# Release Notes – Zebra TC20 and TC25 Android N LifeGuard Update 08 for BSP 04-14-30-0-NG-00-M1 (GMS)

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# Description

This release contains the following software package which is compatible with the TC20 and TC25 GMS products.

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

# Component Contents/Updates

| Component / Description      | Version                       |
|------------------------------|-------------------------------|
| Build_version                | 04-14-30.00-NG-U08-STD        |
| Android_version              | 7.1.2                         |
| Android_SDK_Level            | 25                            |
| Android Security Patch Level | December 1, 2018              |
| Linux_kernel                 | 3.18.31                       |
| Wifi                         | FUSIONLITE_QA_1_0.0.0.018_N   |
|                              | Application QA_1_00.0.0.007_N |
|                              | Middleware QA_1_00.0.0.009_N  |

|                    | Radio QA_1_00.0.0.017_N   |
|--------------------|---|
| Platform           | Qualcomm MSM8937  |
| Scanning_Framework | 19.7.29.0   |
| DWDemo             | 2.0.13  |
| OSX                | QCT.71.7.8.UL   |
| MXMF               | 8.2.2.0   |
| Touch              | Focaltech V1.1 20161103 (fw:0x24)   |
| Bluetooth_Stack    | CNSS.PR.4.0-00388/01050102  |
| Flash_Size         | 16G /32G  |
| RAM_Size           | 2G  |
| GPS                | MPSS.JO.3.0-00295-8937_GENNS_PACK-1   |
| MMS                | 7.1.2   |
| RIL_Version        | 1.0   |
| BT_Pairing_Utility | 3.8   |
| Datawedge          | 7.0.4   |
| Camera             | LA.UM.5.6.r1-04600-89xx.0-1   |
| PTT                | 3.1.35  |
| RxLogger           | 5.4.10.0  |
| StageNow           | 3.1.1.1019  |
| Data_Analytics     | 3.3.0.1113  |
| EMDK               | 7.0.0.2000  |
| IMEI SV Number     | 06  |
| OEM Config         | 8.1.0.9   |
| File Browser       | 1.19.1.5  |
| DDT                | V1.16.0.1   |
| Fingerprint        | Zebra/TC25/TC25FM:7.1.2/04-14-30.00-NG-U08-<br>STD/181129:user/release-keys,    |
|                    | Zebra/TC20/ TC20RT:7.1.2/04-14-30.00-NG-U08-<br>STD /181129:user/release-keys,  |
|                    | Zebra/ TC20/ TC20RD:7.1.2/04-14-30.00-NG-<br>U08-STD /181129:user/release-keys, |
|                    | Zebra/ TC20/ TC20KB:7.1.2/04-14-30.00-NG-<br>U08-STD /181129:user/release-keys  |

## 1. CFE v8 Updates:

- CFE-TC2X-N-XX-041430-G-00-08.zip (GMS)
  - 1. Android Security Patch Level: December 01, 2018

Use the below link to see the Android Security bulletin for more information: https://source.android.com/security/bulletin/

2. SPR34310 – Resolved an issue wherein CANCEL READ API was not working when Continuous Mode was enabled.

## 2. CFE v7 Updates:

- CFE-TC2X-N-XX-041430-G-00-07.zip (GMS)
  - 1. Android Security Patch Level: November 01, 2018

Use the below link to see the Android Security bulletin for more information: https://source.android.com/security/bulletin/

3. MX, StageNow, EMDK, Datawedge component updates:

Note: For detailed release notes, please refer <a href="http://techdocs.zebra.com">http://techdocs.zebra.com</a>

- MX: Version 8.2.2.0
  - a. SPR35665 Resolved an issue wherein google keyboard settings are not persisting through a reboot when configured directly after factory reset.
  - b. SPR34771 Resolved a synchronization issue in Mx.
- o StageNow Client: Version 3.1.1.1019
- EMDK: Version 7.0.0.2000
- Datawedge: Version 7.0.4
- 4. B2M client included in disabled mode.
- 5. SPR35581 Resolved an issue wherein soft Keyboard was not coming up upon explicitly invoking via API on hard keypad devices.

