

Technical Bulletin CS-20-15

Versity 95/96-Series Android 10 Q&A

This technical bulletin lists Question and Answers a customer may have migrating their 95/96-series deployment from Android 8.1 to Android 10.

System Affected

Spectralink Versity 9540/9553/9640/9653 products

Description

This document considers potential questions regarding migration of 95/96-series deployments to the upcoming Android 10 release. Topics include:

- Android 10 Features and Benefits
- Software release availability
- Migration Strategy
- SAM Dependency
- Mixed fleet deployments

Notes:

- The 10th major Android Operating System release is called "[Android 10](#)". This term is used throughout the document. Versity 95/96 devices were launched on an earlier Android operating system version, Android 8.1.
- For clarity and simplicity, the document refers to 95-series, however it applies to all 95 and 96 series devices, i.e. 9540, 9553, 9640, & 9653. The Versity 92 series devices, i.e. 9240, & 9253 are referred to as V92 or 92-series.

GENERAL ANDROID 10 QUESTIONS

Why upgrade to Android 10?

Google continues to enhance and improve the Android operating system with each release. These include app functionality, user interface, and security enhancements. It is beneficial for Versity users to adopt the latest software to take advantage of these new capabilities.

What are some of the Android 10 differences my users may notice?

The following list is not exhaustive. More detailed information regarding Android 10 features is widely available on the Internet. For example [here](#).

Cosmetic changes:

- Notification bar icons have a slightly different shape.
- Default Text font is more rounded.
- Clock has moved from right to left hand side.
- Volume controls have changed from a slider at the top of the screen to a vertical slider at the right of the screen.

Notifications:

- If enabled, users can use gestures instead of the three buttons at the base of the screen.

Non-visual changes:

- Battery life may differ than OS8.1 due to platform changes to optimize battery life.
- Audio behavior may differ due to changed audio “plumbing” within the OS.
- Background app ability to perform Wi-Fi scans and access to device location may be restricted
- Removal of Android Beam functionality
- Greater restrictions on app’s access to user data, that may result in more pop-ups asking for permissions.

For more technical readers, the following links provide more detailed technical information on the Android 10 changes. [Here](#), [here](#), and [here](#).

How do Spectralink apps look and behave on Android 10?

Aside from new features or enhancements, Spectralink has attempted to minimize unnecessary UI/UX changes of Spectralink developed apps to reduce user disruption and requirement to re-train users. So wherever possible the Spectralink apps UI/UX is close to the prior OS 8.1 look and feel. However, where Android 10 has changed the underlying UX operation the UX may differ.

It is suggested to test all apps users may utilize (Spectralink, Google, or third-party) to ensure unexpected UI/UX changes do not disrupt workflows.

Spectralink has introduced new features and enhancements into some of its apps, for example the Device app, to allow admins the ability to remotely reboot the device. These are more fully described in the Release Notes, and Admin or User documents. Additionally Android 10 has made some UI/UX changes, for example Dark Mode. Spectralink apps now support dark mode, but by default this is disabled.

Android 10 has several new personal digital wellbeing features. Can users access these or other new capabilities?

Yes, Android is not designed exclusively for Enterprise use, and some features are added that cater to personal use. Your best recourse is to use your EMM to disable these application or remove from the secure launcher/kiosk mode.

Do your Spectralink apps support Android 8.1 and Android 10? Are they on the Google Play Store?

The short answer is yes. Spectralink maintains two versions of each published Spectralink app on the Google Play Store. One version supports Android 8.1, and the other version for Android 10. The Versity device will* download the latest version posted on the Play Store appropriate for the operation system version running on the device. All future Spectralink app enhancements shall be developed on Android 10.

* Note: Apps need to be approved by the EMM administrator using the EMM or work Play Store. to allow an app to download. And EMMs can be configured via policies to prevent or control app updates by devices from the Play Store. Applying a policy to prevent app-updates needs to be carefully considered.

95-SERIES ANDROID 10 SOFTWARE AVAILABILITY

When will Android 10 be available for 95-Series?

The first 95-Series Android 10 software release (version 2.1) was made available in March 2021.

New production 95-series devices and refurbished (RMA) devices shall continue to be manufactured/supplied on Android 8.1 software (version 1.4) until a to-be-determined (TBD) date. At which time these devices will ship on an Android 10 software release.

Can I expect any more Android 8.1 95-series software releases?

No. Spectralink has finished development on Android 8.1 and moved all development to Android 10. All future bug-fixes, and enhancements shall be released on top of Android 10.

This is in accordance with Google's intention to have device manufacturers stay up-to-date with their newer OS releases.

How often should I update my 95-Series device software?

Spectralink recommends to update to new software releases in an expedient manner. This allows users to benefit from enhancements and bugfixes. Spectralink advises customers update devices to run the latest release ("n") or prior-to-latest ("n-1") release.

