Release Notes – *Zebra MC33x Android N LifeGuard Update 07 for GMS*

Introduction

Zebra MC33x is the next generation key-based, rugged mid-range hand-held mobile computing device. MC33x supports multiple form-factors offering a combination of different physical keys, data capture and memory options. Running on a stable Android-N (7.1.2) OS, MC33x offers the Zebra Value Adds software solutions to enhance your Enterprise workflow.

The MC33x is the professional-grade Android device built from the ground up for the Enterprise.

- · Zebra's Mobility Extensions (Mx)
- · Mobility DNA,a suite of mobility enabling applications, development tools and utilities
- · Most advanced scan engine with longer range date capture capability
- · Rugged and ready for every day Enterprise use inside and outside the four walls

Description

This release contains the following software package which is compatible with the MC33 GMS product.

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

1. **CFE v7 Updates:**
   - ❖ CFE_ATLAS_P07_NG_01-01.49.zip (GMS)

   1. **Android Security Patch Level:** May 1, 2018

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

   2. Fix for Zebra setup wizard popup after OS upgrade.
   3. **Updated below components:**
      o MX: 8.0.0.10
      o StageNow client: 3.1.0.1037
      o DataWedge: 6.8.50
      o Enterprise Keyboard: 1.8.0.8
   4. Build ID format has been updated.
   5. Included Zebra Software License Manager v3.0.1.
   6. Added Wi-Fi power table for Japan.
   7. SPR34179 – Resolved an issue wherein device connects slowly to an AP.
   8. SPR34175 – Resolved an issue wherein device does not show preview information in Messaging App when language toggles from right-to-left.
   9. SPR34259 – Added support to use USBMgr CSP to limit the standard 4 options on device to only allow UsbExternalStorageUsage.
   10. SPR34307 – Resolved an issue wherein the device was unable to be staged via StageNow.
   11. SPR34083/34014/32519 – Resolved an issue wherein disabling WWAN radio via Airwatch using StageNow XML fails.
   12. SPR33977 – Resolved an issue wherein set time zone issue observed with StageNow.
   13. SPR34213/31491 – Resolved an issue wherein the device was unable to stage via StageNow.
   14. SPR34420 – Resolved an issue wherein floating scan bubble issue observed with Enterprise Keyboard.
   15. SPR33755 - Resolved an issue wherein the Whitelisted apps were unable to submit XML to MX.
   16. SPR33207 - Resolved an issue wherein the Device Diagnostic tool had an issue with reading the Battery Cycles in the application for PP+ batteries.
   17. SPR33671 - Resolved an issue wherein user was unable to create WIFI profile with username as backslash followed by number.
   18. SPR33862 - Resolved an issue wherein the Screen Time off settings using Display manager CSP was not working.
   19. SPR34145 - Resolved an issue wherein indexing of the WEP key was not handled correctly.
   20. SPR33973 - Resolved an issue wherein erroneously loading default profile by providing feature to ignore disabled profiles in DataWedge.
   21. SPR33848 - Added support to included category field in intent profile in StageNow.
   22. SPR34189 - Resolved an issue wherein low ram and oom limit adjustments to provide more free memory.

23. SPR33876 - Resolved an issue wherein Display Timeout was unable set via StageNow.
24. SPR33607 - Resolved an issue where few fresh devices were unable to stage after unbox the device.
25. SPR33538 - Resolved an issue wherein the Scanner beam stuck off and No LED beam while pressing scanner button.
26. SPR33981 - Resolved an issue Czech Republic Regulatory Country could not be set using Wifi config profile.
27. Added Enterprise Browser package (com.symbol.enterprisebrowser) to white listed apps.
28. Resolved an issue wherein Settings App crashes while performing "Network Settings Reset".
29. Resolved an issue wherein Bluetooth tethering was not working.
30. A new device settings menu and an initial setup screen have been added to easily configure the Zebra analytics engine. The initial setup screen will be displayed upon bootup following an Enterprise Reset or Factory Reset. This screen can be skipped on an Enterprise Reset by provisioning using a StageNow profile (PowerMgr CSP), similar to what is available for the Google setup wizard bypass.

2. Update005 Updates:

❖ CFE-VC80x_MC33-01-01-48-NG-00-A-05.zip (GMS)

Components	New Features
OS	Added support for FIPS
Battery	Added support for battery hotswap with up to 30 seconds for Wifi/BT persistence
Scanning	Added Simulscan on the part numbers with imager Added support for RS507x Fixed Bluetooth scanner firmware update failure

DataWedge	Fixes:
	
	• SPR-33973 Resolved issue where Wrong profile gets loaded when SwitchToProfile intent is used
	
	• SPR 33538 – Not able to load the correct profile when Switch To Profile intent is used.
	