#### 3. CFE v6 Updates:

- CFE-TC2X-N-XX-041430-G-00-06.zip (GMS)
  - 1. Android Security Patch Level: October 01, 2018

Use the below link to see the Android Security bulletin for more information: https://source.android.com/security/bulletin/

2. SPR35440- Resolved an issue where device did not show private APN when it was created using StageNow.

#### 2. CFE v5 Updates:

- CFE-TC2X-N-XX-041430-G-00-05.zip (GMS)
  - 1. Android Security Patch Level: September 01, 2018

Use the below link to see the Android Security bulletin for more information: https://source.android.com/security/bulletin/

- 2. Updated below mentioned components:
  - 4. File Browser: Version 1.19.1.5

- 5. Diagnostic Tool: Version 1.16.0.1
- 6. OEMConfig: Version 8.1.0.9
- 7. WiFi FUSIONLITE\_QA\_1\_0.0.0.018\_N
- **8.** DataAnalytics Version 3.3.0.1113
- 9. MX, StageNow, EMDK, Datawedge component updates:

Note: For detailed release notes, please refer http://techdocs.zebra.com

- 10. MX: Version 8.1.0.10
  - a. SPR34716 Resolved an issue wherein the MX was getting killed by Backup manager and didn't restart properly.
  - b. SPR33323 Added new feature to enable/disable physical keyboard via StageNow.
- 11. StageNow Client: Version 3.1.1.1018
- 12. EMDK: Version 6.10.12.1312
- 13. Datawedge: Version 6.9.49
  - a. SPR34429 Resolved an issue wherein DataWedge failed to load "default Profile0".
  - b. SPR34614 Resolved an issue in DataWedge wherein scanner could not be enabled due to quick enabling and disabling of scanner through Intents.
  - c. SPR34972 Implemented new parameters in scanner\_input\_plugin API so that the API takes considerable less time to suspend/reenable of the scanner.
- 14. Included Zebra Software License Manager v3.1.1.
- **15.** SPR33207- Resolved an issue wherein the Device Diagnostic tool had an issue with reading the Battery Cycles in the application for PP+ batteries.
- **16.** SPR35252- Resolved an issue wherein the device reboots when DO mode is enabled and user tries to turn data saver on.
- 17. SPR35568 Resolved an issue wherein device does not show preview information in Messaging App when language toggles from right-to-left.
- **18.** Data Analytics changes:
  - DataAnalytics has been renamed to Zebra Data Service.
  - DAInBuiltDCA has been renamed to Zebra Data Service Plugin.
  - o SettingsEULA has been renamed to Zebra Data Services.
  - In this release, the ZDS-EULA pop up during configuring the device, can be automatically skipped if the device is configured for Device Owner mode or when SUWBypass is used.
  - DO mode configuration mechanism includes NFC bump, QR code, AFW# and Zero touch.
  - SUW Setup Wizard Bypass can set with PowerMgr CSP.
  - On Automatic skipping of Zebra EULA, Zebra's default settings and data collection rules will be configured on the device.
- 19. Disabled the Qualcomm Location from GMS build for both TC20 and TC25.

