumeric characters, dot, dash, and underscores.</td>
</tr>
<tr>
<td>Description</td>
<td>Enter a description for the Network Access Profile. The description can include up to 63 characters in any language, but it cannot include double quotation marks (&quot;), percentage sign (%), ampersand (&amp;), backslash (), or angle brackets (&lt;&gt;).</td>
</tr>
<tr>
<td>VPN Required</td>
<td>Specify whether virtual private networking (VPN) is required. Available options include: On</td>
</tr>
<tr>
<td>HTTP Proxy Settings</td>
<td></td>
</tr>
</tbody>
</table>
### Proxy Settings

Controls how the HTTP proxy settings are provided for this Network Access Profile. Available options comprise:

**None**

No HTTP proxy settings are provided for this Network Access Profile.

**Manual**

When you select this option, the following fields appear:

- **Proxy Hostname**: Enter an ASCII string of up to 255 characters.
- **Proxy Port**: Enter a proxy port number; the acceptable range is 1-65535 (Default = 8080)
- **Proxy Requires Authentication**: Enter a username and password of up to 64 characters. (Optional.)
- **Bypass Proxy for**: Enter the domain names for which proxy will be bypassed.

**Auto**

When you select this option, the following fields appear:

- **Proxy Auto-Config (PAC) Location**: Enter the URL for PAC; the URL is limited to 255 characters.
- **Proxy Requires Authentication**: Enter a username and password of up to 64 characters. (Optional.)
- **Bypass Proxy for**: Enter the domain names for which proxy will be bypassed.

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### Wireless LAN Profile Settings

The following table displays the Wireless LAN Profile settings.

**Table 2: Wireless LAN Profile Settings**

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wireless LAN Profile Information</td>
<td>Enter a name for the Wireless LAN Profile. The value can include 1 to 50 characters, including alphanumeric characters, dot, dash, and underscores.</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Description</td>
<td>Enter a description for the Wireless LAN Profile. The description can include up to 63 characters in any language, but it cannot include double quotation marks (&quot;), percentage sign (%), ampersand (&amp;), backslash (), or angle brackets (&lt;&gt;).</td>
</tr>
<tr>
<td>Wireless Settings</td>
<td></td>
</tr>
<tr>
<td>SSID (Network Name)</td>
<td>Enter the Service Set Identifier (SSID) for the Wireless LAN Profile. The SSID refers to the wireless network name. When the wireless endpoint is disconnected from the network and sees this SSID, it attempts to join that wireless LAN using the settings from this profile. The SSID can include up to 32 ASCII characters.</td>
</tr>
<tr>
<td>Frequency Band</td>
<td>Select one of the following frequency band settings from the drop-down list box:</td>
</tr>
<tr>
<td></td>
<td><strong>Auto</strong></td>
</tr>
<tr>
<td></td>
<td><strong>2.4 GHz</strong></td>
</tr>
<tr>
<td></td>
<td><strong>5 GHz</strong></td>
</tr>
<tr>
<td>User Modifiable</td>
<td>Select one of the following user modifiable options from the drop-down list box:</td>
</tr>
<tr>
<td></td>
<td><strong>Allowed</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Disallowed</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Restricted</strong></td>
</tr>
<tr>
<td>Authentication Settings</td>
<td></td>
</tr>
</tbody>
</table>
Specify the authentication method that is used to secure access to the Wi-Fi network. Depending on the method you choose, a password, passphrase, or key field appears so that you can provide the credentials that are required to join this Wi-Fi network.

The following authentication methods are available:

**EAP-FAST**

(Extensible Authentication Protocol - Flexible Authentication via Secure Tunneling)

This method requires a username and password (up to 64 characters).

**PEAP-MSCHAPV2**

(Protected Extensible Authentication Protocol - Microsoft Challenge Handshake Authentication Protocol version 2)

This method requires a username and password (up to 64 characters).

**PEAP-GTC**

(Protected Extensible Authentication Protocol - Generic Token Card)

This method requires a username and password (up to 64 characters).

**PSK**

(Pre-Shared Key)

This method requires a passphrase to be entered, which is a 8-63 ASCII character string or a 64 hexadecimal character string.

**WEP**

(Wired Equivalent Privacy)

This method requires a WEP Key, which is either a 5 or 13 ASCII character string or a 10 or 26 HEX character string.

**None**

This method requires no authentication.

