Release Notes – *Zebra MC33x Android N Update005 based on 01-01-49-NN-00-A Release (AOSP)*

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 data capture capability
- · Rugged and ready for every day Enterprise use inside and outside the four walls

Description

Android N **01-01-49-NN-00-A Update005** (AOSP) is the first OS release that supports all the MC33x formfactors – Gun/Pistol, Turret/Rotate Head, Straight Shooter and 45 Degree Scan. The prior OS releases (01-48, update003, update004) only supports the GUN formfactor devices.

Change Notes

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

Component Contents

Package Name	Description
AT_N_FPU_AOSP_01_49.zip	Full Package Update includes all components
Atlas_N_Ent_Reset.zip	Enterprise Reset (Erases Data Partitions)
Atlas_N_Fact_Reset.zip	Factory Reset (Erases Data & Enterprise Partitions)
CFE-VC80x_MC33-01-01-49-NN-00-A-05.zip	Update 005 diff package for upgrading from previous releases (01-48, Update003, Update004)

Component Version Info

Component / Description	Version(AOSP)
Product Build Number	01-01-49-NN-00-A
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
Scanning	19.0.37.0
Simulscan (only on devices with camera)	3.0.2 SimulScanRes 2.0.2
DataWedge	6.7.39
EMDK	6.8.21.1121

MXMF / OSX	MXMF-7.2.1.0/ OSX-QCT.71.7.5.7
WiFi	FUSION_BA_2_10.0.0.017_N Application: BA_2_10.0.0.009_N Radio: BA_2_10.0.0.017_N Middleware: BA_2_10.0.0.011_N Firmware: 7.35.205.8_20180209
PTT	3.1.35
Touch FW	V26
RxLogger	5.4.10.0
Bluetooth Pairing Utility	3.11
DataAnalytics	3.0.0.1289
File Browser	1.19.1.2
Stage Now	2.10.1.1389
App Gallery	3.0.1.7
User Guide	2
Sensors (Accel, Gyro)	2061000, 2061000
Camera	2.0.002
MSRN	0.01
MobiControl	NA
ZVC	2.0.0.15
Battery Manger	1.3.8
ActiveEdge	2.5.16
SmartMU	2.4.5
Device Central	1.0.5.0
Audio	0.22.0.0
Diagnostic Tool	1.15.0.11

FingerPrint	Zebra/MC33/MC33:7.1.2/01-01-49-NN-00-A/7:user/release-keys
	Zebra/MC33/MC33C:7.1.2/01-01-49-NN-00-A/7:user/release-keys
Android security patch Level	March 05, 2018

Installation Requirements

01-01-48-NN-00-A (AOSP) was the first OS released for MC33 supporting only the GUN formfactor. Update003 and Update004 was released for bugfixes and security updates. These versions change the Build number to 01-01-49-NN-00-A.

This OS release (01-01-49-NN-00-A Update005) is the first OS version supporting all formfactors of MC33. The OS can be installed either using the
- FullPackageUpdate package (AT_N_FPU_AOSP_01_49.zip) – on any formfactor **OR**
- Update 005 diff package on top of the previous AOSP OS releases on GUN devices.

IMPORTANT NOTE: Upgrading to this OS version (01-01-49-NN-00-A Update005) blocks the downgrade to prior OS releases.

Additional Notes:

1. When switching between GMS and AOSP(Non-GMS) build, the corresponding Full Package update has to be deployed. Diff package Update (CFE) can be deployed only on the same flavor of OS, and should not be used for conversion between flavors.

2. The internal battery must be charged to at least 30% to update using recovery mode.

Please refer to Installation Instructions below for more details.

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. Files 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-NN-00-A". 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. 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 Images that needs to be applied, ie any applicable patches listed above in content section and Reset Files (Optional) and drag & drop the files 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-NN-00-A". 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. Now you are all set to use your MC33X.

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

Known Issues and Limitations

1. From OS version 01-01-49-NN-00-A Update005 onwards, downgrade to prior OS releases are blocked.
2. If the user enables "Always ON VPN" option, and then try to perform "Network Settings Reset" from device settings, a settings application crash is observed.
   Mitigation: user should disable the "VPN always on" option" and then perform "Network Settings Reset"
3. Limitation: For Simulscan usage a different profile other than Profile0 will have to be used. With Profile0 if Simulscan plug-in is enabled then when user switches to DWDemo or other scanning profile the scanning will not function, unless user relaunches DWDemo.
4. Limitation: Airwatch remote control of the device will not work when screen capture is disabled.
5. Limitation: After swapping battery and resuming the device, devices takes 15 seconds to update the correct battery State of Charge percentage.
6. Limitation: The com.wavelink.velocity folder is not created by OS until the Velocity application is opened at least once. In order to push a wldep profile before launching velocity application, user needs to create the folder manually or via MDMs.
7. Limitation: During battery swap, there will not be any LED indications.

April 24, 2018