![POLYCOM®]

Release Notes
BootROM Application
SoundPoint® IP, SoundStation® IP and VVX™

Version 4.1.3
12 June 2009

Part Number 3804-11069-413

Table of Contents

1   General

1.1 Software Revision

These release notes cover Polycom's SoundPoint/SoundStation IP - BootROM version 4.1.3.

1.2 Important Notes:

1. BootROM 4.1.0 or newer will be required to run SIP applications 3.1.x and newer on SoundPoint IP 550, 560, 650 and newer products.
2. BootROM 4.x.x is required for SIP installations running SIP 2.2.0 or newer where SoundPoint IP 300s or 500s are deployed. See Technical Bulletin 35311 available from www.polycom.com/support/voip (Search the Knowledge Base for 35311).
3. This BootROM version is not compatible with the MGCP application and must not be used on phones running MGCP.
4. When the BootROM is changed on the phone the Flash File System is re-formatted. To ensure that user settings such as contacts are preserved across the upgrade a provisioning server must be used for the phone to store back-up copies of the local settings and contact directory information.

1.3 Document Revision

These release notes may be updated during the life of this release as any issues are reported. This document was last updated June 12, 2009.

1.4 Hardware Support

This release is compatible with the following Polycom products:
- SoundPoint IP 300
- SoundPoint IP 301
- SoundPoint IP 320
- SoundPoint IP 321
- SoundPoint IP 330
- SoundPoint IP 331
- SoundPoint IP 430
- SoundPoint IP 450
- SoundPoint IP 500
- SoundPoint IP 501
- SoundPoint IP 550
- SoundPoint IP 560
- SoundPoint IP 600
- SoundPoint IP 601

- SoundPoint IP 650
- SoundPoint IP 670
- SoundStation IP 4000
- SoundStation IP 6000
- SoundStation IP 7000
- VVX 1500

1.5 Image Signatures

Cryptographic signatures are added to all downloaded image files as a security feature. BootROMs 3.0.0 and later require that an image has a valid signature to prevent malicious code from being used. Since no prior BootROMs have this signature it is not possible to downgrade the BootROM below 3.0.0. Similarly it will not be possible to run older applications. Care should be taken when deciding to upgrade to later BootROMs.

1.6 Distribution Files

The following files constitute the 4.1.3 distribution of the SoundPoint IP/SoundStation IP BootROM software. For centrally provisioned systems, copy these files to the boot server in order to upgrade the BootROM software on the phone.

Files	Description
bootrom.ld	Concatenated BootROM application executable, Release version 4.1.3.0054 for VVX 1500, 4.1.3.0052 for all platforms
2345-11300-001.bootrom.ld	BootROM executable for SoundPoint IP 300 – Version 4.1.3.0052
2345-11300-010.bootrom.ld	BootROM executable for SoundPoint IP 301 – Version 4.1.3.0052
2345-12200-002.bootrom.ld 2345-12200-005.bootrom.ld	BootROM executables for SoundPoint IP 320 – Version 4.1.3.0052
2345-12360-001.bootrom.ld	BootROM executables for SoundPoint IP 321 – Version 4.1.3.0052
2345-12200-001.bootrom.ld 2345-12200-004.bootrom.ld	BootROM executables for SoundPoint IP 330 – Version 4.1.3.0052
2345-12365-001.bootrom.ld	BootROM executables for SoundPoint IP 331 – Version 4.1.3.0052
2345-11402-001.bootrom.ld	BootROM executable for SoundPoint IP 430 – Version 4.1.3.0052
2345-12450-001.bootrom.ld	BootROM executable for SoundPoint IP 450 – Version 4.1.3.0052
2345-11500-001.bootrom.ld 2345-11500-010.bootrom.ld 2345-11500-020.bootrom.ld	BootROM executables for SoundPoint IP 500 – Version 4.1.3.0052
2345-11500-030.bootrom.ld 2345-11500-040.bootrom.ld	BootROM executables for SoundPoint IP 501 – Version 4.1.3.0052
2345-12500-001.bootrom.ld	BootROM executable for SoundPoint IP 550 – Version 4.1.3.0052
2345-12560-001.bootrom.ld	BootROM executable for SoundPoint IP 560 – Version 4.1.3.0052
2345-11600-001.bootrom.ld	BootROM executable for SoundPoint IP 600 – Version 4.1.3.0052
2345-11605-001.bootrom.ld	BootROM executable for SoundPoint IP 601 – Version 4.1.3.0052
2345-12600-001.bootrom.ld	BootROM executable for SoundPoint IP 650 – Version 4.1.3.0052
2345-12670-001.bootrom.ld	BootROM executable for SoundPoint IP 670 – Version 4.1.3.0052
2201-06642-001.bootrom.ld	BootROM executable for SoundStation IP 4000 – Version 4.1.3.0052
3111-15600-001.bootrom.ld	BootROM executable for SoundStation IP 6000 – Version 4.1.3.0052