Like any technology update, when updating software, a progressive rollout across a fleet is sensible, to minimize risk (and exposure) in case of any unexpected issues.

How will the 95-Series Android 10 release be available?

The first Android 10 release (2.1.1.934) was made available on the Spectralink Support website in March 2021. The following Android 10 release (2.2.x.yyyy) was made available in May 2021. Spectralink recommends installing the latest software version available.

The 2.1.1.934 release is only provided as a "Full" (1.3GB) release, and is not provided as incremental. Subsequent Android 10 releases are available as Full and Incrementals.

Where are the 95-series Android 10 software and documents?

The Android 10 software release and documentation are posted on the Support website.

What is the 95-Series SW release number with Android 10?

The initial 95-series Android 10 release shall be **2.1.0.zzzzz**, and subsequent releases shall be **2.2.0.zzzzz**, **2.3.0.zzzzz** etc. In contrast to 95-series Android 8.1 releases that used **1.x.y.zzzzz**.

Do V92 devices use the same software release file?

No. The V92 uses a different software release. A 95-series software release shall not work on a V92 device, and vice-versa. Also note that V92 releases (which are Android 10), are numbered **1.x.y.zzzzz**.

How can I tell the difference between a 95-series release file and V92 release file?

The start of the filenames differ. 95-series start with “apollo”, and V92-series are “orion”. For example:

95-Series 2.1 release: apollo-ota_update-signed-2.1.1.934.zip

V92 Series 1.1 release: orion-ota_update-signed-1.1.0.247.zip

Note: During deployment it is possible to rename the files on the web-server hosting the files, however this will affect the ability of a device to automatically detect the latest software release in a directory with multiple release files.

Why should I update (now)? I’m busy.

Unlike software releases within the same Android OS version moving to a new major Android release creates some technical risk. Apps may behave slightly differently, look slightly different, and so forth, so it’s worth planning early to validate this. Spectralink will start shipping new devices with Android 10 sometime in calendar third quarter of 2021 (see question below). Therefore it is important to be ready for this change.

When will you ship OS10 from Manufacturing and RMA?

Spectralink will migrate new manufacturing and RMA devices to ship with Android 10 in calendar third quarter of 2021. Exact date is TBD but no earlier than July 1st 2021. Any new or replacement devices you receive after that time may arrive with Android 10.

Can I order devices with a particular OS version either via RMA or new product?

No. Distributors and resellers may have existing new device inventory produced with Android 8.1. Spectralink cannot assure customers whether they ultimately receive Android 8.1 or Android 10. However, Spectralink shall migrate based on the above date.

Can I downgrade a device I upgraded from Android 10 to Android 8.1?

Short answer is No. This constraint makes it important to both:

1. Rollout Android 10 in an incremental and systematic way. This way if you do run into an app compatibility issue, or some other Android 10 issue, you haven't, hopefully, impacted a large number of devices.
2. Identify any Android 10 compatibility issues early, giving you maximum runway to address issues, prior to devices being manufactured or RMA'ed with Android 10. Therefore customer should start to test the Android 10 releases as soon as possible.

Google [strives](#) to have devices and users on the latest releases. This is in part due to improved security and features with the later releases. Therefore downgrading software versions, is not typically supported.

If you do run into Android 10 compatibility issues, contact Spectralink Support for guidance.

Can I downgrade the OS on a new/RMA device I received on Android 10 back to Android 8.1?

No. This will not be possible.

During Q3 2021, devices will be manufactured (and remanufactured, i.e. "RMA") using Android 10 software releases.

Can I downgrade an app (and not the platform)?

Generally yes. If you update to a newer version of an app, but run into issues, you can typically delete the app and reinstall an older version. This is allowed in Android. There are a few considerations however. If the app is a Spectralink pre-installed app, you cannot install a version older than the version that came pre-installed on the current platform software release. Secondly, if the app is on the Google Play Store, the Play Store services may attempt to push a newer version than you installed on to the device, thus overwriting the older version you wanted on the device. These are "standard Android behaviors", not limited to Spectralink apps or Spectralink devices, and more information about this is available on the Internet.

SUCCESSFUL ANDROID 10 MIGRATION

IMPORTANT NOTE: DO NOT UPDATE YOUR ENTIRE FLEET AT ONCE. Deploy the release on a small test set of devices to ensure the system operates as expected, and incrementally expand the Android 10 deployment as operational confidence is established.

What are the general steps to migrate to your Android 10 release?

