Release Notes MC18N0-KK-SKU v01.12.0806

Introduction:

The MC18 personal shopper solution is a smartphone-style, state-of-the-art mobile computer that transforms the shopping experience. As the next generation self-scanning solution, the MC18 enables retail shoppers to easily and conveniently scan items as they shop, saving time and avoiding the need to wait in lines at checkout. Retail shoppers can also receive discount coupons, as well as suggestions for complementary items

Recovery update package v01.12.0806 contains the software required to update an MC18N0 SKU device to KitKat OS.

This software is intended to be loaded and run on the MC18N0 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.

Component Description and version

Component / Description	Version
Product Build Number	01-12-04-4AJ22-K-00-M1-080615
Android Version	4.4.4
Linux Kernel	3.4.48
Android SDK Level	19
Bluetooth Stack	4
Flash Size	4 GB
RAM Size	1 GB
MSP Agent/RD	7.08.85
Scanning Framework	5.31.0
Datawedge	3.1.20
DWDemo	2.0.6
Camera	NA
OSX/MXMF	TI_OSX_4.4-3 , 4.4.3.6
Wi-Fi	FUSION_A_4.00.0.0.035
PTT	NA

RxLogger	3.0.0.51
MLogManager	MLogManager v06.52
Touch FW	3.0.AB
EA	2.54
SPAM	0.7
StageNow	2.1.1.1306
B2M Elemez	1.0.0.214
Data Analytics	1.0.1.2107
App Gallery	2.1.0.1
SOTI	12.2.0 Build 23434
EMDK	3.1.38
ZVC	1.1.7

Features Added/Supported

- Included changes for APA v1 feature content

    1. Storage and non-storage path guidelines
    2. DHCP Options
    3. Battery Extras

- Support Bluetooth 4.0 (Supports both Classic and Bluetooth LE) with Broadcom Bluetooth Stack (Bluedroid)

- Included

    1. StageNow client

    2. B2M Elemez

    3. Data Analytics

    4. App Gallery

    5. SOTI MobiControl Stage

    6. Zebra Volume Control

- 2D Scanning support

- Support for Cradle operations

- Device diagnostics interface

- Support to enable/disable soft navigation bar and/or soft power button

Component Release Notes:

FUSION A_4.00.0.0.035 :

1.   New features:

a. 802.11k: Fusion A4.00 adds support for 802.11k. Using 802.11k Neighbor Report, MC18 will retrieve details of neighboring APs from current AP if AP also support this feature. This is used for improving roam performance. 802.11k is enabled on MC18 by default.

b. Null Data Power save: Fusion A4.00 supports Null Data Power save method. In this method, Wi-Fi will go to sleep state only if there were no Tx or Rx packets in the last 100ms. If AP indicates a buffered frame for device in TIM element of beacon, MC18 will exit Wi-Fi sleep mode by sending 802.11 NULL data packet to retrieve buffered frames from AP. By default, MC18 uses WMM-PS as the default power save mode. Power save mode can be changed using Wi-Fi CSP.

c. Band Preference: Band Preference feature allows device to prefer one frequency band over the other during initial connection and roam. By default, MC18 will prefer 5GHz band. If there are no good APs available for connection/roam in 5GHz, MC18 will look for APs in 2.4GHz frequency band. Band Preference settings can be changed using Wi-Fi CSP to prefer either 5GHz or 2.4GHz band, or to disable preference.

d. Updated regulatory rules: Fusion A4.00 uses updated regulatory rules. 5GHz channels 120—132 are opened up for USA and countries following US rules.

e. Zebra Mobility Extensions
Zebra Mobility Extensions make use of 802.11 specifications and Zebra proprietary extensions to achieve the highest level of performance, efficiency and reliability. These features are available only when MC18 is deployed in a WLAN infrastructure that uses Zebra APs. These features are enabled by default on MC18. It can be turned off using Wi-Fi CSP.

   I. Coverage Hole Detection: Using 802.11k and Zebra proprietary extensions, MC18 can report gaps in Wi-Fi coverage to Zebra WLAN infrastructure so that administrator can take corrective actions.

   II. Aggregated Fast Transition (Aggregated FT): Aggregated FT improves on IEEE 802.11r, Over-the-DS fast roaming in conjunction with Zebra wireless LAN infrastructure. Using this feature, MC18 can achieve reliable and consistent fast roams.

   III. Scan Assist: Using this feature, MC18 retrieves roaming related information from the Zebra wireless LAN infrastructure without doing scans. This is used for improving roam.

2. SPR fixes

   Fixes for following SPRs are available in Fusion A4.00

   a. SPR 27679 [Occasionally Wi-Fi stop scanning and hence failed to roam]
   b. SPR 27019 [Add support for subnet roam]
   c. SPR 28080 [Unable to create TLS profile after changing language]
   d. SPR 26581 [Sometimes Wi-Fi stops or device hangs when connected to Ruckus AP.]

