

Spectralink 87-Series Smartphone

Release Notes

Spectralink PIVOT Software 2.1 and 1.8

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Warranty

The *Product Warranty and Software License and Warranty* and other support documents are available at <http://support.spectralink.com>.

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Introduction to PIVOT by Spectralink

PIVOT by Spectralink is a smartphone solution from Spectralink Corporation, the leader in enterprise wireless telephony solutions.

Starting with PIVOT software version 2.0, the code is based on Android 5.1.1, also known as “Lollipop”. Earlier PIVOT software versions 1.3 to 1.7 are based on Android 4.4.2 also known as “KitKat®”. As an Android device, it is designed to use the Android applications model that allows us to apply Android’s revolutionary modular approach to solution development for workplace requirements.

The PIVOT handset combines the familiarity of an Android smartphone with advanced software functionality and the durability needed for a workplace environment. It is a WorkSmart device.

- Enables mobile workers throughout the workplace to be reached immediately and reliably via voice, texts or other alerts
- Instantly familiar with smartphone-like features you can use, right out-of-the-box
- Leverages a powerful mobile application platform that integrates with Android or XML solutions for improved workflow
- Purpose-built with unrivaled durability, longevity and support to protect your investment
- Enterprise-level security and privacy as well as over-the-air management and update capabilities
- Interoperable with your existing business applications, WLAN infrastructure and telephone (PBX) system
- Integration with leading Mobile Device Management (MDM) tools

Spectralink applications are translated into French, German, Spanish and Italian but we have retained the long list of languages offered by Android. If you select a different language, labels associated with specialized applications may appear in English.

Instructions for using standard Android features are readily available online. Specialized Spectralink applications follow Android usage guidelines. A list of references is provided at the end of this document.

PIVOT ships with a set of applications that we have tested and approved. However, because vendors update their applications frequently we cannot always test with the latest version by the time it is released and in some cases this may create incompatibilities with the product.

Chapter 1: PIVOT Software 2.1.x

Version: PIVOT 2.1.0.17257

For use with the following versions:

- CMS Version: 2.0.1496.1665
- QNC Version 1.0.81
- SLIC Version: 3.51



Admin Tip: PIVOT 2.1 will run on any PIVOT model

Unlike the PIVOT 2.0 release, which only ran on PIVOT 8744 models, this PIVOT 2.1 release will run on all PIVOT models.



Caution: Software is not downgradable

Any PIVOT model running KitKat software version 1.8 can be updated to PIVOT 2.1. However, THERE IS NO DOWNGRADE PATH.

The PIVOT 8744 model running Lollipop software version 2.0 can be updated to PIVOT 2.1. However, THERE IS NO DOWNGRADE PATH.

Do not update PIVOT smartphones to 2.1 if you intend to downgrade them to an earlier version later.

New Features

Lollipop

- R2.1 can be used on any device in the PIVOT family, which means KitKat phones running R1.8 or later can be upgraded to Lollipop R2.1
- Compatible with CMS 2.0 and QNC 1.0
- EAP-FAST is now supported in Lollipop
- Bluetooth support is no longer limited to mPOS devices, however telephony headsets (SCO headsets) are not supported at this time.
- Short Codabar barcode (under 6 characters) can now be read
- PIVOT offers 3 out-of-the-box configuration options, QNC WIFI, QNC USB and Google Wizard
- Google GMS version update to 5.1.1 R5, which means Google Play is updated to version 6.7.13 out of the box

- Phones upgraded from KitKat become subject to Factory Reset Protection. With the Lollipop release, Google has introduced Factory Reset Protection. Its purpose is to prevent unauthorized use of lost/stolen phones.

Factory Reset Protection is enabled when:

- » There is one or more Google account on the phone that has been synced
- » a lock screen PIN/Pattern/Password has been set.

If the user has locked the phone and also set up a Google account and you do not have the password for either of these, you must RMA the phone.

Once enabled if the phone is reset to factory settings by any other means than through the Admin menu, when the phone comes up, you will be presented with a Google account challenge. You must enter the Google account criteria in order to use the phone. If this data is unknown, the phone must be RMA'd.

- PTT, SAFE and PANIC are now available without requiring purchase of a separate license.

Fixed Issues

<i>Issue</i>	<i>Description</i>
P-1991	The skip button in the wireless configuration page of the Google Wizard is now enabled, allowing completing the wizard without requiring internet access
P-2985	Hard Roam times have been improved
P-3100	End-users should not be able to disable Wi-Fi via status bar
P-3269	No Audio on SIP Call
P-3337	High Contrast Text setting toggled after CMS RMA performed between KK and Lollipop
P-3432	Cannot Lock Phone while in call
P-3434	Screens flash scroll bar, then it disappears or have no scroll bar
P-3458	Audio drop when speaker termination changes to rear speaker using emergency dial
P-3498	Exception Thrown as Status Bar Drawn on Phone Startup
P-3535	In-call battery life is too low
P-3569	Improved focus of camera in Movie mode
P-3571	Rare lockup upon boot completion is now fixed
P-3586	Fixed several issues related to over-the-air update from CMS in Lollipop
P-3595	Rare UI lockup is now fixed
P-3603	Phone occasionally rebooting upon reentering Wi-Fi coverage is now fixed
P-3617	Under certain conditions the phone would lose WLAN connectivity until the next power cycle
P-3626	Improved battery consumption of camera on PIVOT 8744
P-3630	Fixed (rare) reboots when plugging into USB
P-3663	PIVOT does not play ringback on a blind transfer (may not connect to far end)
P-3759	PIVOT phone not handling NAT properly

<i>Issue</i>	<i>Description</i>
P-3767	Android performance improvements
P-3801	Phone loses registration overnight
P-3928	Push-to-talk messages can now cross routers to other subnets (TTL increased to 64).
P-3985	Phone not connecting with EAP-FAST when provisioned by SLIC
P-4049	SIP Stream at Best Effort

Known Issues

- Encrypted phones cannot be upgraded. You must perform a restore to factory defaults before performing the upgrade (see Tech Bulletin).
- Upgrading to Lollipop requires that a minimum of 1600 Mb be available in phone storage, or the upgrade will not be applied and error “*** This update requires > 1.6 GiB of free space on the device ***” will be shown.
- Once upgraded to R2.1, PIVOT cannot be downgraded to prior versions (R1.x or R2.0).
- Most Bluetooth headsets do not work with PIVOT at this time.

<i>Issue</i>	<i>Description</i>
P-1428	Change of NTP server requires reboot to take effect
P-3022	Call log is slow to update when you have a large number of logs
P-3023	Phone is not logging version in syslog file when out of range
P-3102	Phone stops ring after one ring cycle on certain ring tones
P-3247	Rarely, Reorder tone may not be played
P-3248	Tone cadences may not be played smoothly
P-3259	Extended out of the box boot time to SLIC/Google Wizard on 8744 and Lollipop
P-3306	Lollipop handoff time can take longer than normal, resulting in higher missed audio count
P-3426	Camera icon not shown on lock screen except for Swipe screen security
P-3504	Phone occasionally has sluggish performance
P-3528	Camera sometimes freezes after recording a video
P-3564	Settings UI crashes when Camera is disabled and the Flashlight is selected
P-3998	QNC will not load APKs onto Pivot if the APK has a space in the filename
P-4016	Background upgrades from the Play Store may degrade voice quality

Chapter 2: PIVOT Software 2.0

Version: User build 2.0.0.15757

For use with the following versions:

- SLIC Version: 3.51
- CMS Version: 1.5



Caution

This software version is for PIVOT:SC models (8744) only (camera phones). Do not attempt to load it on earlier phone models. Do not attempt to downgrade PIVOT:SC phones to an earlier software version.

New Features

Lollipop

- Revision 2.0 (built on the Google Lollipop release) is only available on 8744 (PIVOT:SC) and cannot be deployed on 8742 (PIVOT:S) or 8741 (PIVOT Classic) or 8753 (PIVOT Barcode). Attempting to OTA the wrong model will display "Update incompatible with this hardware"
- Lollipop cannot be downgraded to KitKat (earlier versions).
- Google Factory Reset Protection
- Updated GMS version (5.1_r3)
- Android security patch level option in Settings> About Phone lists the date of the most recent security patch.
- Wireless icon shows an exclamation mark when Internet is not reachable.

Camera

The features of the Google camera application include both still pictures and video.

- Can be disabled in the Admin menu
- "Flashlight" feature available from quick settings.

Other

- To enter the recovery menu, hold Power button then press VolUP.
- AAC audio playback upgraded to AAC High Efficiency for higher fidelity playback.