The process is pretty straightforward, here are the fundamental steps:

1. Verify your 3rd-party apps are compatible with Android 10.
 - This may be as simple as checking on the Play Store that Android 10 is supported, or consulting with the app developer. If a critical app is not compatible, you may not want to migrate until it is ready, or at least adjust migration plan. This also includes verifying the EMM supports Android 10.
2. If using SAM: update SAM server to the 1.5 (or later) release.
 - For existing 95-series customers using SAM, this is a patch type update, i.e. “update-in-place” from 1.2. For new deployments, this would be a clean 1.5 install. When doing an update, always take backups and/or snapshots prior to commencement.
3. Host the Verity 2.x release file on your web-server.
 - Install the Full or Incremental release on the web-server used for software updates
4. Update SysUpdater App to point to the hosted 2.x software.
 - This can be done via SAM or EMM. Make sure you only apply the update to those devices you want to upgrade.
5. Reboot devices once 2.x software download is complete
 - Devices shall download the software based on the SysUpdater settings. Once downloaded, users will be prompted to reboot the device. Once rebooted the phone will start running the 2.x software. The UI/UX will reflect the OS10 behaviors.
6. Verify apps/device behaves as as expected.
 - Things to consider:
General App Behaviors: Any app user-interface changes, app notification presentation differences, notifications when device is “asleep”

Communication App: Audio quality is expected, audio comes out correct speakers,
Video calls use correct front/back camera, Audio quality is as expected when roaming

General Device Behavior: Battery Life, Wi-Fi Roaming, Wake behavior.

7. If behavior is satisfactory, expand deployment to more devices. Repeat steps 4-7.

I've found a problem, what should I do?

If the problem appears to be within a third-party app, contact the app-developer. If the issue appears to be device related, or Spectralink app, contact Spectralink Support for troubleshooting guidance.

I'm currently running Versity software 1.x on my devices. Do I need to update to Versity software 1.8 before updating to Android 10 (2.x)?

No. If you use the "Full" 2.x software release you can update directly from ANY 1.x release to 2.x.

To save network bandwidth, you may elect to use an "Incremental" release to update from 2.x to 2.y. These Incrementals are smaller, approximately half the file size. You need to use the Incremental version for your current software release. If an appropriate Incremental is not available use the Full release.

You need to update your AMIE/SAM server to 1.5 (or later) prior to migration however.

Does Spectralink assure interoperability?

No. Spectralink performs extensive testing of Spectralink's own software and apps, however there is always a possibility of an integration issue with third-party apps, or perhaps some network anomaly due to configuration variances. Hence Spectralink suggests customers verify compatibility with the app developer, and perform incremental real-world testing before deploying to an entire fleet.

SAM SERVER DEPENDENCY

I'm currently running SAM server software 1.x. Do I need to update? And when should I update?

Yes, SAM server 1.0, 1.1, 1.2 and 1.3, do not properly support the 95-series Android 10 release.

Therefore you **MUST** update your SAM server to SAM 1.4 release (or later). You should update the SAM server software prior to updating the Verity software.

The following table matches the appropriate SAM server version to device software version: .

SAM Server Version	Target 95/96 Software Version	Target 92-Series SW Version
1.2	1.8	-
1.3	-	1.1
1.4	2.1	1.2
1.5	2.2	1.3

The SAM server will allow configuration of those capabilities present in the target software version, but also supports managing devices running earlier software. Devices running earlier software than the target software will ignore settings that are not supported.

I use an EMM for Spectralink application configuration instead of SAM. Is SAM required for Android 10.

No. You can continue to use an EMM to configure Spectralink applications. However Spectralink believes the SAM server solution offers a more streamlined management experience for configuring Spectralink applications on 92/95/96 series Verity devices.

What is the SAM update process for an existing deployed SAM?

The SAM software is available in two forms, (1) a Full release, typically used at a new (greenfield) deployment and thus installing a new SAM server from scratch. And (2) a Patch update, that allows you to update “in-place” from the prior SAM release.

Existing Deployment

If you are an existing deployment with a sizeable number of devices deployed via SAM (where “sizeable” means more devices than you want to reconfigured from scratch), you will want to perform a patch update. You need to patch upgrade to each SAM release to get to the current (as of writing) 1.5 version.

So worse-case scenario for SAM 1.5, if you’re still running SAM release 1.0:

1.0 -> 1.1 -> 1.2 -> 1.4

Before each patch update, adopt the practice of taking a VM snapshot, and SAM DB backup. On the unlikely chance of an issue, you can rollback to the VM snapshot etc. Once the update is successful, the old snapshots can be deleted etc.

If you're an existing site with only a few devices deployed via SAM, you could elect to install a new SAM and migrate directly to 1.5 (or later) rather than perform the patch updates. This would require setting up configurations again in the SAM server.

If when you are reading this, there is a newer SAM release than 1.5 available, please read the appropriate documentation to understand how you update to that.

Greenfield Deployment

A new deployment should use the latest 1.5 (or later) SAM software release.