MX4.4 Feature List:

Feature	Brief Description
Clear Clipboard	Clearing the data copied into clipboard
Enable/Disable Clipboard	Enable/Disable the clipboard features to cut/copy/paste
Factory Reset	Wipe - Data+Enterprise+Cache
Enterprise Reset	Wipe - Data+Cache
Full Device Wipe	Wipe - Data+Enterprise+Cache+Internal SD+External SD
Enable/Disable Enterprise Reset in Settings App	API to Enable/Disable the Enterprise Reset UI in Settings Application
Display OSX Version	OSX version can be seen in Settings => About Phone => SW Components => OSX version
Enable Disable AppInfo Access	Enabling and disabling , App info from settings
Allow/Disallow App to submit XML	Add/delete/query packages which are allowed to SubmitXML to MxMgtFw
Enable Disable MTP	MediaTransfer mode can be Blocked and Unblocked
Enable Disable External USB Storage	Enable/Disable Mounting of External USB Pen-drive storage with device
Enable/Disable Browser	Enable/Disable Native Browser Address Bar
Enable/Disable access to Applications Section of Settings UI	Hide Apps section of Settings Application
Initiate NTP Sync	Enable/Disable/Initiate NTP
Ethernet Settings	Enable/Disable & TurnOn/TurnOff
Enable/Disable Use of Background Data	Enable/Disable Background data in SIM devices
Auto Correction	Enable/Disable the ability of auto correction of words in soft keyboard
Wifi	Enable/Disable Wifi
Safe Mode	Enable/Disable Safe mode
Unknown sources	Enable/Disable Unknown soures UI
Enable/Disable Home Key	Enable/Disable Home Key
BT Pairing Pop up	Enable/Disable BT pairing pop up
Sdcard Usage	Enable/Disable Sdcard Usage

Enable/Disable Power button instantly lock	Enable/Disable Power button instantly lock UI
Turn On/Off Power button instantly lock	Turn On/Off Power button instantly lock
Enable Disable Airplane mode	Enable/Disable Airplane mode UI
Turn On/Off Airplane Mode	Turn On/Off Airplane Mode
Enable/Disable Power button menu items	Enable/Disable menu displayed when power button is long pressed
Hide/unhide Power button menu	Hide/Unhide menu displayed when power button is displayed

Scanner Framework 5.31.0

Major Features
1. Added support for Mailmark, HAN XIN symbologies.
2. Support for Reduced Quiet Zone for Code128, Code 39, UPCA/EAN symbologies.
3. Added support for Continuous Read Aim Type.
4. Separate volume control for Scan Beep with ZVC.
5. Support to turn illumination on/off.
6. Support for SHIFT_JIS and ISO-9001 character sets.
7. Trigger-to-beep performance improvements.

SPR Fixes
1. SPR 26580 : DWDemo no longer displays Symbologies of scanned barcodes.
2. SPR 26729 : DPM barcode scan improvements in Avalanche IK version 6.02T02.24_COD_7.
3. SPR 26305 : Fix for GS1 Databar Decoding issue.

DataWedge 3.1.20

1. SPR 23137 : Multiple decodes performed for one barcode when pressing both Hard and soft trigger in DW Demo.
2. SPR 25359 : DataWedge crashes when string at criteria is set in the ADF configuration.

DataAnalytics 1.0.1.2107

1. Major features:
   a. Provides ability to enable and disable Data Collection

- This feature can be used to disable/enable Data Analytics and B2M services on the device, thus disabling Data Collection

b. Enables collection of Level based metrics from devices and made available in Cloud to be visualized in the Analytics Platform
- Metrics Supported are
  - Low Collection Frequency (Collected every 1 hour)
    - AcChargeCount
    - ACLineStatus
    - BatteryLevel
    - BatteryStatus
    - BatterySerial
    - BatteryPartNumber
    - BatteryManufactureDate
    - BatteryTemperature
    - BatteryVoltage
    - BatteryBackupVoltage
    - BatteryRatedCapacity
    - BatteryUsageNumber
    - DisplayOnTime
    - DeviceCpuTimeDelta
    - ProcessCpuTimeDelta
    - DataAnalyticsVersion
    - DeviceModel
    - DeviceSerial
    - AndroidVersion
    - BuildNumber
    - AvailablePhysicalMemory
    - AvailableStorageMemory
    - TotalPhysicalMemory
    - TotalStorageMemory
    - TotalMemory
    -
  - Medium Collection Frequency (Collected every 30 minutes)
    - AcChargeCount
    - ACLineStatus
    - BatteryLevel
    - BatteryStatus
    - BatterySerial
    - BatteryPartNumber
    - BatteryManufactureDate
    - BatteryTemperature
    - BatteryVoltage
    - BatteryBackupVoltage
    - BatteryRatedCapacity
    - BatteryUsageNumber
    - DisplayOnTime
    - DeviceCpuTimeDelta
    - ProcessCpuTimeDelta