	Features:
	• Changed the default Simul Scan template in a DataWedge profile to "Default - Barcode 4.xml".
	• Added support for Dynamic template parameters in SimulScan configuration.
	• Added Multibarcode support.
	• Added a barcode separator for multbarcode feature.
	• Intent API extensions:
	  1. Added support to import full configuration database or profile configuration database via intent API.
	
	  2. Added support to get and set configuration of Serial Input Plugin settings.
	
	• Added support to install an application while in device in suspend mode and make it to work with DataWedge. (SPR - 33639)

EMDK	Fixes: • Unable to create a DataWedge profile using EMDK Profile Manager. • "getLabelType()" method returns "UNDEFINED" for mailmark and Hanxin barcode Features: Enhanced Barcode Manager API: • Added support for the Mutli-Barcode decoding feature. This feature allows scanning multiple barcodes in one single scan: o Added new value "MULTI_BARCODE" in enum ScanMode to enable decoding multiple barcodes at a time. o Added new class "MultiBarcodeParams" in ScannerConfig with parameter "barcodeCount" to set the barcode count to be scanned. Enhanced SerialComm API: • The new flowControlMode feature has been added in the SerialConfig class with RTS_CTS, XON_XOFF and NONE as possible values.
MX	Fixes: • "Zebra Mobility Extensions Version" is shown as 1.3 on Airwatch agent when UUT RAM is 85% filled • SPR- 34145: Fixed issue where Wlan with WEP key INDEX 2 is not kept
OEMConfig	Fixes: • "SignalOccurrenceOfThreat" parm is not added in threatStep
Ivanti Velocity	Integrated Velocity ATTE 2.0

3. CFE v4 Updates:

❖ CFE-VC80x_MC33-01-01-48-NG-00-A-04.zip (GMS)

1. **Android Security Patch Level:** March 5, 2018

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

2. **Updated below components:**
   o Datawedge: 6.7.34
   o StageNow: 2.10.1.1386
   o EMDK: 6.8.20.1120
   o MX: 7.2.0.6
   o File browser: 1.19.1.2
3. SPR33311 – Resolved an issue wherein RS507 is unable to connect via Bluetooth using Voxware voice application.
4. SPR33302 – Resolved an issue wherein disabling the oval capacitive key via StageNow fails.

5. SPR34267 – Resolved an issue wherein USB debugging failed to get enabled via StageNow.
6. SPR33639 – Resolved an issue wherein device stops emitting scan beam after waking up from suspend state.
7. SPR33799 – Resolved an issue wherein DataWedge was sending char 10 instead of char 13.

4. CFE v3 Updates:

❖ CFE-VC80x_MC33-01-01-48-NG-00-A-03.zip (GMS)

1. Spectre and Meltdown (CVE-2017-5753, 5715, 5754) remediation provided by updates to timer access for CVE-2017-13218.
2. Fix for bug: BT connection state does not persist across reboots, if location settings is in enabled state

Device Compatibility

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

Device Part Number	Operating System	Device Part number	Operating System
MC330K-GE3HA3NA	Android N	MC330M-RL4SG2RW	Android N
MC330K-GE3HA3RW	Android N	MC330M-SI2HA2RW	Android N
MC330K-GE4HA3NA	Android N	MC330M-SI30A2RW	Android N
MC330K-GE4HA3RW	Android N	MC330M-SI3HA2NA	Android N
MC330K-GE4HA4NA	Android N	MC330M-SI3HA2RW	Android N
MC330K-GE4HA4RW	Android N	MC330M-SI40A2NA	Android N
MC330K-GI3HA3NA	Android N	MC330M-SI4HA2NA	Android N
MC330K-GI3HA3RW	Android N	MC330M-SI4HA2RW	Android N
MC330K-GI3HA4RW	Android N	MC330M-SI4HG2NA	Android N
MC330K-GI4HA3NA	Android N	MC330M-SL2HA2RW	Android N
MC330K-GI4HA3RW	Android N	MC330M-SL2HG2RW	Android N
MC330K-GI4HA4NA	Android N	MC330M-SL3HA2NA	Android N
MC330K-GI4HA4RW	Android N	MC330M-SL3HA2RW	Android N
MC330K-GI4HG3NA	Android N	MC330M-SL4HA2NA	Android N
MC330K-GI4HG3RW	Android N	MC330M-SN3HA2RW	Android N
MC330K-GI4HG4NA	Android N	MC330M-SN4HA2NA	Android N
MC330K-GI4HG4RW	Android N	MC330M-RL2SG2US	Android N
MC330K-GL2HA3RW	Android N	MC330M-SL4HG2US	Android N
MC330K-GL3HA3RW	Android N	MC330M-SL3HG2US	Android N
MC330K-GL3HA4RW	Android N	MC330M-RL4SG2US	Android N
MC330K-GL4HA3NA	Android N	MC330M-RL3HG2US	Android N
MC330K-GL4HA3RW	Android N	MC330M-SN4HG2US	Android N
MC330K-GL4HA4NA	Android N	MC330M-SI3HG2US	Android N
MC330K-GL4HA4RW	Android N	MC330M-GL4HG2US	Android N
MC330K-GL4HG3RW	Android N	MC330M-GL3HG2US	Android N
MC330K-RC3HA4NA	Android N	MC330M-GL2HG2US	Android N
MC330K-RC3HA4RW	Android N	MC330M-GI3HG2US	Android N
MC330K-RC3HG4RW	Android N	MC330M-GI2HG2US	Android N