Fixed Issues

- Applied all Google security patches up to 3/1/16.
- We have updated Google Play to the latest Lollipop version. (P-3025)

Known Issues

- Bluetooth is disabled.
- No support for EAP-FAST.
- Multiuser support is disabled. (P-3087)
- There is no workaround for Factory Reset Protection; if the user has locked the phone and also set up a Google account and you do not have the password for either of these, you must RMA the phone. (P-3336)

Google Account pw	Unknown	Unknown	Known or na
Lock Screen pw	Unknown	Known or na	Unknown
Recovery method	RMA	Factory reset through Admin menu	Factory reset through Recovery menu

- First time boot out of the box and when Factory reset is performed the phone may take as long as 10 minutes to boot up to the home screen; subsequent boots are much faster. (P-3529)

<i>Issue</i>	<i>Description</i>
P-3727	Bypass proxy not working without 'www'
P-3564	Settings UI crashes when Camera is disabled and the Flashlight is selected
P-3550	WAV files on browser - audio is repeated and garbled in Lollipop
P-3504	Phone occasionally has sluggish performance
P-3432	Cannot Lock Phone while in call
P-3426	Camera icon not shown on lock screen except for Swipe screen security
P-3276	PIVOT briefly loses Wi-Fi when first connected to the CMS
P-3248	Tone cadences may not be played smoothly
P-3102	Phone stops ring after one ring cycle on certain ring tones
P-3100	End-users are able to disable Wi-Fi via status bar, with Admin password
P-3022	Call log is slow to update when you have a large number of logs
P-1428	Change of NTP server requires reboot to take effect

Chapter 3: PIVOT Software 1.8.x

Version: 1.8.0.17256

For use with the following versions:

- CMS2 Version: 2.0.1496.1665
- QNC Version 1.0.81
- SLIC Version: 3.51

Updating to version 1.8.x

A handset must be running R1.3, R1.4, R1.5, R1.6 or R1.7 before it can be updated to R1.8. Attempting to upgrade an R1.0/R1.1 phone directly to KitKat (R1.3 or later) will display an error message during the update process and the update will not be applied (the phone will still run the previous version after rebooting). The *Spectralink 87-Series Wireless Telephone Administration Guide* thoroughly covers the updating and downgrading process.

Consult the “Software Update – PIVOT” reference from September 30, 2014 to determine if your current PIVOT handsets can operate version 1.3 or later. If the reference is not handy, [read the online version](#).

The upgrade path to version 2.1.x

Software version R1.8 is the last release for Kitkat code and contains necessary code for the phone to upgrade to R2.1 and higher which use Android Lollipop code. Some facilities will upgrade PIVOTs to R1.8 as a path to upgrade to R2.1. If this is the case, be sure to read the R2.1 release notes and be certain that a downgrade will not be needed.

New Features

Handset

- PTT, SAFE and PANIC are now available without requiring purchase of a separate license.
- Integrated various Android security patches
- Wi-Fi performance and reliability improvements
- PIVOT offers 3 out-of-the-box configuration options:
 - QNC WIFI,
 - QNC USB
 - Google Wizard

- R1.8 is compatible with CMS R2.0. Earlier versions of KitKat code are not compatible with CMS 2.0 and must use earlier versions. R1.8 is also compatible with earlier versions of CMS code.

Fixed issues

Handset

<i>Issue</i>	<i>Description</i>
P-3926	PIVOT can get very sluggish when receiving Connexall messages
P-3928	Push-to-talk messages can now cross routers to other subnets (TTL increased to 64).

Known issues

Handset

No additional known issues since R1.7

Chapter 4: PIVOT Software 1.7.x

Version: User build 1.7.0.12599

For use with the following versions:

- SLIC Version: 3.50
- CMS Version: 1.5

Important update information

The 1.7.0 release for the Spectralink 87-Series is a “maintenance release”, but it does include significant new features as detailed below.

Updating to version 1.7.x

A handset must be running R1.3, R1.4, R1.5 or R1.6 before it can be updated to R1.7. Attempting to upgrade an R1.0/R1.1 phone directly to KitKat (R1.3 or later) will display an error message during the update process and the update will not be applied (the phone will still run the previous version after rebooting). The *Spectralink 87-Series Wireless Telephone Administration Guide* thoroughly covers the updating and downgrading process.

See the R1.3 chapter in these release notes for more information.



Caution: There is no downgrade path below 1.3

The Android™ operating system is not designed by Google to provide a downgrade path between major versions. Releases 1.3 and later use Google KitKat®. Once a phone is upgraded from R1.3 to release R1.4 or later, it can be downgraded to R1.3 but not to an earlier version i.e. R1.2 or before.

New Features

Handset

Battery Hot Swap

A mechanism was added to allow the user to swap batteries without rebooting. This feature is accessed with a long press of the Power key and will require plugging the AC charger to allow the battery to be replaced. The phone remains fully operational (e.g. receive calls or messages) during the swap process. Full details are in the *PIVOT by Spectralink User Guide*, available online at <http://support.spectralink.com/pivot>.

Default OTA update polling interval changed to every 4 hours

The check for OTA software update has been changed to every 4 hours, rather than defaulting to checks only being triggered by CMS. This allows phones that missed the CMS notification (e.g. the phone was turned off) to pick up the update on their own at a later time without admin intervention.

Enabled Android “chooser” for the web browser

In order to comply with Google requirements, the phone no longer uses the Native browser (blue “Earth” icon) by default out of the box. The first time the user opens a URL on a new PIVOT handset (or after restoring to factory defaults), he will be prompted to pick which browser to open the URL with (Always, Just Once). Handsets being upgraded from a previous version will not see a change, the Native browser will remain the default.

Fixed issues

Handset

<i>Issue</i>	<i>Description</i>
P-2888	Optimize fringe roaming An issue that caused excessive roaming in low signal areas has been resolved. This should result in improved call stability and application connectivity in those areas.
P-2845	Some web API event notifications do not indicate line number When dual line registration was added in v1.6, not all of the event notifications were updated to indicate to which line the event pertained. All event notifications should now reflect the relevant line.
P-2777	Improve call log performance Phones with large numbers of contacts or call history entries experienced bad performance when initiating or ending SIP calls. These performance issues were due to the manner in which we updated call history to reflect changes made to contacts. The timing with which call history entries are updated has been modified to improve performance.
P-0445	Unable to modify the URL of an existing WebAPI event notification using the phone UI When modifying the URL of an existing WebAPI event notification, users would encounter a scenario where it appeared that the URL was updated but, upon returning to the menu, they would discover that it had reverted back to the previous value. This issue has been corrected, and the modified URL should now persist.
P-2231	Security Patches Android has been updated with all security patches available from Google, including all “stagefright” official patches.

SLIC

<i>Issue</i>	<i>Description</i>
S-78	SLIC USB Encryption or Corruption Certain users reported that their USB drives were either encrypted or corrupted after using SLIC for some period of time. This issue has been fixed.

Known issues

Handset

<i>Issue</i>	<i>Description</i>	<i>Workaround</i>
E-0660	When using TCP for SIP network transport protocol, the phone alerts that SIP registration has failed when Wi-Fi connection is lost during standby. Using UDP the phone alerts at re-registration that SIP registration has failed if there is no Wi-Fi connection. If connection is lost and then re-acquired within the re-registration interval, there is no alert.	Configure UDP for SIP network transport protocol if the immediate registration failed alert during standby is an annoyance.
P-2880	SafeEvent line number The LineNumber field in the SafeEvent notification does not correspond to the first or second SIP registration. Instead, a value of 0 indicates that no emergency contact is configured for SAFE alarm, and a value of 1 indicates that the phone will call an emergency contact. This is inconsistent with the LineNumber meaning in other notifications.	
P-2076	When using WMM-AC, enabling access-control for Voice (AC-VO) only can lead to loss of performance on some access points.	Enable access control both for Voice (AC-VO) and VIDEO (AC-VI) which is used for call control.
P-2022	Phone retries registration after digest authentication fail or 500 responses	
P-2011	The phone sometimes sends multiple option requests to the same server when multiple servers are specified	
P-2001	[Cisco] - Directed Call Park using blind transfer fails	
P-1975	SLIC will not load APKs onto Pivot if the APK has a space in the filename	
P-1906	At first boot or at factory default the Google Wizard shows an Emergency Call button. Even though touching it brings up a dialer, the phone is unable to dial an emergency call at that point because Wi-Fi is not set up.	Admins are expected to configure Wi-Fi and other phone parameters so final users are not confused by this inability to make emergency calls.
P-1890	Manually added Wi-Fi SSID cannot be connected to until the handset is rebooted	
P-1814	Should display a toast when preventing the display of an item behind the admin menu	
P-1612	Chrome populates in the right most hot-seat at the bottom of the home screen in 1.3, but not for updates or in 1.4/1.5.	Chrome can be placed manually in the desired position.
P-1561	The phone now supports DRM and will play some DRM protected content. Certain content will not play if it requires a level of DRM higher than that supported by the phone.	
P-0169	"Scanning always available" option is now always on.	
P-0117	PIVOT WEB API Close Browser call may have a race condition -	wait 5 seconds between triggering a Close Browser call and sending a new push to the phone

<i>Issue</i>	<i>Description</i>	<i>Workaround</i>
P-0116	If the username for PTT is left blank, no audio plays.	
P-0105	SLIC toast keeps popping, even if SLIC app is in background	This is by design to let the admin know that adb is still enabled. Switch to the SLIC app using the Task Switcher and close SLIC.
P-0081	window.location.replace({URL}); does not work when run in SLNK Webview	
E-0561	Fixes underway pertaining to echo being heard at the far end under some conditions.	
	OTA update file is much larger than previous versions because it contains Google applications. The OTA download will take longer.	
	After an update the phone can stay black for several minutes before displaying the lock screen.	
	PIVOT will no longer offer certain unsupported Bluetooth devices for pairing	
	Proper operation is not guaranteed when the phone doesn't have access to an NTP server (standard Google one over the Internet, or NTP server)	

Chapter 5: PIVOT Software 1.6.1

Version: User build 1.6.1.11460

For use with the following unchanged versions:

- SLIC Version: 3.48
- CMS Version: 1.5

Your Spectralink support representative will guide you through software release installations as needed.

Important update information

The 1.6.1 release for the Spectralink 87-Series is a “maintenance release”, but it does include significant standby battery life improvements and a second call server registration feature.

