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ZEBRA HEL-04 Android 13 Software System User Guide

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SEARCH FEATURE IMAGE

Highlights

This Android 13 GMS release covers PS20 family of products.

Starting at Android 11, Delta Updates must be installed in sequential order (ascending oldest to newest); Update Package List (UPL) is no longer a supported method. In place of installing multiple sequential Deltas, a Full Update can be used to jump to any available LifeGuard Update.

LifeGuard patches are sequential and include all previous fixes that are part of earlier patch releases.

Please see, device compatibility under Addendum Section for more details.

AVOID DATA LOSS WHEN UPDATING TO ANDROID 13

Read Migrating to Android 13 on TechDocs

Software Packages

Package Name	Description
HE_FULL_UPDATE_13-22-18.01-TG-U01-STD-HEL-04.zip	Full package update
HE_DELTA_UPDATE_13-22-18.01-TG-U00-STD_TO_13-22-18.01-TG- U01-STD.zip	Delta package from previous release 13-22-18.01-TG-U00- STD
Releasekey_Android13_EnterpriseReset_V2.zip	Reset Package to Erase User Data Partition Only
Releasekey_Android13_FactoryReset_V2.zip	Reset Package to Erase User Data and Enterprise Partitions

Zebra Conversion Package for migrating to Android 13 without data loss.

Current Source OS Versions present on device			Zebra Conversion Package to be used	Notes
OS Dessert	Release Date	Build Version		
Oreo	Any Oreo release	Any Oreo release	11-99-99.00-RG-U510- STD-HEL-04	Android Oreo – For devices with LG version earlier than 01-23-18.00-OG - U15-STD, the device must be upgraded to this version or newer prior to beginning the migration process.

Pie	Any Pie release	Any Pie release	11-99-99.00-RG-U510- STD-HEL-04	For Android Pie, the device must be upgraded to Android 10 or 11 to begin the migration process.
A10	Any A10 release	Any A10 release	11-99-99.00-RG-U510- STD-HEL-04	
A11	Till Dec 2023 release	From LIFEGUARD UPDATE 11-39-27.00-RG-U00 till Dec 2023	11-99-99.00-RG-U510- STD-HEL-04	1. SD660 upgrades to A13 from lower OS dessert because data reset due to encryption mismatch, hence ZCP is released to do selective data persistence in such OS upgrade cases, which is explained in the techdocs. **https://techdocs.zebra.com/lifeguard/a13/** 2. ZCP will be released in cadence of A11 LG MR release to make sure it is based upon the latest Security patches as per security team guidelines. 3. Customers need to choose the right ZCP based on their source and target OS as mentioned in the tabular section of ZCP release notes.

Security Updates

This build is Compliant up to **Android Security Bulletin** of December 01, 2023.

LifeGuard Update 13-22-18.01-TG-U01

LifeGuard Update 13-22-18.01-TG-U01 contains security updates.
This LG Delta Update package is applicable for 13-22-18.01-TG-U00-STD-HEL 04 BSP version.

- **New Features**
  - None
- **Resolved Issues**
  - None
- **Usage Notes**
  - None

LifeGuard Update 13-22-18.01-TG-U00

LifeGuard Update 13-22-18.01-TG-U00 contains security updates, bug fixes and SPRs.

This LG Delta Update package is applicable for 13-20-02.01-TG-U05-STD-HEL 04 BSP version.

- **New Features**
  - Scanner Framework:
    - Update Google MLKit Library version to 16.0.0.
- **DataWedge:**
  - New Picklist + OCR feature: allows capture of either a barcode or OCR (single word) by centering the desired target with the aiming crosshair or dot. Supported on both Camera and Integrated Scan Engines.
- **Fusion:**
  - Support for multiple root certificates for Radius server validation.
- **Wireless Analyzer:**
  - Stability fixes in Firmware and Wireless Analyzer stack.
  - Improved analysis reports and error handling for Roaming and Voice Features.
  - UX and other bug fixes.
- **MX 13.1:**
  Note: Not all MX v13.1 features are supported in this release.
  - Access Manager adds the ability to:
    - Pre-grant, pre-deny or defer to the user access to "Dangerous Permissions".
    - Allow the Android system to automatically control permission to seldom-used apps.
  - Power Manager adds the ability to:
    - Turn off the power on a device.
    - Set Recovery Mode Access to features that could compromise a device.
- **Auto PAC Proxy:**
  - Added support for Auto PAC Proxy feature.

