MC9200 OPERATING SYSTEM BSP 02.13.0309 - UPDATE LOADER IMAGE RELEASE NOTES

INTRODUCTION

The MC9200 rugged mobile computer, the next generation of the industry leading gold standard for mobility, has evolved to meet changing business needs, bringing you the same signature rugged design, best-in-class barcode scanning and dependable operation. Now with the power to run applications with highly intuitive interfaces, the MC9200 will further simplify processes and increase worker productivity in your toughest environments.

Recovery update package v02.13.0309 contains the MC92 revB software. The key software updates include a preinstalled 'All Touch Terminal Emulator' Terminal Emulator client and a Battery Manager Application. MC9200 Android release v02.13.0309 provides Recovery update and Airbeam packages for installing the OS release.

This software is intended to be loaded and run on specific MC92N0 SKU devices. It is important that care be taken to match the device configuration with the appropriate Recovery update package. If an incorrect Recovery update package is loaded, the device may not boot. Please refer to the device compatibility section below for more details of the supported SKUs.

COMPONENT DESCRIPTION AND VERSION

Product Build Number	02-13-09-4AJ22-K-00-M1-030916
Android Version	4.4.4
Linux Kernel	3.4.48
x-loader	1.41.0
u-boot	1.1.4
Android SDK Level	19
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etc)	
Bluetooth Stack	4
BT Pairing Utility	3.3
Flash Size	2G
RAM Size	1G
MSP Agent/RD	7.08.85
Scanning Framework	6.23.0
Datawedge	3.3.12
DWDemo	2.0.7
OSX/MXMF	TI_OSX_4.5-2, 5.0.1.4
Wi-Fi	FUSION_A_4.01.0.0.011
RxLogger	3.0.0.52
MLogManager	6.52
EA	2.54
SPAM	4.8
StageNow	2.2.1.1445
B2M Elemez	1.0.0.260
Data Analytics	1.0.2.1495
App Gallery	2.2.0.1
SOTI	12.2.0
EMDK	4.0.4.0

ZVC	1.1.15
BatteryManagement	1.2
PTT	3.1.20
Terminal Emulation	2.0.9.4896
All Touch Terminal Emulator	1.0.1.2044

FEATURES ADDED/SUPPORTED

Features Added/Supported since previous release:
New Features:
- Preinstalled Wavelink's 'All Touch Terminal Emulator'
- Battery Manager application.
- Home screen customization
- EMDK APIs for DEX support

General SPRs fixed:
- SPR28994 : Fixed an issue on Picklist feature for MC92KK

Special Notes:
- MC92 would continue to have the preinstalled and prelicensed version of original Terminal Emulation (Green screen Android TE). The new All touch terminal emulator (ATTE) velocity client is in addition to that. ATTE is preinstalled but not prelicensed. If customer wants to use ATTE, he has to go to Wavelink or App Gallery to download ATTE demo license key which provides the keycode good for 30 days.

COMPONENT RELEASE NOTES

FUSION_A_4.01.0.0.011:

New Features:
- Added Auto Proxy Config feature support A PAC file or Proxy AutoConfiguration file defines how web browsers can automatically select an appropriate proxy for accessing a given URL
- [Zebra Mobility Extensions] Added Scan assist's channel request feature Using this feature, MC92 retrieves roaming related information from the Zebra wireless LAN infrastructure without doing scans. This is used for improving roam.

SPRs fixed:
- SPR 28701 : Device fails to connect to EAPFAST network when authenticated inband PAC provisioning is disabled.
- SPR 29135 : WLAN Signal Strength is not reported when the display goes OFF
- SPR 28470 : When proxy setting is applied, device is not able to access INTRANET site but able to go to INTERNET sites.
- SPR 26920 : Device hangs/vibrates when both BE and VI Block Ack sessions are active.

OSX4.5/MX5.0.14:

- Enable/Disable screen capture
- Enable/Disable Screen shot for VA
- Additional Locale support
- Vendorspecific DHCP Options

SCANNER FRAMEWORK 6.23.0:

New Features:
- Support for new trigger modes Timed Hold, Timed Release, Press and Release.
- Support for Auto Scanner Firmware Update – Scan engine on the device is updated with the validated version of the firmware.