Files	Description
3111-40000-001.bootrom.ld	BootROM executable for SoundStation IP 7000 – Version 4.1.3.0052
2345-17960-001.bootrom.ld	BootROM executable for VVX 1500 – Version 4.1.3.0054

1.7 BootROM Upgrade/Downgrade Path

Due to some enhancements that have been added to the BootROM software, it is not always possible to go to certain versions even if the hardware is compatible. The following table lists the upgrade/downgrade paths that are not supported:

From	Upgrade	Downgrade
1.x	2.x, 3.x, 4.x	
2.0.x, 2.1.x	2.5.x, 2.6.x, 3.x, 4.x	1.x
2.2.x	3.x, 4.x	1.x, 2.0.x, 2.1.x
2.3.x, 2.4.x	3.x, 4.x	1.x, 2.0.x, 2.1.x, 2.2.x
2.5.x	3.x, 4.x	1.x, 2.0.x, 2.1.x, 2.2.x
2.6.x		1.x, 2.0.x, 2.1.x, 2.2.x
3.0.x		1.x, 2.x
3.1.0, 3.1.1		1.x, 2.x
3.1.2, 3.1.3, 3.2.x		1.x, 2.x – All platforms All versions below 3.1.2 - SSIP 4000 only
4.x		1.x, 2.x – All platforms All versions below 3.1.2 - SSIP 4000 only

2 Changes by Release

2.1 Version 4.1.3

2.1.1 Added or Changed Features

- 48197: **Add support for SoundPoint IP 321/331 products.**

- 49115: **SoundStation IP 6000, 7000: Support new revision of Ethernet PHYs.**

2.1.2 Removed Features

- 46268: **Remove DHCP timeout from the settings menu. (All phones except SoundPoint IP300 and IP500)**

2.1.3 Corrections

- 42233: **Phone does not attempt Digest Authentication after redirect**

- 45708: **SoundStation IP 6000, IP 7000: When DHCP is disabled, CDP messages do not contain IP Address data.**

- VOIP-45860: SoundPoint IP 450: **Phone is flickering in dark gray solid background when backlight turns to low (IP450)**

- 46008: **VVX 1500: BootROM - About screen displays inaccurate IP address information when configured with static network settings.**

- 46607: **Phone fails to connect to redirected server running on different system/IP address**

- 46939: **Digest Authentication may fail on first file in the CONFIG_FILES list**

- 46966: **SoundPoint IP 320, 330, 430, 450, 550, 650, 670; SoundStation IP 4000: HTTP Digest Authentication cnonce from phone is always equal to "AAAAAAAAAAAAAAAA"**

- 47620: **SoundStation IP 4000 may get stuck at the Polycom logo screen if the reboot is triggered by IP address change**

- 47908: **SoundStation IP 4000 will not boot up when the switch port is set at 10FD and the LAN Port Mode in the phone UI is also set at 10FD.**

- 48280: **When using TFTP or FTP as the provisioning Server Type, phone does not save directory entries to flash when TFTP or FTP server is not available.**

- 48799: **VVX 1500: In booting up, after the "Running sip.ld" prompt the screen goes white. Phone is still running however.**

- 49274: **SoundStation IP 6000, 7000; VVX 1500: CDP shutdown frame is sent with TTL value of 180 seconds.**

- 49335: **SoundStation phones' model name contain "SSIP" string**

2.2   Version 4.1.2 B

2.2.1 Added or Changed Features

- **Add support for VVX 1500 hardware**

2.2.2 Removed Features
None.

2.2.3 Corrections
None.

2.3   Version 4.1.2

2.3.1 Added or Changed Features

- 29024: **Add ability to disable PC Ethernet port** (full support requires SIP 3.1.0 or later)

- 40755: **Add support for SoundPoint IP450 product**

- 41721: **Add SoundStation IP7000 video unit integration support**

- 43776: **Add IP560,IP670 Gigabit Ethernet 1000FD Master/Slave clocking configuration** (full support requires SIP 3.1.0 or later)