Resolved Issues

- SPR50640 – Resolved an issue wherein user was unable to ping the devices that were using modified host name through host manager Communication Service Provider.
- SPR51388 – Resolved an issue, to fix camera app crash when device rebooted multiple times.
- SPR51435 – Resolved an issue where device fails to roam when Wi-Fi lock is obtained in "wifi_mode_full_low_latency" mode.
- SPR51146 – Resolved an issue where in after setting the alarm the text in notification is changed from DISMISS to DISMISS ALARM.
- SPR51099 – Resolved an issue where scanner was not enabled to scan SUW bypass barcode.
- SPR51331 – Resolved an issue where Scanner remained in DISABLED status after suspending and resuming the device.
- SPR51244/51525 – Resolved an issue where ZebraCommonIME/DataWedge getting set as primary Keyboard.

Usage Notes

- None

LifeGuard Update 13-20-02.01-TG-U05

LifeGuard Update 13-20-02.01-TG-U05 contains security updates.
This LG Delta Update package is applicable for 13-20-02.01-TG-U01-STD-HEL-04 BSP version.

- **New Features**
  - None
- **Resolved Issues**
  - None
- **Usage Notes**
  - None

LifeGuard Update 13-20-02.01-TG-U01

LifeGuard Update 13-20-02.01-TG-U01 contains security updates.
This LG Delta Update package is applicable for 13-20-02.01-TG-U00-STD HEL-04 BSP version.

- **New Features**
  - None
- **Resolved Issues**
  - None
- **Usage Notes**
  - None

LifeGuard Update 13-20-02.01-TG-U00

LifeGuard Update 13-20-02.01-TG-U00 contains security updates, bug fixes and SPRs.
This LG Delta Update package is applicable for 13-18-19.01-TG-U00-STD-HEL 04 BSP version.

- **New Features**
  - Added support for Admin to control BT scanner parameters Reconnect Timeout, Wi-Fi-friendly channel exclusion, and Radio Output Power for remote Scanners RS5100 and Zebra Generic BT scanners.
- **Resolved Issues**
  - SPR50649 – Resolved an issue wherein decoded data was not received by the app via intent.
  - SPR50931 – Resolved an issue wherein OCR data was not formatted when keystroke output was selected.
  - SPR50645 – Resolved an issue wherein device would report charging slowly.
- **Usage Notes**
  - None

Update 13-18-19.01-TG-U00

New Features

- In A13, data encryption method is changed from full disk (FDE) to file based (FBE).
- Zebra Charging Manager new feature is added in Battery Manger App to improve battery Life.
- RxLogger new features includes – Additional WWAN dumpsys commands and Configurable logcat buffer size

through RxLogger settings.

- Worry-free Wi-Fi is now renamed as Wireless Analyzer.
- Wireless Analyzer supports 11ax scan list feature, FT_Over_DS feature , 6E Support to add (RNR, MultiBSSID) in Scan list and FTM API integration with Wireless Insight .
- In A13 Stagenow JS Barcode support is added .XML Barcode will not be Supported by Stagenow in A13.
- DDT New release will have new package name. Old package name support will be discontinued after some time. Older version of DDT must be uninstalled, and newer version should be installed.
- In A13 Quick setting UI has changed.
- In A13 Quick setting UI QR scanner code option is available.
- In A13 Files app is replaced by Google Files App.
- Initial Beta Release of Zebra Showcase App (Self Updatable) explores the latest features and solutions, a platform for new demos built on Zebra Enterprise Browser.
- DWDemo has moved to the ZConfigure folder.
- Zebra is using Play Auto Installs (PAI) to support server-side configurations for installation of few GMS applications on PS20 device.