SPRs fixed:
- SPR 29184: Unable to scan RSS14/GS1 Databar Barcodes

DATAWEDGE 3.3.12:

- Added new Data Capture Plus. Replacement for Data Capture Panel.
- Added an option in intent plugin configuration to enable receiver foreground flag when broadcasting intents.
- Added new intents to query the current scanner status and to broadcast scanner status changes to user application.
- Added a setting to keep Bluetooth scanner enabled on suspend in order to resume the device with Bluetooth scanner trigger press and scan straight away.

DATAANALYTICS 1.0.2.1495:

New Features:
- ANR stability issues fixes
- Log file upload This feature allows uploading of DataAnalytics application log files to Analytic Cloud. File is compressed (gzip) before uploading. Please Note: File Upload setting should be enabled or set to true for this feature to work.
- NV file rolling When NV file size reaches a default set limit it will be compressed and stored in the configured path. User can able to configure no. of NV files to be rolled in the device and size of the NV file. Compressed file format will be: <Timestamp>_<GroupFileName>.gz
- New metrics included in Common Tools DCA Below are the new metrics:
1. BatteryUsageNumber
2. BatteryUsageDecommissionThreshold
3. BatteryHealthPercentage
4. BatteryPercentDecommissionThreshold
5. BatteryDecommission
6. DataAnalyticsVersion
7. DeviceModel
8. DeviceSerial
9. AndroidVersion
10. BuildNumber
- Config file clean up Removed unused attributes in the config file so that engine requires less computation and config readability is increased.
- Log file enahancement (Json format) This feature enables DataAnalytics application log entries to be stored in Json format.
- Clear All CSP DAE data This feature enables user to delete data (files and folders) of DataAnalytics and AnalyticsMgr CSP. But application logs and compressed nv files placed on external sdcard (if sdcard available) or internal sdcard will not be deleted,

user has to delete manually if they need. Implicit metrics and events's config also get cleared.

- Individual Metrics and events for all existing DCA Data Analytics Engine collects device data and uploads to cloud. DCA collection can be enable or disabled using StageNow Tool. User can enable either individual metrics or level based groups (Low, Medium, and High) based on level selected Engine will decide what metrics needs to collect.
- Default config for WAN devices The default config will contain the below listed metrics which will be enabled on WAN device immediately after booting from the box:

1. BatteryLevel
2. BatterySerial
3. BatteryUsageNumber
4. DataAnalyticsVersion
5. DeviceModel
6. DeviceSerial
7. BuildNumber
8. AndroidVersion
9. AvailablePhysicalMemory
10. AvailableStorageMemory
11. WwanSignalQuality

- Data and event throttling DataAnalytics engine allows 3rd party applications to register as a DCA. Once 3rd party DCA is successfully configured and engine receives new configuration to enable 3rd party DCA metrics, engine will collect data for those DCA on interval specified in the configuration. It is necessary that engine has to monitor all DCAs data and events triggered from each DCA. This feature would enable engine to monitor all DCA data and events it uploads.
- Commands for upload single and all log files There are 2 types of commands to upload log files, they are Engine.UploadCurrentLogFile and Engine.UploadAllLogFiles. Engine.UploadCurrentLogFile command will allow uploading of log file that is currently being rolled (i.e. DataAnalytics.log.0 file) and Engine.UploadAllLogFiles command will allow uploading of all log files present in the log directory. Please Note: File Upload feature should be enabled or set to true for this feature to work.
- Commands for DCA DataAnalytics engine collects data from each DCA configured at regular intervals and uploads to cloud. Whenever engine receives new commands, engine will perform action based on intervals specified in the configuration. There are total 4 types of Analytics Commands, they are No Command, Engine.UploadCurrentLogFile, Engine.UploadAllLogFiles and Custom Command. Please Note: File Upload feature should be enabled or set to true for this feature to work.
- Start DCA based on device capabilities This feature allows each DCA to decide if service needs to start or not based on device capabilities. For example MC40 device does not have GPS and WWAN capabilities. If user configures with GPS and WWAN metrics, engine will try to start respective services. GPS and WWAN DCA's can return saying they are not capable to run by identifying the feature support. And then engine will not start those DCAs. Hence engine avoids running DCA services which are not needed.
- MySecondDCA We can create our own DCA (Data Collection Agent) to collect custom metrics from the device and upload to desired destination. DataAnalytics DCA Developer Kit contains essential resources that can guide the development process. Data collection for Level based metrics, individual metrics and events are all supported.