2.3.2 Removed Features

- 42620: **Remove SAS-VP Provisioning Option from the User Interface**

2.3.3 Corrections

- 37580: **SoundPoint IP601: Multicast rate limiting is not enabled**

- 39642: **SoundStation IP6000, IP7000: Phone should not reply to IP packets of unknown protocol with ICMP messages**

- 40328: **Phone hanging on HTTP PUT with authentication**

- 40400: **Phone issuing DHCP Inform packet un-necessarily.**

- 41366: **Update phone UI and documentation to properly reference 'CDP'**

- 42813: **Phone repeating USER AGENT in HTTP request.**

- 42969: **Malformed DHCP option can cause phone to re-boot.**

2.4   Version 4.1.1

2.4.1 Added or Changed Features

- 35976: **Add support for SoundPoint IP670 platform**

- 36859: **Add support for SoundStation IP 6000 platform**

- **Add support for SoundStation IP 7000 platform**

- 34934, 39547: **New 8MB flash device support on SoundPoint IP 550, 560, 650 phones**

- 40475: **Set VLAN Filtering to 'Off' by default**

2.4.2 Removed Features

None.

2.4.3 Corrections

- 39998: **Spelling/grammar error in reporting incompatible sip.ld load.**

- 40121: **VLAN tag not added to frame that is an IP fragment with between 1 and 3 octets of payload**

- 40309: **Negative cache is not created when doing an nslookup without using the FQDN**

- 41199: **802.1x packets do not get forwarded by SoundPoint IP 320, 330, 430, 550, 560, 650 phones**

2.5 Version 4.1.0

2.5.1 Added or Changed Features

- 35150: **Add electronic hook-switch capability using Jabra DHSG protocol on SoundPoint IP 320, 330, 430, 550, 560, 650 phones. This feature requires SIP 3.0.0 or later software release to operate. Refer to technical bulletin 35150 for more details.**

- 37256: **Add Jabra Jx10 electronic hook switch support on SoundPoint IP 320, 330, 430, 550, 560, 650 phones. Requires an "Interface Cable" from the headset base to the phone for use. Refer to technical bulletin 35150 for more details.**

- 39072: **Reduce DHCPINFORM retry timeouts.**

- 39330: **Make DHCPINFORM only apply if boot server address is Null or 0.0.0.0.**

- 39695: **Change minimum syslog.renderLevel to 0 from 1**

2.5.2 Removed Features

None.

2.5.3 Corrections

- 27607: **Image Copyright info is not up to date.**

- 39584: **Large application software images cannot be loaded. Affects SoundPoint IP 550, 560 and 650 phones. Does not affect SIP 3.0.0 or earlier releases.**

2.6 Version 4.0.1 (Limited Release)

2.6.1 Added or Changed Features

- 35817: **Native VLAN ID, Auxiliary VLAN ID and CDP Power usage are logged.**

- 36483: **Add support for SoundPoint IP 560 platform.**

- 38357**: Add ability to adjust the maximum brightness of the SoundPoint IP 550 and 650 phones.**

- 38654: **Add support for SoundPoint IP 320 Part Number 2345-12200-005 and SoundPoint IP 330 Part Number 2345-12200-004 for China market.**

2.6.2 Removed Features

None.

2.6.3 Corrections

- 27621: **FTP Password may disappear in a specific scenario.**

- 32535: **"Running 'sip.ld' " screen on IP430 has unwanted vertical line on the display.**

- 37923: **Phone stuck in reboot loop if app checksum is incorrect.**

2.7 Version 4.0.0

2.7.1 Added or Changed Features

- 25274: **Send Vendor ID information through DHCP.**

- 26623: **Add application version to boot log.**

- 29030: **Add automatic provisioning support for individual image files.**

- 33652: **Add SYSLOG feature.**

- 34401: **Add BootROM update progress bar.**

- 34625: **Add ability to discover provisioning server address using DHCPINFORM.**

- 35316: **Add phone serial (MAC address) to user-agent string of HTTP Get.**

- 35361: **Add ability for parameters in MAC.cfg to be overridden by model or platform specific versions.**

- 35362: **Add part number and substitution macros for parameter values in MAC.cfg.**

- 36030: **Add Ethernet Ingress Filtering for DoS suppression and VLAN filtering.**

- 36228: **Add support for 16 levels of gray on LCD in BootROM on SoundPoint IP 550 and 650 platforms.**

2.7.2 Removed Features

- 35344: **BootROM will not provision configuration files anymore.**

- 35350: **BootROM will not support start type that triggers a bootROM upgrade.**