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authentication Method</td>
<td>Specify the authentication method that is used to secure access to the Wi-Fi network. Depending on the method you choose, a password, passphrase, or key field appears so that you can provide the credentials that are required to join this Wi-Fi network. The following authentication methods are available: <strong>EAP-FAST</strong> (Extensible Authentication Protocol - Flexible Authentication via Secure Tunneling) This method requires a username and password (up to 64 characters). <strong>PEAP-MSCHAPV2</strong> (Protected Extensible Authentication Protocol - Microsoft Challenge Handshake Authentication Protocol version 2) This method requires a username and password (up to 64 characters). <strong>PEAP-GTC</strong> (Protected Extensible Authentication Protocol - Generic Token Card) This method requires a username and password (up to 64 characters). <strong>PSK</strong> (Pre-Shared Key) This method requires a passphrase to be entered, which is a 8-63 ASCII character string or a 64 hexadecimal character string. <strong>WEP</strong> (Wired Equivalent Privacy) This method requires a WEP Key, which is either a 5 or 13 ASCII character string or a 10 or 26 HEX character string. <strong>None</strong> This method requires no authentication.</td>
</tr>
</tbody>
</table>
Wireless LAN Profile Group Settings

The following table displays the Wireless LAN Profile Group settings.

*Table 3: Wireless LAN Profile Group Settings*

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wireless LAN Profile Group Information</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Enter a name for the Wireless LAN Profile Group. The value can include 1 to 50 characters, including alphanumeric characters, dot, dash, and underscores.</td>
</tr>
<tr>
<td>Description</td>
<td>Enter a description for the Wireless LAN Profile Group. The description can include up to 63 characters in any language, but it cannot include double quotation marks (&quot;), percentage sign (%), ampersand (&amp;), backslash (), or angle brackets (&lt;&gt;).</td>
</tr>
<tr>
<td>Profiles for this Wireless LAN Profile Group</td>
<td></td>
</tr>
<tr>
<td>Available Profiles</td>
<td>Specifies the profiles that are available to be added to the Wireless LAN Profile Group. You can move profiles that are listed here to the Selected Profiles field. Highlight the ones you want to move, then click the down arrow.</td>
</tr>
<tr>
<td>Selected Profiles</td>
<td>The profiles that you selected to be part of this Wireless LAN Profile Group. The profiles are listed in priority order. If the wireless endpoint sees more than one network SSID for which it has a profile definition, it first attempts to join the one with the highest priority.</td>
</tr>
</tbody>
</table>

Note: You can add up to four profiles to a Wireless LAN Profile Group.

Create Network Access Profile

**Procedure**

**Step 1**
From Cisco Unified Communications Manager Administration, select **Device > Device Settings > Network Access Profile**

**Step 2**
Click **Add New**.

The Network Access Profile settings window appears.

**Step 3**
Enter Network Access Profile settings.

**Step 4**
Click **Save**.
The Network Access Profile is created.

What to do next

• Create a Wireless LAN Profile
• Add this Network Access Profile to a Wireless LAN Profile

Create Wireless LAN Profile

Before you begin
Optionally, create a Network Access Profile to associate to a Wireless LAN Profile.

Procedure

Step 1  From Cisco Unified Communications Manager Administration, select Device > Device Settings > Wireless LAN Profile
Step 2  Click Add New.
The Wireless LAN Profile settings window appears.
Step 3  Enter the Wireless LAN Profile settings.
Step 4  Click Save.
The Wireless LAN Profile is created.

What to do next

• Create another Wireless LAN Profile
• Combine Wireless LAN Profiles into a Wireless LAN Profile Group

Create Wireless LAN Profile Group

Procedure

Step 1  From Cisco Unified Communications Manager Administration, select Device > Device Settings > Wireless LAN Profile Group
Step 2  Click Add New.
The Wireless LAN Profile Group settings window appears.
Step 3
Enter the Wireless LAN Profile Group settings.

Step 4
Click Save.

The Wireless LAN Profile is created.

What to do next
Link a Wireless LAN Profile Group to a device or Device Pool.

Link Wireless LAN Profile Group with Device

You can link a Wireless LAN Profile Group at the device or device pool level.

Note
If you link a Wireless LAN Profile Group at the device and device pool level, Cisco Unified Communications Manager uses the device pool level.

Before you begin
Create a Wireless LAN Profile Group.

Procedure

Step 1
Perform one of the following actions:
  • Select Device > Phone.
  • Select System > Device Pool

Step 2
Perform one of the following actions:
  • Find an existing device or create a new device.
  • Find an existing device pool or create a new device pool.

Step 3
Select a Wireless LAN Profile Group from the drop-down list box.

Step 4
Select Save.

The Wireless LAN Profile Group is linked to the device or Device Pool.