Updating to version 1.6.1.11460

A handset must be running R1.3, R1.4 or R1.5 before it can be updated to R1.6. Attempting to upgrade an R1.0/R1.1 phone directly to KitKat (R1.3 or later) will display an error message during the update process and the update will not be applied (the phone will still run the previous version after rebooting). The *PIVOT Administration Guide* thoroughly covers the updating and downgrading process.

See the R1.3 chapter in these release notes for more information.



Caution: There is no downgrade path below 1.3

The Android™ operating system is not designed by Google to provide a downgrade path between major versions. Releases 1.3 and later use Google KitKat®. Once a phone is upgraded from R1.3 to release R1.4 or later, it can be downgraded to R1.3 but not to an earlier version i.e. R1.2 or before.

New Features

Handset

Airplane mode option removed from outside of the Admin menu

Some users were reporting that the airplane mode was inadvertently being enabled via the notification drawer or a long press of the power button. The airplane mode option has been removed from both of those locations. It is, however, still present in the Admin menu.

Stagefright issue

Release 1.6.1 incorporates additional patches for the “Stagefright” vulnerability. Customers who are concerned about this issue should upgrade to R1.6.1.

Fixed issues

Handset

<i>Issue</i>	<i>Description</i>
E-618	Certain customers were unable to place SIP calls using an older PBX that did not support the colon character being present in the user-agent. While the presence of the colon was not a violation of the SIP specification, it has been removed for compatibility with older PBXs.

Known issues

Please refer to the known issues for R1.6.0 in Chapter 2.

Chapter 6: PIVOT Software 1.6.0

Version: User build 1.6.0.11262

For use with the following unchanged versions:

- SLIC Version: 3.48
- CMS Version: 1.5

Your Spectralink support representative will guide you through software release installations as needed.

Important update information

The 1.6.0 release for the Spectralink 87-Series is a “maintenance release”, but it does include significant standby battery life improvements and a second call server registration feature.

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See the R1.3 chapter in these release notes for more information.



Caution: There is no downgrade path below 1.3

The Android™ operating system is not designed by Google to provide a downgrade path between major versions. Releases 1.3 and later use Google KitKat®. Once a phone is upgraded from R1.3 to release R1.4 or later, it can be downgraded to R1.3 but not to an earlier version i.e. R1.2 or before.

New Features

Handset

Battery life improvements, MWI LED support

Blinking LED is available on all models. Battery life is significantly improved on all models to up to 90 hours.

Factors that negatively impact battery life such as screen illumination time, SAFE, Google, location services, notifications, and other applications must be considered when setting battery life expectations. Please test your handset as configured for your facility to determine your specific battery life expectations.

Second registration for custom SIP nurse call integration

The registration for a second line is available for custom SIP nurse call integration. The second registration offers the same configuration options as the first registration. Calls can be received by the second registration and calls go into the call history. Calls can be returned from the call history, but not from the dialer. Contacts cannot be saved from incoming calls on the second registration. A custom ring tone can be programmed to play for incoming calls to the second registration. A ring tone can be specified by the call server, by the contact, customized by registration in the Sound menu or simply play the tone specified in the Sound menu. The second registration supports voicemail which can only be accessed through the voicemail notification.

Barcode API

Barcode API now allows scans to go to multiple applications, and the barcode scanner can be turned on and off.

OTA updater reliability improvements

Stability improvements and various bug fixes.

Heartbleed issue

Release 1.6 incorporates the latest Android security advances and is not susceptible to the “Stagefright” vulnerability. Customers who are concerned about this issue should upgrade to R1.6.

Fixed issues

Handset

<i>Issue</i>	<i>Description</i>
P-2316	If a configuration value in CMS was removed, it was causing an exception to be thrown on the phone in certain cases. The phone now gracefully handles the removal of previously set configuration values in CMS.
P-2187	If the SIP service was disabled and subsequently re-enabled, it would fail to start up.
P-2020	Sometimes after attempting to apply OTA update, the phone ended up in recovery mode and rebooting the phone to complete the upgrade was required. The process has been made more robust and this problem should not recur.
P-1814	When the user attempts to directly access an item behind the admin menu, the handset now displays a Toast "Admin access required"
E-0602	Automatic screen lock time interval now responds to setting by user. (No longer stuck at 5 seconds.)
E-0632	Certain customers were experiencing dropped SIP calls. This release includes several fixes that address those dropped calls as well as improve the call wrap-up. In past releases, the call wrap-up generated exceptions, which caused a 15 second delay before a subsequent call could be placed. Those exceptions have been addressed thereby improving call wrap-up stability and performance.

Known issues

Handset

<i>Issue</i>	<i>Description</i>	<i>Workaround</i>
P-2076	When using WMM-AC, enabling access-control for Voice (AC-VO) only can lead to loss of performance on some access points.	Enable access control both for Voice (AC-VO) and VIDEO (AC-VI) which is used for call control.
P-2022	Phone retries registration after digest authentication fail or 500 responses	
P-2011	The phone sometimes sends multiple option requests to the same server when multiple servers are specified	
P-2001	[Cisco] - Directed Call Park using blind transfer fails	
P-1975	SLIC will not load APKs onto Pivot if the APK has a space in the filename	
P-1906	At first boot or at factory default the Google Wizard shows an Emergency Call button. Even though touching it brings up a dialer, the phone is unable to dial an emergency call at that point because Wi-Fi is not set up.	Admins are expected to configure Wi-Fi and other phone parameters so final users are not confused by this inability to make emergency calls.
P-1890	Manually added Wi-Fi SSID cannot be connected to until the handset is rebooted	

<i>Issue</i>	<i>Description</i>	<i>Workaround</i>
P-1612	Chrome populates in the right most hot-seat at the bottom of the home screen in 1.3, but not for updates or in 1.4/1.5.	Chrome can be placed manually in the desired position.
P-1561	The phone now supports DRM and will play some DRM protected content. Certain content will not play if it requires a level of DRM higher than that supported by the phone.	
P-0169	“Scanning always available” option is now always on.	
P-0117	PIVOT WEB API Close Browser call may have a race condition	Wait 5 seconds between triggering a Close Browser call and sending a new push to the phone
P-0116	If the username for PTT is left blank, no audio plays.	
P-0105	SLIC toast keeps popping, even if SLIC app is in background	This is by design to let the admin know that adb is still enabled. Switch to the SLIC app using the Task Switcher and close SLIC.
P-0081	window.location.replace({URL}); does not work when run in SLNK Webview	
E-0561	Fixes underway pertaining to echo being heard at the far end under some conditions.	
	OTA update file is much larger than previous versions because it contains Google applications. The OTA download will take longer.	
	After an update the phone can stay black for several minutes before displaying the lock screen.	
	PIVOT will no longer offer certain unsupported Bluetooth devices for pairing	
	Proper operation is not guaranteed when the phone doesn't have access to an NTP server (standard Google one over the Internet, or NTP server)	

CMS

<i>Issue</i>	<i>Description</i>	<i>Workaround</i>
C-356	The CMS webserver fails to start when a hostname is specified	Use an IP address instead of a hostname. Then, use an A record to point the hostname you would like to use to the IP address of the CMS server.
P-2595	Changing the Wi-Fi frequency band via CMS intermittently fails to properly update configuration on the phones	

Chapter 7: PIVOT Software 1.5.x

Current release information

This release includes these software versions:

- Handset Version: 1.5.0.10702
- CMS Version: 1.5.x.x
- SLIC Version: 3.48

Your Spectralink support representative will guide you through software release installations as needed.

Important update information

The 1.5.x release for the Spectralink 87-Series is a “maintenance release” and therefore it does not include major feature enhancements. It only includes minor enhancements and bug fixes.

Updating to version 1.5.0.10702

A handset must be running R1.3 or R1.4 before it can be updated to R1.5.x. Attempting to upgrade an R1.0/R1.1 phone directly to KitKat (R1.3, R1.4 or R1.5) will display an error message during the update process and the update will not be applied (the phone will still run the previous version after rebooting). The *Spectralink 87-Series Wireless Telephone Administration Guide* thoroughly covers the updating and downgrading process.

See the R1.3 chapter in these release notes for more information.



Caution: There is no downgrade path below 1.3

The Android™ operating system is not designed by Google to provide a downgrade path between major versions. Release 1.5, 1.4 and 1.3 use Google KitKat®. Once a phone is upgraded from R1.3 to release R1.4 or R1.5, it can be downgraded to R1.3 but not to an earlier version i.e. R1.2 or before.

New Features

Handset

- WMM-AC Support.



Caution: Update phones to R1.5 before configuring APs for WMM-AC

Update the handsets to R1.5 before you enable WMM-AC on the access points. Because earlier version code does not recognize WMM-AC, the handsets will not properly connect to the wireless LAN and any wireless traffic may fail.

- Call Server Failover/Redundancy
- Added an advanced wireless tuning parameter to increase roaming aggressiveness in certain environments. This setting should be left at its default unless advised by Spectralink support personnel. Improper setting of this parameter can negatively impact battery life of the handset.

CMS

- Added filter capability to device list
- New improved upgrade mechanism
- Streamlined phone extension CSV import mechanism

SLIC

- Enhanced .apk installation to be faster and done in the background.