Mixed Fleet Deployments (92- & 95-Series) or Android 8.1 and Android 10 devices.

Can you have a mixed device fleet of Android 8.1 and Android 10 in a single environment?

Yes. You can have both Android 8.1 and Android 10 devices within a single environment. However, it is important to ensure your applications (3rd party apps, and EMM agents), and SAM server, support both Android 8.1 and Android 10.

Can you have a mixed device fleet of 92-series and 95-series devices in a single environment?

Yes. You can have both 92-series devices and 95-series devices within a single environment. Ensure your applications (3rd party apps, and EMM agents) support both Android 8.1 and Android 10.

What version SAM server do I need?

Assuming you're using a SAM server, you will need SAM server version 1.4 (or later). This version supports the Android 10 releases for V92 and V95-series, as well as being backward compatible for 95-series devices running Android 8.1. See table on prior page for more details.

I can't NFC bump Versity (92/95/96-series) devices running Android 10?

Google removed the Android beam functionality in Android 10. This prevents an admin using another Android device to NFC bump enrollment parameters during initial EMM enrollment. However you can use a NFC card programmed with these parameters to enroll a device into an EMM. This simply requires you pre-program the NFC card using an NFC programming app.

Alternatively you can use a QR code to enroll a device into the EMM. The NFC card approach, once programmed, saves a few seconds over using QR method however, as you don't need to press the touchscreen to get the device into a state to be ready to scan the QR.

This is covered in more detail in the deployment manuals for V92/95-series.

Does 92-series share the same Wi-Fi interoperability as 95-series?

No. The 92-series uses a different chipset, and the required Wi-Fi infrastructure configuration requirements differ from the 95-series. For example, the 92-series requires WMM PowerSave (WMM-PS) to be enabled, whereas 95-series does not. Please refer the [VIEW configuration documents](#), and your Spectralink representative for further guidance. Therefore prior to a mixed device fleet deployment please consult with Spectralink to ensure facility and wireless infrastructure readiness.

Android 10 Spectralink Apps & Google Play Store Availability

Are your all Spectralink apps included in your software release ZIP file? Or must push the Spectralink apps from the Google Play Store too?

Our software releases include the underlying operating system and all Spectralink apps that were tested and available at the time the release was published.

Spectralink also publishes Spectralink apps to the Google Play Store. This serves two purposes:

1. This allows Spectralink to post newer or updated app releases to the Play Store after the software release ZIP file was made available. Depending on your EMM configuration, these subsequent app updates can be automatically downloaded from the Play Store.
2. Having the apps published on the Play Store helps customers using an EMM (without SAM) to configure application configuration parameters in a user-friendly way. EMMs typically use Google Play Store APIs to derive the application's configuration parameters and present the parameters using simple dropdown fields. Without this, EMMs will typically require administrators to manually enter "key-value" pairs for configuration parameters, which is highly error prone.

Are all Spectralink apps published to the Google Play Store?

Typically yes. All released apps are published to the Google Play Store. The exceptions are early-availability apps that Spectralink may not want automatically installed by all customers.

Will the Spectralink apps in the Google Play Store support 92-series and 95/96-series?

Simply put, Yes. The Spectralink apps are designed to run on both 92-series and 95-series devices.

For the more technically minded, a more detailed answer:

- Spectralink will configure the Google Play Store to retain both the latest Android 8.1 Spectralink apps on the Play Store, as well as publish new versions of the Spectralink apps that support Android 10 (API level 29+) onwards.
- In effect there will be two versions of each app, one for Android 8.1, and one for Android 10. Both versions use the same package name. The Android 10 apps being newer, incorporate additional features and bugfixes.
- The device shall “automatically” determine which app version to download based on the OS version on the device. This means a 95-series device running Android 8.1 will download the Android 8.1 app variant, and Spectralink devices running Android 10 will download the Android 10 app.
- So in practical terms:
 - o 95-series devices on SW 1.x (Android 8.1) will download the retained Android 8.1 app from the Play Store. A device on 1.x SW will not download run the Android 10 version of the app.
 - o 92-series devices (launched using Android 10) will download the Android 10 app version from the Play Store. It will not download the 8.1 app version.
 - o A 95-series device updated to the Android 10 release will download the Android 10 app.
- Both 92-series and 95-series devices running Android 10 can download, install, and run the same Android 10 Spectralink app APK file from the Google Play Store.
- No additional updates to the Android 8.1 apps are planned. The Android 8.1 app versions shall not be updated on the Play Store.

Can an Administrator control whether apps get downloaded from the Google Play Store or not?

Yes. Most EMMs provide administrators with a policy to control if and when apps automatically download. This does allow an admin to control when apps get updated. However, many EMM policies are not at per-app granularity, instead it is an all-apps-or-nothing, which may not be ideal. By default, most of these policies enable automatic updates.

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