

Technical Bulletin 54041

Using DHCP Vendor Identifying Options With Polycom®
SoundPoint® IP, SoundStation® IP, and VVX® Phones



This technical bulletin provides step-by-step instructions for administrators on how to use DHCP vendor identifying options – options 43, 60, and 125 – with Polycom® SoundPoint® IP, SoundStation® IP, and VVX® phones in your organization.

This information applies to SoundPoint IP and SoundStation IP phones running:

- BootROM version 4.2.1RevB and SIP software version 3.2.1RevD
- BootROM version 4.2.1RevC and SIP software version 3.2.1RevE

This information applies to SoundPoint IP, SoundStation IP phones, and VVX phones running BootROM version 4.2.2 or later and SIP software version 3.2.3 or later.

Introduction

DHCP option 60 allows a DHCP server to identify the type of host making a request of it, allowing it to offer different option values for different types of hosts.

RFC 3925 defines a format of vendor identifying information as binary (the format used in previous versions of BootROM and SIP). However, many DHCP servers expect an ASCII string to be sent in option 60.

To accommodate both formats, the following changes were made:

- For BootROM 4.2.1RevB and SIP 3.2.1RevD:
 - DHCP option 60 is hardcoded as **ASCII String**.
These loads have been released to the factory for a specific SKU.
- For BootROM 4.2.1RevC and SIP 3.2.1RevE:
 - DHCP option 60 is configurable from the BootROM and SIP software. The default DHCP option 60 format is **ASCII String**.
These loads have been released to the factory for a specific SKU.
- For BootROM 4.2.2 and SIP 3.2.3:
 - DHCP option 60 is configurable from the BootROM and SIP software. The default DHCP option 60 format is **RFC 3925 Binary**.

These changes allow the current option 60 behavior to remain the default and for different hardware SKUs with a different default option 60 format to be created at the factory.



The above-mentioned changes are not implemented in SIP 3.2.2 .

Refer to [DHCP Option 43 Data Format](#) on page 2, [DHCP Option 60 Data Format](#) on page 2, and [DHCP Option 125 Data Format](#) on page 3.

When DHCP option 60 is set to **ASCII String**, DHCP option 43 data will be interpreted as encapsulated DHCP options, which override any options received outside of DHCP option 43.

When DHCP option 60 is set to **RFC 3925 Binary**, any DHCP option 43 data is ignored.

DHCP option 125 containing the RFC 3925 formatted data will be sent whenever option 60 is sent.

Option 60 Format was added to the DHCP sub-menu of the Network Configuration menu. Possible values are also **RFC3925 Binary** and **ASCII String** (default). Refer to [DHCP Menu Changes](#) on page 3.

To change the DHCP option 60 format on any SoundPoint IP or SoundStation IP phone, refer to [Changing the DHCP Option 60 Format](#) on page 3.

DHCP Option 60 Changes

DHCP Option 43 Data Format

The DHCP option 43 data format is defined in section 8.4 of RFC 2132, which can be found at <http://tools.ietf.org/html/rfc2132> .

DHCP Option 60 Data Format

The DHCP option 60 data can appear in two formats:

- **ASCII String** format is "Polycom-" + <value of hardware board model name>.
For example, for a SoundPoint IP 560, the data would show **Polycom-SPIP560**.
- **RFC3925 Binary** format is defined in section 3 of RFC 3925, which can be found at <http://tools.ietf.org/html/rfc3925> .

DHCP Option 125 Data Format

The DHCP option 125 data format is defined in section 3 of RFC 3925, which can be found at <http://tools.ietf.org/html/rfc3925>.

DHCP Menu Changes

The DHCP menu now includes the **Option 60 Format** as shown in the figures below.



Changing the DHCP Option 60 Format

To change the DHCP option 60 format:

- 1 Press the **Menu** key, and then select **Settings > Advanced > Admin Settings > Network Configuration > DHCP Menu**.
- 2 Scroll down to **Option 60 Format** (the last entry of the screen).
- 3 Press the **Edit** soft key.
- 4 Press the right arrow key to change the value.
- 5 Press the **OK** soft key.
- 6 Press the **Back** soft key twice.
- 7 Select **Save Config**.

The phone will reboot with the changed configuration.

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