Fixed issues

Handset

<i>Ref</i>	<i>Description</i>
P-1837	Picked up Google security patches for Kitkat
T-2026	Pivot Web API DeviceInformation Phone State Poll was reporting null extension number
T-1999	Phone was not using the Web API Server Root URL if configured
T-1988	Services that declared START_STICKY were not being restarted automatically if they crashed, stopped by the user, or were removed by the system due to memory requirements.
T-1977	SIP was not re-registering when IP address change detected

<i>Ref</i>	<i>Description</i>
T-1964	Call forward setting was being cleared after a power cycle
T-1956	Sometimes syslogs were not being seen on Syslog Server after a Level Change from Debug to Info
T-1955	Sometimes phones that appeared to be registered to SIP weren't able to make or receive calls.
T-1951	Emergency pop-up and in-ear alert for PTT was not being displayed while in a SIP conference call, then the conference call was sometimes dropped.
T-1946	SlnkXMLServer sometimes crashed when the timezone was changed
T-1941	Google Chrome current release no longer causes phone to crash
T-1935	When using the SIP log in/log out feature, if the user logged out of a phone they were not immediately prompted to login unless they left and re-entered the dialer
T-1933	Phone failed re-registration while in call and after coming back into range, it cannot place another call
T-1911	Disabling and then re-enabling SIP did not clear out the log in / log out SIP credentials
T-1908	In some cases, the SLIC Wizard on the phone crashed
T-1892	In some cases, WPA2-PSK networks were not re-joined when back in range if the phone was moved out of range
T-1891	Bluetooth required a reboot in order to turn Bluetooth On.
T-1852	Phone didn't display a second (critical priority) push notification when screen was off.
T-1798	[Cisco] No ringback on phone blind transferred to another destination when not using SIP standard hold signaling
T-1752	PTT got stuck transmitting if you leave and re-enter wireless coverage
T-1739	+' was being stripped from directory selected contact when populated in dialer
T-1734	Syslog service required a reboot to start working when sent from CMS
T-1701	[Cisco] - Reregistration with address change failed
T-1698	Syslog file algorithm on handset changed to match existing syslog standard
T-1691	[Cisco] There was no ringback on a phone blind transferred to a PSTN destination
T-1678	Display now turns on when phone is plugged in or unplugged from a USB charging source
T-1587	CMS Inactivity timeout was not defaulting to 300
T-1497	Quick settings in notification bar did not take user to correct settings menu
T-1485	Polling interval setting was not downloading OTA file
T-1392	Sometimes syslog service did not apply new settings via CMS until service is toggled
T-1369	Phone UI was not updating to show calling state when the phone was placing a call and was currently forwarded

<i>Ref</i>	<i>Description</i>
T-1367	If user was out of range or the phone registration had expired and user attempted an Emergency call, the call failed with no notification to the user of the cause of the failure
T-1355	Display remained on indefinitely if on Emergency Call screen - the display now times out and turns off
E0580	Not roaming (standby) as expected and affecting the Engage application performance
E-0571	Could not advance past importing .csv file with SLIC

Known issues

Handset

<i>Issue</i>	<i>Description</i>	<i>Workaround</i>
P-2076	When using WMM-AC, enabling access-control for Voice (AC-VO) only can lead to loss of performance on some access points.	Enable access control both for Voice (AC-VO) and VIDEO (AC-VI) which is used for call control.
T-2022	Phone retries registration after digest authentication fail or 500 responses	
T-2020	Sometimes after attempting to apply OTA update, the phone may end up in recovery mode - rebooting the phone will fix the problem and the upgrade will complete	
T-2011	The phone sometimes sends multiple option requests to the same server when multiple servers are specified	
T-2001	[Cisco] - Directed Call Park using blind transfer fails	
T-1975	SLIC will not load APKs onto Pivot if the APK has a space in the filename	
T-1906	At first boot or at factory default the Google Wizard shows an Emergency Call button. Even though touching it brings up a dialer, the phone is unable to dial an emergency call at that point because Wi-Fi is not set up.	Admins are expected to configure Wi-Fi and other phone parameters so final users are not confused by this inability to make emergency calls.
T-1890	Manually added Wi-Fi SSID cannot be connected to until the handset is rebooted	
T-1814	Should display a toast when preventing the display of an item behind the admin menu	
T-1612	Chrome populates in the right most hot-seat at the bottom of the home screen in 1.3, but not for updates or in 1.4/1.5.	Chrome can be placed manually in the desired position.
T-1561	The phone now supports DRM and will play some DRM protected content. Certain content will not play if it requires a level of DRM higher than that supported by the phone.	
T-0169	“Scanning always available” option is now always on.	

<i>Issue</i>	<i>Description</i>	<i>Workaround</i>
P-117	PIVOT WEB API Close Browser call may have a race condition -	wait 5 seconds between triggering a Close Browser call and sending a new push to the phone
P-116	If the username for PTT is left blank, no audio plays.	
P-105	SLIC toast keeps popping, even if SLIC app is in background	this is by design to let the admin know that adb is still enabled. Switch to the SLIC app using the Task Switcher and close SLIC.
P-081	window.location.replace({URL}); does not work when run in SLNK Webview	
E-561	Fixes underway pertaining to echo being heard at the far end under some conditions.	
	OTA update file is much larger than previous versions because it contains Google applications. The OTA download will take longer.	
	After an update the phone can stay black for several minutes before displaying the lock screen.	
	PIVOT will no longer offer certain unsupported Bluetooth devices for pairing	
	Proper operation is not guaranteed when the phone doesn't have access to an NTP server (standard Google one over the Internet, or NTP server)	

CMS

<i>Issue</i>	<i>Description</i>	<i>Workaround</i>
C-166	Existing Web API URLs are discarded when adding a new one	
C-165	Some settings don't seem to be saved after a push of the settings to the phones unless the web page is refreshed after the push	
C-163	can select both "none" and "all" under Web API Event URLs - don't do this	
C-162	Firefox does not work correctly with the CMS sometimes - We recommend using Chrome or Safari for now	
C-154	PTT and Web API settings are not represented correctly in checkboxes after pushing settings.	
C-152	When cloning a phone for RMA, the new phone doesn't get named the same as the old phone	
C-142	Battery level is still displayed on inactive devices when CMS no longer really knows their battery level	
C-131	Quick Barcode Connector config settings not behaving	

<i>Issue</i>	<i>Description</i>	<i>Workaround</i>
C-128	In "configure device(s)", some phones may load/save configurations much more slowly than others	
C-120	IE is not a supported browser with CMS	
C-110	Filter by Groups in device list does not work correctly	

Chapter 8: PIVOT Software 1.4.x

Current release information

This release includes these software versions:

- Handset Version: 1.4.0.9980
- CMS Version: 1.3.37 (No change from previous release)
- SLIC Version: 3.41

Your Spectralink support representative will guide you through software release installations as needed.

Important update information

The R1.4.x release is a significant update as it add the Google Mobile Services (GMS) Framework and Google Applications to Pivot. This includes adding support for Google Cloud Messaging (GCM) which is often used by Android app developers for communicating from the cloud to a device.

Note that to take advantage of GMS and most Google applications, the Pivot handsets must be installed with access to the Internet.

Updating to version 1.4.x

A handset must be running R1.3 before it can be updated to R1.4.x. Attempting to upgrade an R1.0/R1.1 phone directly to KitKat (R1.3 or R1.4) will display an error message during the update process and the update will not be applied (the phone will still run the previous version after rebooting). The *Spectralink 87-Series Wireless Telephone Administration Guide* thoroughly covers the updating and downgrading process.

See the R1.3 chapter in these release notes for more information.



Caution: There is no downgrade path below R1.3

The Android operating system is not designed by Google to provide a downgrade path between major versions. Release 1.4 and 1.3 use Google KitKat®. Once a phone is upgraded from R1.3 to release R1.4, it can be downgraded to R1.3 but not to an earlier version i.e. R1.2 or before.

New Features

Handset

- Google™ Certification. The boot logo has been updated to show official Google support.
- This version ships with Google apps and the Google framework. It also supports Google Mobile Services (GMS). You can now offer end-users the complete Google experience or any part of it including Google Accounts, Google Play™ Store, Google Now™, and the multitude of free Google apps, a selection of which are installed by default.
- Android applications that require Google Cloud Messaging now will work on Pivot. This includes many MDM/EMMs as well as instant messaging applications.
- The OTA file is too large to be downloaded by R1.2. You must update to R1.3 first. Upgrading will increase the size available for the next download, allowing the download of R1.4.
- After the first boot, the phone will offer a choice to configure the phone through the SLIC device or through the classic Google Wizard. Spectralink recommends using SLIC (v3.41 or higher must be used with R1.4) to configure wireless settings for a far more efficient deployment.
- The Google wizard provides the option to back up the device to the cloud using the Google account. The presentation of this backup option is mandated by Google, but you do not have to select it.
- Users can access Google Now™ by swiping up from the bottom of the screen on a home screen.
- Voice prompts (hotwords) such as “OK Google” to activate Google Now can be used.
- Voice search (e.g. when clicking the microphone icon on the search widget)
- Out of the factory, the first home screen has two default google icons -- a Google Collection folder that opens the Google applications launcher, and a Google Play Store icon that opens the Google Play Store. The admin can remove the icons, or can completely disable the Play Store and Google applications in the Admin settings or SLIC. Note that disabling the Play Store will have impact on getting updates to the Google Framework.
- The default leftmost icon in the Favorites tray at the bottom of the home screen will now always be the SIP Dialer icon, even if Spectralink SIP is disabled.
- The Location setting is now in the user settings; it is no longer part of the Admin settings.
- If enabled, the location of Pivot can be tracked by MDMs.
- The Wi-Fi Optimization option has been removed from the advanced Wi-Fi menu, the phone is automatically put in the best state for power saving. (T-1647)

- Bluetooth support can now be enabled by the administrator (**Settings> Admin Settings> More> Show user Bluetooth**). However only Mobile Point of Sale (mPOS) devices are supported. Other devices (e.g. headsets) are not supported at this time. (T-1479)
- The phone no longer needs to reboot when the SIP application is enabled or disabled.
- Allows installation of Android APKs on the handset via SLIC v3.41+.