2.7.3 Corrections

- 27145: **DHCP timeout setting is not used.**

- 27981/11858: **DHCPDECLINE not sent if duplicate IP detected by DHCP client on SoundStation IP 4000.**

- 33365: **Boot time is too long with unreachable boot server.**

- 35463: **Phone booting via URL displays password in boot log file.**

- 36107: **SoundStation IP 4000 drops max size packets with VLAN enabled.**

- 36658: **DHCP broadcast flag is set on SoundPoint IP 330/320, 430, 550 and 650 phones.**

- 36659: **DHCP Request does not use same 'xid' as the DHCP Offer.**

- 36682: **DHCP: xid and IP header ID does not change on SoundPoint IP 320, 330, 430, 550, 650, and SoundStation IP 4000.**

- 36905: **CDP packet always advertises LAN duplex mode as "Duplex: Full" on SoundPoint IP 300, 301, 500, and 501.**

2.8   Version 3.2.3RevB

2.8.1 Added or Changed Features

- 32146: **Add support for SoundPoint IP 330 product.**

- 33391: **Add support for SoundPoint IP 320 product.**

2.8.2 Removed Features

None.

2.8.3 Corrections

None.

2.9 Version 3.2.3

2.9.1 Added or Changed Features

- 16110: **Add support for SoundPoint IP 550 platform.**

2.9.2 Removed Features

None.

2.9.3 Corrections

- 34899: **Phones can lose internal configuration after loss of power.**

- 35063: **SoundPoint IP650 should request 6W (was 5W in prior release) for PoE usage.**

- 35068: **Reduce PoE power level requested by SoundPoint IP601 when configured for Expansion Module use (EM_Power=1) to 11W (was 12W).**

2.10 Version 3.2.2RevB

2.10.1   Added or Changed Features

- 14874: **Add support for SoundPoint IP 650 platform.**

2.10.2   Removed Features

None.

2.10.3   Corrections

- 18766: **Ethernet transmit level is low on IP 430 platform.**

2.11 Version 3.2.2

2.11.1   Added or Changed Features

- 17412: **Add ability to set Ethernet link mode on IP430 and IP 4000 platforms.**

2.11.2   Removed Features

None.

2.11.3   Corrections

- 17134: **BootROM 'About' screen on IP430 shows incorrect VLAN initially for few seconds and then goes to the correct one.**

2.12 Version 3.2.1

2.12.1   Added or Changed Features

- 11678: **Add template support in master config. file.**

- 15930: **Add ability to set Ethernet link mode on IP 601.**

2.12.2 Removed Features

None.

2.12.3 Corrections

- 12337: **LCD flickers on IP 430.**

- 15956: **Phone fails to up/download file after an up/download fails during data transfer.**

- 16021: **Ftp downloads may fail because phone improperly times out connect attempts.**

- 16629: **Set transfer time-out for image file download to worst case scenario.**

2.13 Version 3.2.0 (Beta Only)

2.13.1 Added or Changed Features

- **Add support for IP4000 PoE PIM.**

- 13552: **Improve boot-up diagnostics.**

- 13813: **Add the ability for file transfers to attempt to contact multiple IP's per DNS name.**

- 14400: **Phone can take up to 30 minutes to boot when HTTP goes through TCP timeouts.**

- 14625: **BootROM takes 15 minutes if DNS server IPs are not valid.**

2.13.2 Removed Features

None.

2.13.3 Corrections

- 14673: **@ character is not accepted as part of the FTP user name, password, or filename.**

- 14844: **Failed downloads of pre-existing files causes deletion of pre-existing files.**

- 15614: **Having different parameters in flash based on platform can cause issues.**

2.14 Version 3.1.3 RevD

2.14.1 Added or Changed Features
None.

2.14.2 Removed Features
None.

2.14.3 Corrections
- 12337: **LCD flickers on IP430.**

2.15 Version 3.1.3 RevC

2.15.1 Added or Changed Features
- 12414: **Add support for IP 430 hardware platform.**

2.15.2 Removed Features
None.

2.15.3 Corrections
- 15986: **BootROM boots from a cached copy after downloading a wrong signature load.**

2.16 Version 3.1.3 RevB

2.16.1 Added or Changed Features
- 9873: **Maintain Ethernet link during boot-up sequence on IP 4000.**

2.16.2 Removed Features
None.

2.16.3 Corrections
None.

2.17 Version 3.1.3

2.17.1 Added or Changed Features
- 14052: **Add ability to disable Expansion Module support and reduce CDP power requirements accordingly.**
- 14886: **Change the power reported via CDP to the minimum required value.**

2.17.2 Removed Features

None.