MC330K-RC4HA4NA	Android N	MC330K-SN4HG3US	Android N
MC330K-RC4HA4RW	Android N	MC330K-SI3HG3US	Android N
MC330K-RL3HA3RW	Android N	MC330K-GL4HG3US	Android N
MC330K-RL3HG3RW	Android N	MC330K-RC4HG4US	Android N
MC330K-RL3SG3RW	Android N	MC330K-RC3HG4US	Android N
MC330K-RL4HA3NA	Android N	MC330K-GL4HG4US	Android N
MC330K-RL4HA3RW	Android N	MC330K-GI3HG3US	Android N
MC330K-RL4HG3NA	Android N	MC330K-SP4HG4US	Android N
MC330K-SB3HA4NA	Android N	MC330K-SP3HG4US	Android N
MC330K-SB3HA4RW	Android N	MC330K-SB3HG4US	Android N
MC330K-SB3HG4RW	Android N	MC330K-SE4HG3US	Android N
MC330K-SB4HA4NA	Android N	MC330K-SE3HG3US	Android N
MC330K-SB4HA4RW	Android N	MC330K-SE2HG3US	Android N
MC330K-SB4HG4NA	Android N	MC330K-GE4HG3US	Android N
MC330K-SE2HA3RW	Android N	MC330K-GE3HG3US	Android N
MC330K-SE3HA3NA	Android N	MC330K-GE2HG3US	Android N
MC330K-SE3HA3RW	Android N	MC330K-SG4HG4US	Android N
MC330K-SE4HA3NA	Android N	MC330K-SG3HG4US	Android N
MC330K-SE4HA3RW	Android N	MC330K-SG2HG4US	Android N
MC330K-SG3HA4NA	Android N	MC330K-GE4HG4US	Android N
MC330K-SG3HA4RW	Android N	MC330K-GE2HG4US	Android N
MC330K-SG4HA4NA	Android N	MC330K-GI3HG3US01	Android N
MC330K-SI2HA3RW	Android N	MC330M-SN3HG2RW	Android N
MC330K-SI3HA3NA	Android N	MC330M-SL3HG2RW	Android N
MC330K-SI3HA3RW	Android N	MC330M-SI4HG2RW	Android N
MC330K-SI3HG3RW	Android N	MC330M-SI3HG2RW	Android N
MC330K-SI4HA3NA	Android N	MC330M-SI2HG2RW	Android N
MC330K-SI4HA3RW	Android N	MC330M-RL3HG2RW	Android N
MC330K-SI4HG3NA	Android N	MC330M-RL2SG2RW	Android N
MC330K-SL2HA3RW	Android N	MC330M-GL4HG2RW	Android N
MC330K-SL4HA3RW	Android N	MC330M-GL2HG2RW	Android N
MC330K-SN3HA3RW	Android N	MC330M-GI4HG2RW	Android N
MC330K-SN4HA3NA	Android N	MC330M-GI4HG2IN	Android N
MC330K-SN4HA3RW	Android N	MC330M-GI3HG2IN	Android N
MC330K-SP3HA4NA	Android N	MC330M-GI2HG2RW	Android N
MC330K-SP3HA4RW	Android N	MC330K-SP4HG4RW	Android N
MC330K-SP4HA4NA	Android N	MC330K-SP3HG4RW	Android N
MC330K-SP4HA4RW	Android N	MC330K-SN4HG3RW	Android N
MC330M-GI2HA2NA	Android N	MC330K-SN3HG3RW	Android N
MC330M-GI2HA2RW	Android N	MC330K-SL4HG3RW	Android N
MC330M-GI30A2RW	Android N	MC330K-SL2HG3RW	Android N
MC330M-GI3HA2IN	Android N	MC330K-SI4HG3RW	Android N
MC330M-GI3HA2NA	Android N	MC330K-SI2HG3RW	Android N
MC330M-GI3HA2RW	Android N	MC330K-SG3HG4RW	Android N
MC330M-GI3HG2RW	Android N	MC330K-SG2HG4RW	Android N
MC330M-GI40A2NA	Android N	MC330K-SE4HG3RW	Android N
MC330M-GI4HA2IN	Android N	MC330K-SE3HG3RW	Android N
MC330M-GI4HA2NA	Android N	MC330K-SE2HG3RW	Android N
MC330M-GI4HA2RW	Android N	MC330K-SB4HG4RW	Android N
MC330M-GI4HG2NA	Android N	MC330K-RL4HG3RW	Android N
MC330M-GL2HA2NA	Android N	MC330K-RC4HG4RW	Android N
MC330M-GL2HA2RW	Android N	MC330K-GL4HG3RW	Android N
MC330M-GL3HA2NA	Android N	MC330K-GL3HG4RW	Android N