Following GMS applications are installed as part of the end-user out-of-box experience.
Google TV, Google meet, Photos, YT music, Drive The above-mentioned applications are also installed as part of OS Upgrade from any of the previous OS desserts to Android 13. Enterprise use-cases like DO enrollment, Skip setup wizard will also have the abovementioned GMS applications installed as part of the end user experience. The above-mentioned GMS applications will be installed on PS20 device after internet connection is enabled on the device. After PAI has installed the above-mentioned GMS applications and if the user uninstalls any of them, such uninstalled applications will be re-installed back on next device reboot.

Resolved Issues

- SPR48592 Resolved an issue with EHS crashing.
- SPR47645 Resolved an issue with EHS suddenly disappears, and Quickstep shows up.
- SPR47643 Resolved an issue with Rescue Party screen during Wi-Fi ping test.
- SPR48005 Resolved an issue with StageNow – the string length of Passphrase WPAClear is too long when using \\ for \ in passphrase.
- SPR48045 Resolved an issue with MX not able to use HostMgr Hostname.
- SPR47573 Resolved an issue with Short Press should not open Power Menu
- SPR46586 Resolved an issue with EHS Unable to set EHS as default Launcher with StageNow
- SPR46516 Resolved an issue with Audio Settings Do Not Persist upon Enterprise Reset
- SPR45794 Resolved an issue with Selecting\changing Audio Profiles does not set volume to preset levels.
- SPR48519 Resolved an issue with Clear Recent Apps MX Failing.
- SPR48051 Resolved an issue with StageNow where FileMgr CSP not working.
- SPR47994 Resolved an issue with Slower to update the tile name at every reboot.
- SPR46408 Resolved an issue with Stagenow Not showing downloading pop up when downloading os update file from custom ftp server.
- SPR47949 Resolved an issue with Clearing recent apps is opening Quickstep launcher instead in EHS.
- SPR46971 Resolved an issue with EHS Auto launch app list is not preserved when EHS configuration is saved from EHS GUI
- SPR47751 Resolved an issue with Default Launcher Problem setting when device has blacklisted com.android.settings applied

- SPR48241 Resolved an issue with System UI crash with MobileIron's DPC launcher.
- SPR47916 Resolved an issue with OTA Download through Mobile Iron (using Android Download Manager) Fails in 1Mbps network speed.
- SPR48007 Resolved an issue with Diag daemon at RxLogger increases its consumption memory.
- SPR46220 Resolved an issue with BTSnoop log module inconsistency in generating CFA logs .
- SPR48371 Resolved an issue with SWAP battery – the device doesn't restart – Power on doesn't run after swapping.
- SPR47081 Resolved an issue with Fixing a timing issue with USB during suspend/resume.
- SPR50016 Resolved an issue with gnss engine stays in locked state.
- SPR48481 Resolved an issue with Wi-Fi beacon miss issue between Device and WAP.
- SPR50133/50344 Resolved an issue with Device entering Rescue Party mode randomly.
- SPR50256 Resolved an issue with Mexico Daylight Savings Changes
- SPR48526 Resolved an issue with Device Freezing randomly.
- SPR48817 Resolved an issue with Auto shutdown disabled in TestDPC Kiosk.
- Integrated Mandatory Functional Patch from Google Description: A 274147456 Revert intent filter matching enforcement.

Usage Notes

Existing customers can upgrade to A13 with data persistence using one of the following methods.

a) Using FDE-FBE conversion package (FDE-FBE conversion package)
b) Using EMM enterprise persistence (AirWatch, SOTI)

Version Information

Below Table contains important information on versions

Description	Version
Product Build Number	13-22-18.01-TG-U01-STD-HEL-04
Android Version	13
Security Patch level	December 01, 2023
Component Versions	Please see Component Versions under Addendum section

Device Support

Please see device compatibility details under Addendum Section.