## 3. CFE v4 Updates:

- CFE-TC2X-N-XX-041430-G-00-04.zip (GMS)
  - 1. Android Security Patch Level: August 01, 2018

Use the below link to see the Android Security bulletin for more information: https://source.android.com/security/bulletin/

- 2. Updated below mentioned components:
  - a. MXMF Version 8.0.1.2
  - b. DataWedge Version 6.8.54
  - c. EMDK Version 6.9.16.1216
  - d. StagingClient Version 3.0.1.1038
  - e. File Browser -- Version 1.19.1.5
  - f. DDT -- Version 1.15.0.14
  - g. OEM Config Version 8.0.0.4
  - h. Data Analytics -- Version 3.3.0.1113
  - i. Wifi -- Version FUSIONLITE\_QA\_1\_0.0.0.017\_N
- 3. SPR35005 Resolved an issue wherein the Proximity being Suspended.
- 4. Added cellular WAN changes to support some Latin American (LATAM) carriers certification. TC25 now supports following Latin America Carriers
  - AT&T Mexico
  - Telcel Mexico
  - Telefonica Columbia
- 5. Changes for Telenor Denmark carrier certification:
  - SPR34858 Corrected SIM PIN Retry Count
  - Danish language translations

## 4. CFE v3 Updates:

- CFE-TC2X-N-XX-041430-G-00-03.zip (GMS)
  - 1. Android Security Patch Level: July 01, 2018

Use the below link to see the Android Security bulletin for more information: https://source.android.com/security/bulletin/

- 1. Updated below mentioned components:
  - a. MXMF Version 8.0.1.2
  - b. DataWedge Version 6.8.54
  - c. EMDK Version 6.9.16.1216
  - d. StagingClient Version 3.0.1.1038
  - e. File Browser --1.19.1.5
  - f. DDT -- 1.15.0.14
- SPR34716 Resolved an issue wherein the MX was getting killed by Backup manager and didn't restart properly.
- 3. SPR34145 Resolved an issue wherein indexing of the WEP key was not handled correctly.
- 4. SPR34429 Resolved an issue wherein failed to emit scan beam if the application was launched during device suspend.

## 5. CFE v2 Updates:

CFE-TC2X-N-XX-041430-G-00-02.zip (GMS)

#### 1. Android Security Patch Level: June 01, 2018

Use the below link to see the Android Security bulletin for more information: https://source.android.com/security/bulletin/

- 1. Updated below mentioned components:
  - a. MXMF Version 8.0.0.10
  - b. DataWedge Version 6.8.50
  - c. EMDK Version 6.9.16.1216
  - d. StagingClient Version 3.0.1.1037
  - e. File Browser --1.19.1.5
  - f. DDT -- 1.15.0.14
- 2. SPR33671 Resolved an issue wherein user was unable to create WIFI profile with username as backslash followed by number
- 3. SPR34267 Resolved an issue wherein the device was failed to enable USB debugging when a barcode was scanned.
- 4. SPR33862 Resolved an issue wherein the Screen Time off settings using Display manager CSP was not working.
- 5. SPR34145 Resolved an issue wherein indexing of the WEP key was not handled correctly.
- 6. SPR33973 Resolved an issue wherein erroneously loading default profile by providing feature to ignore disabled profiles in DataWedge
- 7. SPR33848 Added support to included category field in intent profile in StageNow.
- 8. SPR34189 Resolved an issue wherein low ram and oom limit adjustments to provide more free memory.
- 9. SPR33639 Resolved an issue wherein the customer app install and launch during device sleep state and device stop emitting scan beam after awake from suspend.
- 10. SPR33876 Resolved an issue wherein Display Timeout was unable set via StageNow
- 11. SPR33607 Resolved an issue where few fresh devices were unable to stage after unbox the device.
- 12. SPR33538 Resolved an issue wherein the Scanner beam stuck off and No LED beam while pressing scanner button.
- 13. SPR33977 Resolved an issue wherein Time Zone setting through StageNow profile was not working.
- 14. SPR33981 Resolved an issue Czech Republic Regulatory Country could not be set using Wifi config profile.
- SPR33799 Resolved an issue wherein DataWedge was sending char 10 instead of char 13.
- 16. SPR31491- Resolved an issue wherein device not able to stage devices from manufacturing with StageNow.