MC330M-GL3HA2RW	Android N	MC330K-GL3HG3RW	Android N
MC330M-GL3HG2RW	Android N	MC330K-GL2HG3RW	Android N
MC330M-GL40A2NA	Android N	MC330K-GI3HG4RW	Android N
MC330M-GL40A2RW	Android N	MC330K-GI3HG3RW	Android N
MC330M-GL4HA2NA	Android N	MC330K-GE4HG4RW	Android N
MC330M-GL4HA2RW	Android N	MC330K-GE4HG3RW	Android N
MC330M-RL2SA2NA	Android N	MC330K-GE3HG3RW	Android N
MC330M-RL2SA2RW	Android N	MC330K-GE2HG4RW	Android N
MC330M-RL3HA2NA	Android N	MC330K-GE2HG3RW	Android N
MC330M-RL3HA2RW	Android N	MC330K-GI3HG3RW01	Android N
MC330M-RL3SA2NA	Android N	MC330K-GE2HA3US	Android N
MC330M-RL3SA2RW	Android N	MC330K-GE2HA4US	Android N
MC330M-RL3SG2NA	Android N	MC330K-SE2HA3US	Android N
MC330M-RL3SG2RW	Android N	MC330K-SG2HA4US	Android N
MC330M-RL40A2NA	Android N	MC330K-GE2HA3RW	Android N
MC330M-RL4SA2NA	Android N	MC330K-GE2HA4RW	Android N
MC330M-RL4SA2RW	Android N	MC330K-SG2HA4RW	Android N

Component Contents

Component / Description	Version(GMS)
Product Build Number	01-01-49-NG-00-A-U07-STD
Android Version	7.1.2
Linux Kernel	3.10.84
Android SDK Level	25
Platform	QC8956
Bluetooth Stack	1.1
Flash Size	16/32GB
RAM Size	2/4GB
Security Patch Level	May 1,2018
Fusion version	FUSION_BA_2_10.0.0.019_N
Simulscan	v3.0.2
Zebra Volume Control	v2.0.0.16
Zebra Software License Manager	v3.0.1

Installation Requirements

Install baseline 01-01-48-NG-00-A (GMS)

IMPORTANT NOTE:

- Upgrading to this OS version (01-01-49-NG-00-A-U07-STD LG patch v7) blocks the downgrade prior to Update005 releases.
- Users updating from 01-01-49-NG-00-A BSP baseline to LG patch v7 will be allowed only to downgrade till Update005.

Installation Instructions

Using ADB Sideload

The installation instructions assume you have ADB installed on your PC (the adb drivers and such) and your MC33x has Developer options enabled and USB debugging ON:
Instructions on HOW TO enable ADB is also captured in user guide.

1. Connect the MC33x to the PC using the USB data cable or through the cradle.
2. You may need to pull down the top menu and if you see "USB for charging", touch it and then change it to "File transfers".
3. Open Command Prompt, run *"adb devices"* and check to see if you are able to see the device's serial number.
   If yes, proceed to next step
   If not please 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 MediaPlayer. This can be ignored.
5. Download Image
   a. **CFE_ATLAS_P07_NG_01-01.49.zip** listed above in content section
   b. Reset files (Optional)
6. Entering into Recovery Mode
   a. Option 1: In Command Prompt, type *"adb reboot recovery" and click enter*.
   b. Option 2:
      • Reboot the device and keep the GUN (grip) trigger held.
      • When Zebra Technologies logo appears on the screen release the trigger
7. MC33x will reboot and land up on the Android Recovery screen.