CMS

- No new CMS version is required to support R1.4.

SLIC

- SLIC now supports installing of Android APKs on R1.4.x handsets. This is very useful for loading MDM/EMM Agent applications.
- SLIC offers options to disable the Google Play Store and/or Google Chrome during initial deployment.

Fixed issues

Handset

<i>Ref</i>	<i>Description</i>
E-561	The other end may have heard echo after some time on long calls
T-1515	802.11n can be disabled, if needed, on the phone, via SLIC or via the CMS
T-1530	Widgets are not supported on the lockscreen due to security concerns
T-1693	Phone restored to factory defaults showed black screen for close to a minute
T-1783	OTA Firmware polling was not working
T-1692	[Cisco] Phone was (rarely) not audibly ring if a new call is received after hanging up a transferred call

CMS

There is no new CMS release for this handset software release.

Known issues

Handset

Ref	Description	Workaround
T-1941	PIVOT ships with the set of Google applications that we have tested and approved, including Chrome. However, because Google updates their applications frequently we cannot always test with the latest version by the time it is released and in some cases it may create incompatibilities with the product. Google has released a new version of Chrome (v40 and subsequent) which does not function properly on PIVOT.	Do not permit updates to Google Chrome until further notice. Disable Chrome, disable Chrome updates or disable Google Play. See associated Tech Bulletin for details.
	This release does not support Microsoft Lync app.	We currently support Lync only through PIVOT version 1.2 with MS Lync 2013 and app version 5.3.1100 for feature interoperability. For full interoperability with PIVOT V1.3.x, we are awaiting a new compatible Lync software release from Microsoft.
	The Android operating system is not designed to provide a downgrade path between major versions. Once a phone is upgraded to release R1.3.x, it cannot be downgraded.	Vet R1.3.x or R1.4.x on test handsets before deploying.
	A handset must be updated to R1.2 before it can be updated to R1.3.x or R1.4.x. Attempting to upgrade an R1.0/R1.1. phone directly to R1.3.x or R1.4.x will display an error message during the update process: *** Error: This update requires R1.2 *** Installation aborted	Update to R1.2 first. Reboot the phone if you get the error message. It will be operational.
	As is usual when upgrading to a newer version of Android, the mix of applications shipped with the update varies. If the user had icons on their home screen for apps that were removed in this release, those icons will appear as "green android" icons	Remove the green android icon for non-existent applications and replace those with their updated replacement (e.g. Google Play Music for the removed Music Player), or download the app from the market if available.
	The phone displays "Network may be monitored by an unknown third party" when using self-signed certificates for Wi-Fi or SSL security. This warning is required by Google.	Educate users that this message is normal. The notification can be dismissed after each boot.
T-1287	Excessive buffering may occur while playing YouTube videos	
T-1461	Phone shows discovered networks on all bands, even those that may be disabled.	If choosing to associate to a network manually on the phone, make sure you only choose a network on a band that is enabled.
T-1470	Default PTT channel list includes channels with transmit off	Ensure the user is subscribed to the default channel and can transmit on it.

<i>Ref</i>	<i>Description</i>	<i>Workaround</i>
T-1480	Editing Wireless Profiles may cause the screen to be stuck	If this happens, wait for the handset to respond.
T-1503	Barcode Successful Read tone logs an audio error	Ignore this harmless error.
T-1505	Phone screen may go black for about one second when resuming from a hold	
T-1571	SAFE Running Alarm can be cleared while the phone is Locked	
T-1585	Phone stops transmitting PTT upon receiving a notification	Release and re-press the PTT button and continue your transmission.
T-1629	Power button end call option in Accessibility menu does not work with the Spectralink SIP application	
T-1632	After a certificate is removed from the Android menus, it still appears on the Wi-Fi dropdown list	See Admin Guide
T-1636	USB ports on PC stop working after pulling the USB cable from a phone. PC crashes.	Intermittent and rare. Do not pull the battery while phone is connected to PC. We recommend using a powered hub between phone and computer.
T-1662	Importing CMS data breaks login	The export feature does not work properly in CMS 1.2. It is fixed in 1.3.x but it means that you cannot export your 1.2 data and import it into 1.3.x.
T-1671	SIP registration produces a failure during time check	Ignore the notification and wait while the handset connects.
T-1675	Configured values do not persist through upgrades for 1.0 phones	Upgrade the phones to 1.3.x before adding them to groups or attempting to configure settings on them.
T-1697	The syslog.txt file may display as 0 bytes in MTP (Microsoft Transfer Protocol) and be empty.	Use adb to pull the syslog.txt file.
T-1718	SAFE may require a reboot after changing monitoring modes	Reboot phone
T-1727	Apple headset microphones do not work	Use Android headsets.
T-1739	The + is stripped from directory selected contact when populated in dialer	Manually add it to the number before dialing if it is required.
T-1752	PTT continues to transmit upon re-entry to the wireless coverage area without a key press if you 1) exit the covered area with the PTT key pressed in and then 2) release the key outside of the covered area, and then 3) return to the covered area	
T-1763	If SAFE is disabled and re-enabled, the SAFE status bar icon does not display until a reboot	Reboot phone

<i>Ref</i>	<i>Description</i>	<i>Workaround</i>
T-1791	PTT audio not playing after putting a SIP call on hold and opening the PTT app	Tap the PTT notification to select the PTT call.
T-1792	Phone in call forwarded state does not update its UI to reflect calling and in-call states	
T-1803	Call placed or received during PTT countdown (wait period) while also roaming might not have audio in either direction	
T-1871	PTT audio transmission fails if user tries to transmit immediately after being on a SIP call.	Wait until the PTT transmission timeout completes before attempting to transmit.
T-1892	Rarely the phone does not reconnect to a WPA2-PSK network after being out of range for less than two minutes.	
T-1901	Echo canceler may lose convergence	Reduce the volume level on the call temporarily.
T-1915	PIVOT occasionally disconnects from a WLAN for a few seconds, then reconnects.	
T-1921	Bluetooth Available Devices displays devices for Profiles that Pivot will not support. Pivot will pair with those devices and performance may be poor.	User should only choose and pair with mPOS devices at this time.
T-1926	Audio Flinger service is logging buffer overflows at the warning level every time a call is made.	Ignore these messages. The do not indicate a problem in the audio.
T-1956	If the logging level for the Syslog service is changed the Syslog service, or the phone, must be restarted for the change to take effect.	Restart the phone if needed.
T-1973	Band setting not effective until power cycle or airplane mode toggle.	When changing the band setting, reboot the phone.
T-1982	Standard hold signaling does not configure using the .csv file.	Configure this option manually or in CMS.
<i>Interoperability issues</i>		
T-0985	[Avaya CS1k] Blind transfer can result in the transferred phone on hold until the far end answers	
T-1086	[Avaya Aura] Conference audio may be garbled when using G.722.	Disable G.722
T-1744	[Mitel] Phone may not re-subscribe on SIP account changes on Mitel call server	
T-1767	[Avaya Aura] [Cisco UCM] [Mitel] MWI Notifications can get out of synch	Reboot the phone to get messages back in sync.
T-1691	[Cisco] No ringback on a phone blind transferred to a PSTN destination	

<i>Ref</i>	<i>Description</i>	<i>Workaround</i>
T-1782	[Cisco UCM] Cannot end a held call if the far end is not responding (i.e. it has been turned off while it was on hold or goes out of range)	
T-1793	[Mitel] Blind transfer to a call forwarded phone does not connect	
T-1830	[Cisco] Sometimes initiating a conference to a deskset causes the deskset to receive a Synchronization source IDs that it regards as improper, which may lead to audio issues on the deskset.	

CMS

<i>Ref</i>	<i>Description</i>	<i>Workaround</i>
T-1687	Server not sending Enterprise settings to newly connected phone	Reboot the phone
T-1796	“Clear this configuration” button” behaves differently for Wi-Fi profiles than for other settings. Needs special handling when device configuration is cleared and group configuration should be used instead.	To get the Wi-Fi profiles group setting to apply when clearing a configured button at the device level: 1) at device level click Clear configuration button, 2) <u>do not</u> click save/send, and then 3) open the group and save it.
T-1920	CMS 1.3.37 SIP Service Settings states that “Enabling or Disabling SIP will force a phone reboot”.	The phone no longer reboots on this setting change. Please ignore this message on the CMS for the time being.

Chapter 9: PIVOT Software 1.3.x

Current release information

This release includes these software versions:

- Handset Version: User build 1.3.0.8654
- CMS Version: 1.3.37
- SLIC Version: 3.37

Your Spectralink support representative will guide you through software release installations as needed.

Important update information

The R1.3.x release is a significant update as it moves the PIVOT platform from Android OS 4.1.2 to Android 4.4.2 (KitKat).



Caution: There is no downgrade path

The Android operating system is not designed by Google to provide a downgrade path between major versions. Once a phone is upgraded to release R1.3.x, it cannot be downgraded.

Updating to version 1.3.x

A handset must be updated to R1.2 before it can be updated to R1.3.x. Attempting to upgrade an R1.0/R1.1 phone directly to KitKat will display an error message during the update process and the update will not be applied (the phone will still run the previous version after rebooting).