# **Device Compatibility**

This software release has been approved for Android TC20 Nougat GMS models mentioned below.

| Device          | Operating System  |
|-----------------|---|
| TC200J-10C112A6 | Android N GMS ROW – EMEA, LATAM,<br>APAC & Canada               |
| TC200J-10C112US | Android N GMS US Only   |
| TC200J-10A111US | Android N GMS US Only   |
| TC200J-10A111A6 | Android N GMS ROW – EMEA, LATAM,<br>APAC & Canada               |
| TC200J-10C213A6 | Android N GMS ROW – EMEA, LATAM,<br>APAC & Canada (Premium SKU) |
| TC200J-10C213US | Android N GMS US Only (Premium SKU)                             |
| TC200J-10A111TN | Android N GMS TUNISIA Only                                      |
| TC200J-10C112TN | Android N GMS TUNISIA Only                                      |
| TC200J-10C213IA | Android N GMS INDIA (Premium SKU)                               |
| TC200J-10C112IA | Android N GMS INDIA   |
| TC200J-10A111IA | Android N GMS INDIA   |
| TC200J-1KC111A6 | Android N GMS ROW EMEA, LATAM, APAC & Canada (Keyboard SKU)     |
| TC200J-1KC111IA | Android N GMS INDIA (Keyboard SKU)                              |
| TC200J-1KC111TN | Android N GMS TUNISIA (Keyboard SKU)                            |
| TC200J-1KC111US | Android N GMS US (Keyboard SKU)                                 |

This software is also approved for Android TC25 Nougat GMS models mentioned below

| Device          | Operating System                |
|-----------------|---------------------------------|
| TC25AJ-10C102A6 | Android N GMS ROW – EMEA        |
| TC25AJ-10B101A6 | Android N GMS ROW – EMEA        |
| TC25BJ-10C102A6 | Android N GMS ROW – EMEA & APAC |
| TC25BJ-10B101A6 | Android N GMS ROW – EMEA & APAC |
| TC25BJ-10C102IA | Android N GMS ROW - INDIA       |
| TC25BJ-10B101IA | Android N GMS ROW - INDIA       |
| TC25BJ-10C102BR | Android N GMS ROW - BRAZIL      |
| TC25BJ-10B101BR | Android N GMS ROW - BRAZIL      |
| TC25BJ-10C102TN | Android N GMS ROW - TUNISIA     |
| TC25BJ-10B101TN | Android N GMS ROW - TUNISIA     |

| TC25BJ-10C102JP | Android N GMS ROW - JAPAN        |
|-----------------|----------------------------------|
| TC25BJ-10B101JP | Android N GMS ROW - JAPAN        |
| TC25AJ-10C102US | Android N GMS NORTH AMERICA - US |
| TC25AJ-10B101US | Android N GMS NORTH AMERICA - US |
| TC25BJ-10B101ID | Android N GMS ROW - INDONESIA    |
| TC25BJ-10C102ID | Android N GMS ROW - INDONESIA    |

# Installation Requirements

## **HW Requirements**

- Windows PC running Windows 7/10 32/64 bits
- USB Type C Cable
- Micro SD Card with at least 2GB capacity (optional)

## **SW** Requirements

Please make sure following components are installed on your computer before commencing OS installation.

- Zebra Android USB Driver V2.2 or higher
- Android Debug Bridge version 1.0.39 or higher
- TC20/TC25 GMS Android OS Release Images

# **Image Compatibility**

To use this Update, the terminal must have the BSP 04-14-30-0-NG-00-M1 installed as the baseline OS.

# Installation Instructions

## Using the "adb sideload" method

## **Assumptions**

- 1. ADB installed on PC
- 2. TC20/TC25 has Developer options enabled
- 3. USB debugging ON

#### Procedure

- 1. Plug the TC20/TC25 into the USB & Charging Cable and then the Cable to the PC. If you have a Cradle with USB connectivity, connect it now.
- 2. You may need to pull down notification bar, and tap on the notification which says, "USB charging this device", and change it to "Transfer files".