2.17.3 Corrections

- 13793: **For HTTP digest authentication, cnonce from our phone is not random.**

- 14489: **Phone won't upload all log files to TFTP boot server if log_file_directory specified on MAC.cfg doesn't exist on IP 300, IP 400 and IP 500.**

- 15104: **CDP incorrectly advertises new link duplex levels on IP 4000**

2.18 Version 3.1.2

2.18.1 Added or Changed Features

- 13910: **Prevent SSIP 4000 from downgrading to BootROM versions that have bug #13361.**

- 13911: **Auto detect and correct bug #13361 on SSIP 4000.**

2.18.2 Removed Features - None.

2.18.3 Corrections - None.

2.19 Version 3.1.1

2.19.1 Added or Changed Features

- 13475: **User agent headers for HTTP will include the MAC address of the phone when SAS-VP is enabled.**

2.19.2 Removed Features - None.

2.19.3 Corrections

- 13361: **SSIP 4000 may lose the custom CA Certificate or the SAS-VP ID after file system activity.**

2.20 Version 3.1.0

2.20.1 Added or Changed Features

- 8761: **Added IP 601 support.**

2.20.2 Removed Features - None.

2.20.3 Corrections

- 11857: **Phone ignores short DHCP packets on SSIP 4000 SIP.**

2.21 Version 3.0.1

2.21.1   Added or Changed Features
- 11633: **Use flash credentials when URLs lack them.**

2.21.2   Removed Features - None.

2.21.3   Corrections
- 2179: **FTP password is present in the boot logs.**
- 11409: **Provisioning may not work reliably with the proftpd FTP server on Linux.**
- 11417: **Phone may not be able to boot from a remote subnet.**

2.22 Version 3.0.0

2.22.1   Added or Changed Features
- 7663, 8970, 9299: **Added ability to specify addresses as URLs.**
- 7847: **Added support for HTTP boot server transport for SPIP 301/501/600/601 and SSIP 4000.**
- 7895: **Add support for provisioning signed images only.**
- 9579: **Allow specific master config file to be specified in boot server URL.**

2.22.2   Removed Features
- 11973: **Removed support for port mode (Active) FTP server configurations**
  Use an FTP server/firewall that supports passive mode connections.

2.22.3   Corrections
- 9043: **Phone does not reboot after a CDP VLAN change.**

2.23 Version 2.6.2

2.23.1   Added or Changed Features - None.

2.23.2   Removed Features - None.

2.23.3   Corrections
- 8553: **DHCP short packets are ignored in the BootROM. Not fixed for SoundStation IP 4000 SIP.**
- 11278: **DHCP decline not sent on duplicate IP address. Not fixed for SoundStation IP 4000 SIP.**

2.24 Version 2.6.1

2.24.1   Added or Changed Features - None.

2.24.2   Removed Features - None.

2.24.3   Corrections

- 9447: **Phone fails to boot if the boot server is not present and the application is not self-provisioning.**
- 9537: **When using TFTP, the phone does not display the "Phone could not contact the boot server" screen.**
- 9581: **Phone does not format the file system if the application does not fit.**

2.25 Version 2.6.0

2.25.1   Added or Changed Features

- 5761: **Added support for the SoundStation IP 4000 SIP.**
- 7175: **Made TFTP file provisioning consistent with FTP.**
- 8232: **Added DHCP VLAN Discovery.**
- 8760: **Added support for the SoundPoint IP 301.**

2.25.2   Removed Features - None.

2.25.3   Corrections

- 6782: **Invalid <MAC>.cfg can hang the phone.**
- 8548: **Phone waits 2.5 minutes for SNTP to fail.**

2.26 Version 2.5.1

2.26.1   Added or Changed Features - None.

2.26.2   Removed Features - None.

2.26.3   Corrections - None.

2.27 Version 2.5.0

2.27.1   Added or Changed Features

- 5116: **Added support for the SoundPoint IP 300.**

2.27.2　　　Removed Features - None.

2.27.3　　　Corrections

- 5191: **FTP provisioning fails if the FTP server root directory is not readable.**
- 5623: **Hitting the left arrow key before the cursor advances moves the cursor 2 spaces.**
- 5668: **Spaces in the admin password are ignored.**
- 5754: **Phone did not log out of FTP server after a BootROM update.**

3　Notes

3.1　Outstanding Issues

- 13786/29344: **HTTP Digest Authentication does not work on IIS.**
  Workaround: Use a different form of authentication, a different protocol or a different server.