In order to facilitate updating older phones, the R1.3.x release package contains two over-the-air update files: ota-update.bin contains the R1.2 upgrade and ota-update-override.bin contains the R1.3.x update. Phones will automatically pick up the proper update, so that older handsets will upgrade to R1.2 first, then pick up R1.3.x. See the *Admin Guide* for complete instructions.

New Features

Handset

- Google Android Operating System upgrade to version 4.4.2 “KitKat”
- Many security underlying fixes and improvements inherited from the newer Android
- The handset wireless meets upgraded standards ETSI EN300 328 v1.8.1 and EN 301 893 v1.7.1

- Screen resolution changed to 213 DPI for better Google compatibility
- For security, adb (the Android Debug Bridge over USB) is disabled by default (can be re-enabled by the administrator in Developer Options)
- Standard notifications icons are now white, per Google UI guidelines, unless they indicate a problem. Note that third party apps' notification icons may not follow this guideline.
- Android now offers a choice to select which wireless frequency bands to operate in (default: both)
- New setting to enable IPv6 awareness to improve compatibility with IPv6 aware applications. This is a departure from previous releases where IPv6 awareness was unconditionally disabled. IPv6 wireless networks are still NOT supported, and this settings should be set to off if networking problems are observed.
- The SIP application is disabled by default. When enabled (manually or through CMS), the corresponding icon will be populated at the bottom of the screen.
- Text-To-Speech is configured by default and no longer requires downloading additional language files.
- The device no longer counterfeits having a camera. This means that applications that rely on having a camera (e.g. Microsoft Lync voice calling) will not work properly or may not work at all.
- Handset now offers an API allowing third party applications to take advantage of the platform's buttons
- Handset now offers an API allowing third parties to take advantage of Spectralink's Quality of Service (QoS) enhancements to the platform
- The API allowing third parties to receive data from the barcode reader has been updated
- Phones will require v1.2 to be running before they will upgrade to v1.3.x. An error message notifies the user of this requirement.

CMS

- Support for R1.3.x/KitKat added
- Additional file checks on the OTA file. In particular CMS will ensure that only compatible files are presented to the phone, i.e. a phone running a version earlier than R1.2 will not be sent an R1.3.x update, as the phone needs to be upgraded to R1.2 first (see known issues).
- New setting to choose which wireless frequency band to enable
- New setting to setting to enable/disable IPv6 awareness
- New setting to enable/disable 802.11n support
- New settings to set up a proxy in wireless profiles

- Feature license management, OTA, CSV import, move configuration, and password have better validation and improved UI messages.
- New (configurable) settings to prevent the phone from notifying users that it found an open network

SLIC

- New SLIC experience: you must boot the phone to Android and click the Connect to SLIC icon to connect to the SLIC device when the factory load is 1.3.x.

Fixed issues

Handset

<i>Ref</i>	<i>Description</i>
T-0429	Registration does not take place immediately when correcting invalid credentials - leading to confusion
T-0454	Phone displays camera app
T-0709	MWI Notifications can be missed
T-0858	If registration fails and the notification is cleared, even if SIP account settings are cleared and re-submitted, another failure notification is not received - TC19397
T-1163	PTT fails to show audio statistics
T-1407	Settings crash when opening Admin settings
T-1440	Phone crashed when trying to call using Direct Dial widget

CMS

<i>Ref</i>	<i>Description</i>
T-1424	All phones in a modified Group will now receive full configuration on heartbeat CSS padding error causing input text to be cut off fixed
T-1261	Device Manager no longer displays two popups reminding the user to select a device

Known issues

Handset

<i>Ref</i>	<i>Description</i>	<i>Workaround</i>
	This release does not support Microsoft Lync app.	We currently support Lync only through PIVOT version 1.2 with MS Lync 2013 and app version 5.3.1100 for feature interoperability. For full interoperability with PIVOT V1.3.x, we are awaiting a new Lync software release from Microsoft which is expected at the end of November 2014. At that point, we will begin the verification testing.
	Encrypted phones cannot be upgraded to R1.3.x, although they can be encrypted after update.	Back up personal data, perform a reset to factory defaults to remove encryption, upgrade the phone. The phone can then be re-encrypted.
	The Android operating system is not designed to provide a downgrade path between major versions. Once a phone is upgraded to release R1.3.x, it cannot be downgraded.	Test R1.3.x on test handsets before deploying.
	A handset must be updated to R1.2 before it can be updated to R1.3.x. Attempting to upgrade an R1.0/R1.1. phone directly to R1.3.x will display an error message during the update process: *** Error: This update requires R1.2 *** Installation aborted	Update to R1.2 first. Reboot the phone if you get the error message. It will be operational.
	The search widget displays a microphone icon, but pressing it has no effect, voice search not available on PIVOT R1.3.x	
E-561	The other end may hear echo after some time on long calls, this issue is to be fixed in a future release.	Echo can be mitigated by lowering the volume on your PIVOT handset or by using a headset for long calls.
T-1287	Excessive buffering may occur while playing YouTube videos	
T-1447	No Native Dialer available on KitKat when SIP is disabled	None. Android KitKat design.
T-1461	Phone shows discovered networks on all bands, even those that may be disabled.	If choosing to associate to a network manually on the phone, make sure you only choose a network on a band that is enabled.
T-1470	Default PTT channel list includes channels with transmit off	Ensure the user is subscribed to the default channel and can transmit on it.
T-1480	Editing Wireless Profiles may cause the screen to be stuck	If this happens, wait for the handset to respond.
T-1503	Barcode Successful Read tone logs an audio error	Ignore this harmless error.

<i>Ref</i>	<i>Description</i>	<i>Workaround</i>
T-1505	Phone screen may go black for a about one second when resuming from a hold	
T-1515	802.11n is not disabled by default	If issues occur, disable 802.11n through CMS, phone Admin menu, or SLIC.
T-1530	Not able to add widgets to lock screen	
T-1571	SAFE Running Alarm can be cleared while the phone is Locked	
T-1572	The phone icon may not be populated in the Favorites bar when SIP is turned on	Reboot the phone and the phone icon will show up.
T-1585	Phone stops transmitting PTT upon receiving a notification	Release and re-press the PTT button and continue your transmission.
T-1629	Power button end call option in Accessibility menu does not work with the Spectralink SIP application	
T-1632	After a certificate is removed from the Android menus it still appears on the Wi-Fi dropdown list	See Admin Guide
T-1636	USB ports on PC stop working after pulling the USB cable from a phone. PC crashes.	Intermittent and rare. Do not pull the battery while phone is connected to PC. We recommend using a powered hub between phone and computer.
T-1662	Importing CMS data breaks login	The export feature does not work properly in CMS 1.2. It is fixed in 1.3.x but it means that you cannot export your 1.2 data and import it into 1.3.x.
T-1671	SIP registration produces a failure during time check	Ignore the notification and wait while the handset connects.
T-1675	Configured values do not persist through upgrades for 1.0 phones	Upgrade the phones to 1.3.x before adding them to groups or attempting to configure settings on them.
T-1693	After a "Restore to Default" the phone may display black screen for almost a minute upon boot up	
T-1697	The syslog.txt file may display as 0 bytes in MTP (Microsoft Transfer Protocol) and be empty.	Use adb to pull the syslog.txt file.
T-1718	SAFE may require a reboot after changing monitoring modes	Reboot phone
T-1727	Apple headset microphones do not work	Use Android headsets.
T-1739	The + is stripped from directory selected contact when populated in dialer	Manually add it to the number before dialing if it is required.
T-1752	PTT continues to transmit upon re-entry to the wireless coverage area without a key press if you 1) exit the covered area with the PTT key pressed in and then 2) release the key outside of	

<i>Ref</i>	<i>Description</i>	<i>Workaround</i>
	the covered area, and then 3) return to the covered area	
T-1763	If SAFE is disabled and re-enabled, the SAFE status bar icon does not display until a reboot	Reboot phone
T-1783	OTA polling does not work	Check for update in Admin menu or use CMS to trigger a check. The phone will also check at the next boot.
T-1791	PTT audio not playing after putting a SIP call on hold and opening the PTT app	Tap the PTT notification to select the PTT call.
T-1792	Phone in call forwarded state does not update its UI to reflect calling and in-call states	
T-1803	Call placed or received during PTT countdown (wait period) while also roaming might not have audio in either direction	
<i>Interoperability issues</i>		
T-0985	[Avaya CS1k] Blind transfer can result in the transferred phone on hold until the far end answers	
T-1086	[Avaya Aura] Conference audio may be garbled when using G.722.	Disable G.722
T-1767	[Avaya Aura] [Cisco UCM] [Mitel] MWI Notifications can get out of synch	Reboot the phone to get messages back in sync.
T-1691	[Cisco] No ringback on a phone blind transferred to a PSTN destination	
T-1692	[Cisco] Phone (rarely) may not audibly ring if a new call is received after hanging up a transferred call.	Set phone to always vibrate on incoming calls.
T-1782	[Cisco UCM] Cannot end a held call if the far end is not responding (i.e. it has been turned off while it was on hold or goes out of range)	
T-1830	[Cisco] Sometimes initiating a conference to a deskset causes the deskset to receive a Synchronization source IDs that it regards as improper, which may lead to audio issues on the deskset.	
T-1744	[Mitel] Phone may not re-subscribe on SIP account changes on Mitel call server	
T-1793	[Mitel] Blind transfer to a call forwarded phone does not connect	

CMS

<i>Ref</i>	<i>Description</i>	<i>Workaround</i>
T-1687	Server not sending Enterprise settings to newly connected phone	Reboot the phone
T-1796	“Clear this configuration” button” behaves differently for Wi-Fi profiles than for other settings. Needs special handling when device configuration is cleared and group configuration should be used instead.	To get the Wi-Fi profiles group setting to apply when clearing a configured button at the device level: 1) at device level click Clear configuration button, 2) <u>do not</u> click save/send, and then 3) open the group and save it.