8. If applying patch via sideload method
   a. Use UP and DOWN keys on the keypad to navigate up/down highlight item
   b. Use ENTER key on the keypad to select menu item – "Apply update via adb sideload"

9. With your Command Prompt, open, type "adb sideload" and add a space and then drag and drop the patch file on to it and click enter.
   a. Your PC screen will show files being installed and a little blue horizontal progress bar on your device will show status… And after about 6 minutes (could be 10+ minutes if installing GMS) it should be done and you should be back at the Android Recovery screen.
   b. Repeat above steps for all mandatory packages
10. *"Reboot system now"* is highlighted. Press the Power Key to Reboot.
11. Device reboots and you see Zebra on top and POWERED BY android at the bottom and after about 1 minute will transition to the MC33X splash screen with 5 dancing white dots at bottom… it will stay at this screen for a little over another minute *(could be another 7+ minutes if installing GMS)* and then you are at the Factory "Welcome" screen.
12. If you installed a GMS BSP, you will need to complete the process by setting up Wi-Fi and E-mail accounts and such. If on AOSP (non-GMS), there is no process to follow.
13. At the Home Screen, we need to verify that the BSP upgrade took place and set the Date & Time.
    a. Go to "Settings" and scroll down to "About phone" and look at the "Build number". It should start with "01-01-49-NG-00-A-U07-STD". Now you are on the correct BSP.
    b. Setting the Date and Time. If you associate to a WLAN AP, do so now, as it should automatically set the time and date… the only thing left is to set the time zone. Go to "Settings" and scroll to and select "Date & time". Scroll down to and select "Select time zone", and scroll down to and select the appropriate time zone and you are done.
14. To Check the Android Patch Level after installing the CFE package in the device,
    a. Settings->About Phone->SW Components: Device Update Version: 7
    b. ADB Shell method: Execute following command from PC's command prompt:
       $ adb shell getprop ro.device.patch.version
       $ **7**

15. Now you are all set to use your MC33X.

Using External SD card

1. Plug the MC33X into the USB & Charging Cable and then the Cable to the PC. If you have a Cradle with USB connectivity, you may use that as well.
2. You may need to pull down the top menu and if you see "USB for charging", touch it and then change it to "File transfers".
3. Download **CFE_ATLAS_P07_NG_01-01.49.zip** and drag & drop the file on External SD card
4. Entering into Recovery Mode
   • Reboot the device and keep the GUN (grip) trigger held.
   • When Zebra Technologies logo appears on the screen release the trigger
5. Your MC33X will reboot and land up on the Android Recovery screen.
6. Applying update via External SD card
   a. Use UP and DOWN keys on the keypad to navigate up/down highlight item

       b. Use ENTER key on the keypad to select menu item – "Apply update from External SDCard"

       c. Repeat above steps for all mandatory packages

7. *"Reboot system now"* is highlighted. Press the Power Key to Reboot.
8. Device reboots and you see **Zebra** on top and **POWERED BY** android at the bottom and after about 1 minute will transition to the MC33X splash screen with 5 dancing white dots at bottom… it will stay at this screen for a little over another minute *(could be another 7+ minutes if installing GMS)* and then you are at the Factory "Welcome" screen.
9. If you installed a GMS BSP, you will need to complete the process by setting up Wi-Fi and E-mail accounts and such. If on AOSP (non-GMS), there is no process to follow.
10. At the Home Screen, we need to verify that the BSP upgrade took place and set the Date & Time.
       a. Go to "Settings" and scroll down to "About phone" and look at the "Build number". It should start with "01-01-49-NG-00-A-U07-STD". Now you are on the correct BSP.
       b. Setting the Date and Time. If you associate to a WLAN AP, do so now, as it should automatically set the time and date… the only thing left is to set the time zone. Go to "Settings" and scroll to and select "Date & time". Scroll down to and select "Select time zone", and scroll down to and select the appropriate time zone and you are done.
11. To Check the Android Patch Level after installing the CFE package in the device,
       a. Settings->About Phone->SW Components: Device Update Version: **7**
       b. ADB Shell method: Execute following command from PC's command prompt:
              $ adb shell getprop ro.device.patch.version
              $ **7**

12. Now you are all set to use your MC33X.

Downloadable Software Included in this Release

Package Name	Description
CFE_ATLAS_P07_NG_01-01.49.zip	OTA incremental LifeGuard CFE v7 update software for GMS build compatible for MC33 and VC80x products

Last revised: May 24, 2018