- 3. Open Command Prompt on PC, run "adb devices" and check to see if you can see the device's serial number... If yes, proceed... if not you will need to get the PC set up with the proper drivers or install an External SD Card.
- 4. You may also get a pop up on your PC (Win 7) that you will be connected as a Portable Media Player... this can be ignored.
- 5. Entering Recovery Mode
  - a. Choice 1: In Command Prompt, type "adb reboot recovery" and click enter.
  - b. Choice 2:
    - i. Reboot and hold PTT key
    - ii. When Zebra Technologies logo appears on the screen Release the PTT Key
- 6. Your TC20/TC25 will reboot and take you to Android Recovery screen.
- 7. To select Sideload Method
  - Use the Volume + and to highlight, "Apply update from ADB" and press the Power Key to select it
- 8. With your Command Prompt, open, type "adb sideload" and add a space and then drag and drop the zip file which you want to apply to the device and press enter.
  - a. When the file download starts, the command window will show progress with a percentage completed.
  - b. Device display will show a series of messages indicating it is downloading, verifying and installing the image on to the device.
- 9. After successful update, the device will auto reboot and you see Zebra on top and POWERED BY android at the bottom and after about 10 second will transition to the TC20/TC25 Touch Computer splash screen with 5 dancing white dots at bottom... it will stay at this screen for up to 4 minutes and then present the "Welcome Screen".
- 10. To make sure the OS Patch Update took place, once the initial setup is complete;
  - a. Go to "Settings" and scroll down to "About phone" and look at the "Build number". It should state "04-14-30.00-NG-U08-STD" and the Patch Version should indicate as "8".
- 11. Now you are all set to use your TC20/TC25.

## Using External SD Card

- 1. Plug the TC20/TC25 into the USB & Charging Cable and then the Cable to the PC. If you have a Cradle with USB connectivity, connect it now.
- 2. You may need to pull down notification bar, and tap on the notification which says, "USB charging this device", and then change it to "Transfer files".
- 3. You may also get a pop up on your PC (Win 7) that you will be connected as a Portable Media Player... this can be ignored.
- 4. Copy the required files to the SD Card. This can be done in two ways
  - a. Copy the files to the Micro SD card with the help of a SD Adapter which gets inserted to the SD slot of your PC/Laptop/SD Writer.
  - b. Directly transfer files to the Micro SD card which is inserted in to the back of the device. Please refer to the user guide on how to open the back door and inserting the SD card to the device.
- 5. Entering Recovery Mode
  - a. Choice 1: In Command Prompt, type "adb reboot recovery" and click enter.
  - b. Choice 2:
    - i. Reboot and hold PTT key
    - ii. When Zebra Technologies logo appears on the screen Release the PTT Key
- 6. Your TC20/TC25 will reboot and take you to Android Recovery screen.

- 7. Applying update via External SD card
  - a. Use the Volume + and to highlight select option to "Apply update from SD card" and press the Power Key to select it
  - b. Use the Volume + and to highlight package to be installed (downloaded Zip file) and press the Power Key to select it.
- 8. After successful update, the device will auto reboot and you see Zebra on top and POWERED BY android at the bottom and after about 10 second will transition to the TC20/TC25 Touch Computer splash screen with 5 dancing white dots at bottom... it will stay at this screen for up to 4 minutes and then present the "Welcome Screen".
- 9. To make sure the OS Update took place, once the initial setup is complete;
  - a. Go to "Settings" and scroll down to "About phone" and look at the "Build number". It should state "04-14-30.00-NG-U08-STD" and the Patch Version should indicate as "8".
- 10. Now you are all set to use your TC20/TC25.

# Downloadable Software Included in this Release

| Filename                         | Description  |
|----------------------------------|--|
| CFE-TC2X-N-XX-041430-G-00-08.zip | OS Update LG patch for BSP 04-14-30-0-NG-<br>00-M1 |

Last Revised: 12-05-2018