EXCLUSIONS

Ethernet on the 4slot charging cradle is not supported in this release.

CONTENTS

1. M92N0KXXXRUxx20309.zip Recovery OS Update package

2. M92N0KXXXABxx20309.apf Airbeam OS Update package

3. M92N0KXXXFRxx20309.zip User Fastboot package

4. M92N0KXXXAPxx20309.apf Airbeam Diff Update package (Diff update from 081815)

5. M92N0KXXXRPxx20309.zip Recovery Diff Update package (Diff update from 081815)

DEVICE COMPATIBILITY

This software release has been approved for use with the following devices. Note that all MC92 keypad types are supported with this release so the keypad type identifier is shown as 'x' (e.g. GA0SYxAA6WR) in the below device list.

Device P/N	Operating System
	KitKat 4.4.4
MC92N0-GA0SYxAA6WR	-
MC92N0-G30SYxAA6WR	-
MC92N0-GM0SYxAA6WR	-
MC92N0-GL0SYxAA6WR	-
MC92N0-GJ0SYxAA6WR	-

INSTALLATION REQUIREMENTS

1. The software update requires a supported MC9200 SKU hardware device as listed in the Device Compatibility section

2. Enterprise Reset and Factory Reset package files are available on the MC92 Software Download section on Support Central

INSTALLATION INSTRUCTIONS

- OS Recovery Update Package (SD card method)

1. Copy the recovery update zip file to a SD card.

2. Remove the MC92 keypad (the device will suspend), insert the SD card, replace keypad.

3. Press power key to resume device.

4. Press and hold the Power button on the device until the Device options menu appears.

5. Tap on Reset to reboot the device.

6. When the device is rebooting hold the gun scan trigger to enter Recovery update mode.

7. When the Recovery Mode home screen (Android logo) appears then release the gun scan trigger.

8. Use keypad arrow keys to select "apply update from sdcard" option

9. Press keypad Enter key to select the option

10. Use keypad arrow keys to select recovery update zip file.

11. Press keypad Enter key to select the recovery update zip file.

12. Press keypad Enter key to select "reboot system now" to reboot the device.

- OS Recovery Update Package (USB method)

1. Connect MC9200 to PC via USB (note, PC must support MTP).

2. Copy the recovery update zip file the internal memory of the MC9200. The internal memory will be shown in PC file browser as MC92N0\Internal storage.

3. Press and hold the Power button on the device until the Device options menu appears.

4. Tap on Reset to reboot the device.

5. When the device is rebooting hold the gun scan trigger to enter Recovery update mode.

6. When the Recovery Mode home screen (Android logo) appears then release the gun scan trigger.

7. Use keypad arrow keys to select "apply update from emulated storage" option

8. Press keypad Enter key to select the option

9. Use keypad arrow keys to select recovery update zip file.

10. Press keypad Enter key to select the recovery update zip file.

11. Press keypad Enter key to select "reboot system now" to reboot the device.

- OS AirBEAM Update package

Please refer Mobility Service Platform deployment guide for instruction.

Note: Battery must be 30% charged to perform update

KNOWN ISSUES

- 50K Scan Stress test has failed when performed while the device was on cradle. Note that 50K scan stress test has passed when the device is not on cradle.

PART NUMBERS

1. M92N0KXXXRUxx20309.zip

2. M92N0KXXXABxx20309.apf

3. M92N0KXXXFRxx20309.zip

4. M92N0KXXXAPxx20309.apf

5. M92N0KXXXRPxx20309.zip

RELEASE DATE

June 10, 2016