Chapter 10: PIVOT Software 1.2.x

Release Notes for the Spectralink 87-Series software document issues affecting the current release of the code—including fixes, enhancements and new Features.

This release includes licensable features. You will not be able to take advantage of new Features unless you have purchased and installed one or more licenses to use them.

Current release information

This release includes these software versions:

- Handset Version: 1.2.0.6893
- CMS Version: 1.2.11
- SLIC Version: 3.25

Your Spectralink support representative will guide you through software release installations as needed.

Features and Enhancements

The 1.2.x release for the Spectralink 8700 is a “maintenance release” and therefore it does not include major feature enhancements. It only includes minor enhancements and bug fixes.

Minor enhancements

- Feature Licensing is now assigned exclusively by phone group
- Added ability in the CMS to delete a setting from a Device, Group or Enterprise level
- Battery color on CMS now matches phone battery color showing battery state
- Enterprise, Group and Device level tabs and settings are now color coded to make it easier to identify the level of a setting
- The Phone Owner Info is now controllable from the CMS
- You can now clear the call log on a phone
- The Phone extension is now displayed in a sticky SIP registration notification as well as in the background of the phone dialer
- The CMS navigation breadcrumbs have been reworked to reduce complexity
- The Spectralink Volume setting is now renamed to Spectralink Web API Volume
- Includes updates to latest versions of EN 300 328 and EN 301 893
- New SAFE and Panic Button icons

Fixed Issues

Reference	Fixed issue
T-0284	The call forwarded popup no longer briefly pops when a forward occurs.
T-0293	The phone now logs SIP registration failures at the Info level.
T-0342	The handset's extension number is now displayed in a sticky notification as well as in the background on the phone dialer screen.
T-0381	The Prepend MAC setting is now read-only and is always set.
T-0611	The push alert notification now shows the highest priority push message priority.
T-0614	The Alertview is no longer being launched for non-critical priority Web API pushes.
T-0633	The Barcode beep is now set to the default of Barcode Beep.
T-0718	Fixed some interoperability issues with the DeltaPath call server.
T-0728	The user can now adjust the volume of a phone call when the phone is at the ear.
T-0772	Finished the translations of some phrases in the Spectralink Alertview and Webview.
T-0824	The in-ear tweedle is no longer being played for incoming Web API pushes regardless of push priority during a phone call.
T-1028	The corrupted display that occurred sometimes after hanging up an LDP no longer occurs.
T-1051	Now the SIP field names for the CSV import template match the field names on the phone settings screen and the CMS, more or less.
T-1092	The LED now correctly turns on and off for failed SIP registration notifications.
T-1104	The crash that sometimes occurred when the phone app receives a 486 message from a CS1K no longer happens.
T-1150	You can now Modify and Save a Network Profile for a successful authentication without forgetting it first.
T-1189	A PTT call now stays ignored correctly.
T-1205	The phone now correctly probes networks on DFS channels, even if all the SSID's are hidden.
T-1206	Audio on received PTT broadcasts is clear even when the browser is also in use.
T-1229	In the CMS, the Wi-Fi Profile Add wireless profile now refreshes properly when you change the EAP method selection.
T-1240	The incorrect PTT audible notification during a SIP call when no PTT call was actually present no longer occurs.
T-1245	The charger disabled state no longer occurs.
T-1253	CMS now assigns feature licenses to groups and it is easy to tell which phone has which feature license installed.
T-1254	Installed Feature Licenses are now labeled.
T-1255	The Tilt SAFE notification is no longer incorrectly labeled as "Man Down".
T-1267	Fixed a problem editing Phone groups in CMS on v1.1.66.
T-1275	PTT was not playing the last 1.2 seconds of transmitted audio due to a system time lag. This time lag has been greatly reduced.
T-1278	On the CMS, the CA Certificate field is no longer shown when saving and editing a WPA2-Enterprise network to change it to WPA2-PSK.
T-1293	After a PTT trial license times out and a permanent license is entered, the phone is now able to transmit immediately.

<i>Reference</i>	<i>Fixed issue</i>
T-1295	Announced transfer on the CS1K now works correctly.
T-1296	In PTT when you switch to an Emergency PTT from a Priority PTT, the PTT now shows that the Emergency channel is selected.
T-1309	A Web API Critical Tel URI push to a phone that is already in a call puts the call on hold and places the call to the correct extension.
T-1312	On the CMS, Adding Telephone Event Notifications removed previous configuration.
T-1314	Sometimes the bottom entries on a CMS page were not visible, now they are.
T-1336	Emergency PTT that arrives during a normal PTT call timeout will pop up the emergency call UI.
T-1344	The LED blinks correctly for new notifications.
T-1376	Phone probed more than one network on DFS channels if all SSID's are hidden, but did not try to associate.
T-1412	Sometime phone call audio was not heard when PTT call was ongoing

Known Issues

The following issues are known to be present in the current release. They will be reviewed for possible fix in a future release if no reasonable work-around is available.

<i>Reference</i>	<i>Description</i>
T-0014	A/D credentials are still allowed on CMS after A/D user is no longer active. Workaround: Remove the A/D user from the CMS users list
T-0165	When using USB on Windows 7, the PC may report "Device not Recognized" even though the PC can still communicate with the handset
T-0177	AudioCodes gateway – Caller ID is not available
T-0429	Avaya Aura and CS1k – Registration does not take place immediately when correcting invalid credentials
T-0454	Applications that attempt to access a camera will display an error.
T-0677	After modifying security settings, the handset may not connect to the wireless network. This is not unusual with Android devices and the customary fix is to toggle the wireless off/on
T-0709	Message Waiting (MWI) Notifications may not synchronize at power on.
T-0789	Phone Admin menu: Telephony Event UI settings screen does not update after changes are made
T-0831	Phone will not connect to an infrastructure that has the Admission Control Mandatory bit(s) set in the APs
T-0835	AudioCodes gateway – Call Reject destination is not available
T-0858	If registration fails and admin clears the notification and then changes the SIP account settings and re-submits them, another failure notification will not be received if registration fails again
T-0878	A phone manually connected to an SSID from the handset menu too soon after boot may crash: Workaround: reboot phone and wait longer
T-0912	Avaya CS1k – Caller ID does not update after a transfer
T-0956	The ringer volume can't be adjusted with a headset plugged in
T-0962	Windows 7 complains that the USB could be faster in a USB 2 port. This is normal windows behavior, see http://www.makeuseof.com/tag/usb-speederror/
T-0985	Avaya CS1k – Blind transfer can result in the transferred phone on hold until the far end answers

<i>Reference</i>	<i>Description</i>
T-1011	Cisco ACS 4.x does not support the Spectralink device certificate for handset authentication on EAP-TLS. Workaround: use a later ACS version, or use your own device certs. See Spectralink 87 Series Wi-Fi Security Implementation Guide for complete information.
T-1030	Switching between audio terminations (headset, rear speaker...) is not instantaneous
T-1096	After changing the destination for Telephone Event notifications, they are still sent to the old address.
T-1144	The phone may be “stuck” at the red LED after a reboot or restore defaults Workaround: Remove battery, wait 30s, then re-insert the battery
T-1163	PTT fails to show audio statistics in output log
T-1201	Sometimes an over-the-air update results in the handset reporting “signature verification failed”. Workaround: restart the update
T-1248	Phone receiving PTT call – audio is interrupted by an offered SIP call
T-1249	Phone transmitting PTT call – Transmit is interrupted by an offered SIP call
T-1261	CMS – Device Manager displays two popups reminding the user to select a device
T-1277	Under certain circumstances, EAP-TLS will connect even though the server certificate is expired
T-1332	SIP Notification may show the wrong extension number until the phone is restarted if extension is changed.
T-1335	Ringtone volume settings not always retained between calls.
T-1343	Sometime PTT audio is choppy.
T-1347	The user may be asked to restart a trial license of an app after the trial has already expired.
T-1355	If the user navigates to the Emergency Contacts screen the screen will not dim.
T-1358	Sometimes local contact name is not overriding the PBX delivered name.
T-1360	Even after removing the SIP Server address from the phone, if you don't put another address in, the phone will not unregister.
T-1363	RTCP cumulative lost packets does not match missed packets reported by the phone.
T-1367	If the handset is out of Wi-Fi range or registration has expired and the user attempts to make an Emergency call, the call fails without displaying a pop-up.
T-1368	There is no indication in the idle screen when the phone is in the forwarded state.
T-1369	The phone may not show correct calling state if you place a call from it while it is forwarded until the proximity sensor turns the screen off and back on.
T-1374	Trial Expired toast is displayed after a permanent License Key is removed. A new trial is offered but does not work.
T-1377	If & < and > are used in fields from the CMS they may be corrupted after being sent to the phone. See the CMS Documentation for more information.
T-1383	Using CMS you can create a PTT channel name longer than 15 characters which will be truncated on the handset. Limit channel names to 15 characters or less
T-1384	Using CMS you can unsubscribe to the default PTT channel. Ensure that the default channel is subscribed to.
T-1387	Rarely there is a large delay in pressing keys in the dialer if the phone is very busy doing something else.
T-1390	If in an existing SIP call, the emergency PTT call volume level setting is not used.
T-1394	All Notifications are played at the same volume level in the headset regardless of what notification volume level is configured
T-1395	Phone transmitting PTT fails to use a toast to notify the user when they walk out of range that the service is not available. The status bar does update to show “No Service”.