Known Constraints

- Dessert Upgrade to A13 will have Enterprise reset because of Encryption change from FDE to FBE.
- Customers who upgrade from A10/A11 to A13 without FDE-FBE conversion package or EMM persistence will result in data wipe.
- Dessert upgrade from A10, A11 to A13 can be done with UPL with reset command. Oreo reset command is not

supported.

- DHCP Option 119 feature is currently not supported in this release. Zebra is working on enabling this feature in future Android 13 releases.
- SPR47380 OS level exception caused by the initialization of an NFC internal component, resulting in the crash log present upon reboot. After the OS exception, the NFC chip retries the initialization, and it is successful. There is no functionality loss.
- SPR48869 MX – CurrentProfileAction set to 3 and Turning off DND. This will be fixed in upcoming A13 releases.
- Scanner and keypad volume restrictions are not persisted after A13 upgrade. This is restriction is only for May A11 LG. Fix for this issue will be available in upcoming conversion package.
- Staging via NFC is not supported.
- EMM supporting persistence feature (primarily Airwatch/SOTI) will only work while migrating from A11 to A13.
- MX 13.1 feature, Wifi and UI Manager are not included on this OS Build. This will be taken in upcoming A13 releases.

Important Links

- **SDM660 A13 OS Update instructions**
- **FDE-FBE conversion package**
- **Zebra Techdocs**
- **Developer Portal**

Addendum

Device Compatibility

This software release has been approved for use on the following devices.

Device Family	Part Number		Device Specific Manuals and Guides
PS20	PS20J-P4G1A600 PS20J- P4G1A600-10 PS20J-B2G1A600 PS20J- B2G1A600-10 PS20J- P4H1A600 PS20J-P4H1A600-10 PS20J- B2G2CN00 PS20J- P4H2CN00	PS20J-P4G2CN00 PS20J- P4G1NA00 PS20J- P4G1NA00-10 PS20J- B2G1NA00 PS20J-B2G1NA00-10 PS20J- P4H1NA00 PS20J-	**PS20 Home Page**

Component Versions

Component / Description	Version
Linux Kernel	4.19.157-perf
GMS	13_202304
AnalyticsMgr	10.0.0.1006
Android SDK Level	33
Audio (Microphone and Speaker)	0.9.0.0
Battery Manager	1.4.3
Bluetooth Pairing Utility	5.3
Camera	2.0.002
DataWedge	13.0.121
EMDK	13.0.7.4307
ZSL	6.0.29
Files	version 14-10572802
MXMF	13.1.0.65
OEM info	9.0.0.935
OSX	SDM660.130.13.8.18
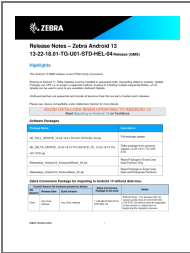
RXlogger	13.0.12.40
Scanning Framework	39.67.2.0
StageNow	13.0.0.0
Zebra device manager	13.1.0.65
Zebra Bluetooth	13.4.7
Zebra Volume Control	3.0.0.93
Zebra Data Service	10.0.7.1001
WLAN	FUSION_QA_2_1.2.0.004_T
Wireless Analyzer	WA_A_3_1.2.0.004_T
Showcase App	1.0.32
Android System WebView and Chrome	115.0.5790.166

Revision History

Rev	Description	Date
1.0	Initial release	November 07, 2023

Documents / Resources

ZEBRA HEL-04 Android 13 Software System [pdf] User Guide
HEL-04 Android 13 Software System, HEL-04, Android 13 Software System, Software System

References

- *ZEBRA* **Welcome | Zebra Developer Portal**
- *ZEBRA* **Zebra | TechDocs**

- 🤖 **Android Security and Update Bulletins | Android Open Source Project**
- 🦓 **Migrating to Android 13 - TechDocs**
- 🦓 **Migrating to Android 13 - TechDocs**
- 🦓 **PS20 Mobile Computer Support & Downloads | Zebra**
- **User Manual**