- DataAnalyticsVersion
- DeviceModel
- DeviceSerial
- AndroidVersion
- BuildNumber
- AvailablePhysicalMemory
- AvailableStorageMemory
- TotalPhysicalMemory
- TotalStorageMemory
- TotalMemory
- WlanRadioOnTime
- IncomingCallAttempt
- IncomingCallDuration
- OutgoingCallAttempt
- SuccessIncomingCall
- WwanSignalQuality
- WwanRadioOnTime

- High Collection Frequency (Collected every 10 minutes)
  - AcChargeCount
  - ACLineStatus
  - BatteryLevel
  - BatteryStatus
  - BatterySerial
  - BatteryPartNumber
  - BatteryManufactureDate
  - BatteryTemperature
  - BatteryVoltage
  - BatteryBackupVoltage
  - BatteryRatedCapacity
  - BatteryUsageNumber
  - AcChargeTime
  - DisplayOnTime
  - DeviceCpuTimeDelta
  - ProcessCpuTimeDelta
  - DataAnalyticsVersion
  - DeviceModel
  - DeviceSerial
  - AndroidVersion
  - BuildNumber
  - AvailablePhysicalMemory
  - AvailableStorageMemory
  - TotalPhysicalMemory
  - TotalStorageMemory
  - TotalMemory
  - WlanRadioOnTime
  - WlanReceiveByteDelta
  - WlanReceivePacketDelta
  - WlanSignalQuality

- WlanTransmitByteDelta
- WlanTransmitPacketDelta
- IncomingCallAttempt
- IncomingCallDuration
- OutgoingCallAttempt
- SuccessIncomingCall
- WwanSignalQuality
- WwanRadioOnTime
- WwanErrorRate
- AltitudeWRTSeaLevel
- DeviceState
- DeviceStateOnTimeDelta
- GPSAccuracy
- GPSLocation
- Heading
- MaxSatellitesCount
- PositionalDilutionOfPrecision
- SatellitesCount
- Speed
- UTCTime

c. Enables Self Update of Data Analytics Client on the device
New versions of Data Analytics Client can be updated on the device
using this mechanism

Exclusions:

- Cradle Firmware updater utility not included in this release
- Enterprise browser not pre-loaded on the device.

Contents

1. M18N0KXXXRE0000001.zip – Enterprise Reset Recovery Package
2. M18N0KXXXAE0000001.apf – Enterprise Reset AirBeam Package
3. M18N0KXXXRF0000001.zip - Factory Reset Recovery Package
4. M18N0KXXXAF0000001.apf - Factory Reset AirBeam Package
5. M18N0KXXVRUxx10806.zip - KK Recovery OS update package
6. M18N0KXXVAUxx10806.apf - KK AirBEAM OS update package

Device Compatibility

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

Device P/N	Operating System
	KitKat 4.4.4
MC18G-00-01	-
MC18G-00-10	-
MC18G-00-01A	-
MC18G-00-10A	-

Installation Requirements

1. The Software update requires high memory SKUs (1GB RAM/4GB Flash) of MC18 devices listed above.
2. Enterprise Reset and Factory Reset package files are available on the MC18 Software Download section on Support Central

Installation Instructions

- OS Recovery Update Package

    1. Connect the USB cable from your PC to the device
    2. Make sure MTP mode is selected in the USB settings in the device and MTP drivers are installed in your PC
    3. The internal SD card of MC18 will be seen in your PC as mounted drive MC18N0.
    4. Copy the recovery update zip file to the root folder on internal SD card
    5. Remove USB cable from PC
    6. Press and hold scan button for approximately 10 seconds, while in cradle to reboot the terminal. Unit will power off at this point. Release the Scan button then again, press the scan button briefly and release it, and device will start powering on.
    7. Keep holding down scan trigger immediately.
    8. When Android logo appears on the screen release scan trigger (Note: If the terminal is in cradle and the trigger is pressed for more than 10 seconds it will power off. So in step above, ensure to remove the trigger as soon as the android logo appears.)
    9. Navigation in the recovery menu is as follows -> Tap on the screen to switch through the options/files -> Press scan trigger to select an option/file.
    10. Select "apply update from On Device Storage"
    11. Select the zip file package on /sdcard that you want to update to
    12. When update is complete , select "reboot system now"

- OS AirBEAM Update package
  Please refer Mobility Service Platform deployment guide for instruction.

  Note: Battery must be 30% charged to perform update

Known issues:

- On first boot after FactoryReset or FullFactoryReset it is observed randomly on certain devices that volume controls shows empty
  Recoverability: Perform FactoryReset or FullFactoryReset and on first boot the user has to wait at least 60s from when the launcher screen is shown, and then only access volume controls.

Part Numbers

1. M18N0KXXXRE0000001.zip
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