<i>Reference</i>	<i>Description</i>
T-1397	MSI barcodes are not read correctly.
T-1399	Broadcast DHCP Option not used.
T-1407	Sometimes the settings app will close if invalid default PTT channels are set in CMS.
T-1408	User must manually select the default PTT channel in order to transmit on it after ignoring a PTT call on another channel.
T-1410	No audible event notifications are played during a PTT or SIP call.
T-1414	PTT channel settings configured at the group or enterprise level are not displayed correctly at the device level on CMS.
T-1415	The PTT tone may play mid-call on rare occasions.
T-1417	The Default PTT volume is very low.
T-1421	DNS Name list is processed on power cycle, but not when Wi-Fi is turned off then back on.
T-1423	User can't ignore an incoming SIP call and continue to transmit on PTT.
T-1428	Entry of NTP server requires reboot of phone to update the time, sometimes.
T-1429	Occasionally the phone can become unresponsive when entering the admin password, especially right after first boot after firmware upgrade. Waiting 10 seconds will resolve the issue.
T-1434	In a very busy PTT environment, there is no indication, other than the lack of a PTT start of transmission beep, that all PTT channels are full.
T-1435	Calling Party name not using local contact directory name while call is ringing, but is shown after connection is made.
T-1439	Once connected to an SSID broadcast network, you cannot choose a hidden network.
T-1440	Sometimes the phone app will stop when the user attempts to use a direct dial widget.

Chapter 11: PIVOT Software 1.1.x

Release Notes for the Spectralink 87-Series software document issues affecting the current release of the code—including fixes, enhancements and new Features.

This release includes licensable features. You will not be able to take advantage of new Features unless you have purchased and installed one or more licenses to use them.

Current release information

This release includes these software versions:

- Handset Version: 1.1.0.6017 (4.1.2 build 6017)
- CMS Version: 1.1.66
- SLIC Version: 3.23

Your Spectralink support representative will guide you through software release installations as needed.

Features and Enhancements

Feature Licenses

PIVOT Software Release 1.1.0 introduces Feature Licenses which allow customers to purchase optional features such as Push-to-Talk and SAFE (with or without the Panic button). Feature Licenses offer a 30-day trial period. They are purchased per-handset and are installed on a per-handset basis either manually or through CMS. If you would like to purchase one of these modules, please talk to your Spectralink Reseller.

SAFE

SAFE utilizes the accelerometer and the red Panic button to provide a complete Man Down solution. Fully configured and enabled, the handset will produce motion sensing warnings/alarms (including no movement, tilt and running) and enables the red Panic button on the top of the handset for panic alarms. Both motion and/or panic alarms can be programmed to place an emergency call to a designated number. Motion and Panic alerts can also be pushed to a third party security application for integration into additional safety resources.

Push-to-Talk

The PTT application enables the PIVOT handset to operate in broadcast mode like a walkie-talkie radio. Groups of handsets can be programmed to transmit and receive on certain channels. PTT includes priority and emergency broadcasts to alert the area to important

situations. The application interface provides intuitive functionality and native Android features allows the user to fully utilize PTT.

LED

The LED is now controlled by Android applications. It blinks to notify the user that an application such as email or voicemail has been activated.

EAP-TLS

Wi-Fi security method for WPA2-Enterprise (aka 802.11x) EAP-TLS supports full mutual authentication for the most secure Wi-Fi deployment available. By using the built-in device certificate, users can access the Wi-Fi network without having to unlock the handsets. Preferred deployment is to configure EAP-TLS using SLIC.

Australia homologation

The PIVOT handsets are now fully compliant with Australian certifications and can be imported and used in that country. Handsets will automatically use the correct domain without needing any configuration.

Spectralink Battery Pack authentication

Spectralink products are certified for use only with Spectralink accessories. In order to prevent your PIVOT handsets from using unqualified 3rd party batteries, the handset now validates that the Battery Pack is a genuine Spectralink battery. If it detects an invalid or malfunctioning battery, the handset will show an icon at boot on the left side of the status bar indicating a battery problem and will shut down. To order genuine Spectralink batteries, please talk to your Spectralink reseller.

Heartbleed issue

As of this release, the PIVOT handset is not susceptible to the “Heartbleed” security issue.

Additional enhancements

- SIP TCP capability introduced
- Added ability to choose a private NTP server for phone’s time of day
- Audio now complies with TIA810 and TIA920
- Patched several security issues inherent in Android 4.1.2.
- Improved audio performance when performing other activities (web browsing...), however it is still recommended to avoid CPU intensive activities for best voice quality
- Improved ease of CMS deployment

- Added CMS data Import/Export Functionality
- Added ability to control the Unknown sources setting from CMS
- Added ability to control if user can change the lock screen setting from CMS

Fixed Issues

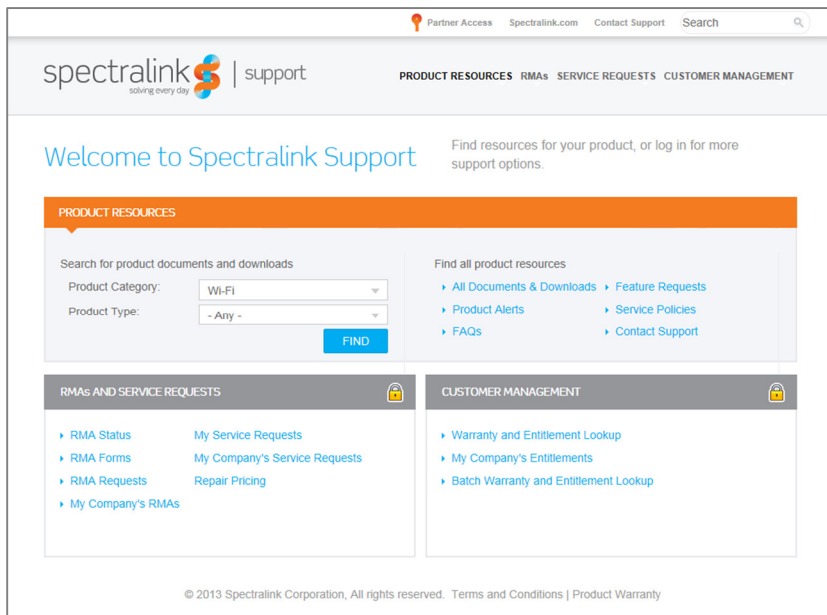
<i>Reference</i>	<i>Description</i>
T-181	If a call is placed to an invalid or unavailable number, the handset no longer freezes
T-700	Handset reboots when you change the SIP enabled setting, as designed
T-0947	SLIC – Release 3.23 supports both 84-Series and 87-Series
T-0920	Avaya Aura – Announced transfer and conference now works as designed
T-0867 T-0973	Avaya CS1K – Resuming a held conference call now works as designed
T-1033	AudioCodes – Blind transfer now works as designed
T-0925	AudioCodes – Announced transfer now works as designed
T-0983	AudioCodes – Call on hold over PRI now works as designed

Chapter 12: Reference Documents

Please consult your support representative for all questions and issues about this product.

Spectralink References

All Spectralink documents are available at <http://support.spectralink.com>.



To go to a specific product page:

Select the Product Category and Product Type from the dropdown lists and then select the product from the next page. All resources for that particular product are displayed by default under the All tab. Documents, downloads and other resources are sorted by the date they were created so the most recently created resource is at the top of the list. You can further sort the list by the tabs across the top of the list to find exactly what you are looking for. Click the title to open the link. PIVOT documents are available at <http://support.spectralink.com/pivot>.

Specific documents

AP Configuration Guides show you how to correctly configure access points and WLAN controllers (if applicable) and identify the optimal settings that support Spectralink 87-Series handsets. The guides can be found at the View Certified page.

Quick Network Connect Administration Guide QNC provides step-by-step instructions for configuring wireless settings required for the handsets to associate with the wireless LAN.

Spectralink 87-Series Smartphone Deployment Guide The Deployment Guide provides sequential information for provisioning and deploying the handsets. It covers deployment using QNC and CMS as well as manual deployment.

PIVOT by Spectralink Configuration Guide The PIVOT Configuration Guide provides detailed information about PIVOT menu items that have been developed specifically for the PIVOT handset.

Spectralink 87-Series Smartphone CMS Administration Guide The CMS Admin Guide provides information about every setting and option available to the administrator on CMS. Time-saving shortcuts, troubleshooting tips and other important maintenance instructions are also found in this document.

Spectralink 87-Series Wi-Fi Security Implementation Guide Wi-Fi security prevents unauthorized over-the-air access to network components and the sensitive data that resides there. This Guide discusses the various method and explains how to implement each of them.

Spectralink 87-Series Smartphone Application Installation Guide The Applications Installation Guide provides detailed information about deploying any type of application, using an app store or MDM and manual processes for loading applications on the Spectralink 87-Series handset.

Spectralink 87-Series Smartphone User Guide The User Guide provides detailed information about using the features of the 87-Series handsets.

Spectralink 87 Series Wireless Telephones Web Developer's Guide The Web Developer's Guide provides Web application creators with information for developing and deploying Web applications that interface with Spectralink handsets.

For information on IP PBX and softswitch vendors, see *PIVOT by Spectralink Call Server Interoperability Guide*.

****END OF DOCUMENT****