Release Notes MC18N0-KK-SKU v02.13.0312

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 v02.13.0312 contains the MC18 revB software. Along with different feature additions, the new software also adds support for the new display panel.

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:

Product Build Number	02-13-12-4AJ22-K-00-M1-031216
Android Version	4.4.4
Linux Kernel	3.4.48
x-loader	1.41.0
u-boot	1.1.4
Android SDK Level	19
Platform (TI/MPA/ etc)	TI -omap4 4430 - 4AJ22
Bluetooth Stack	4
Flash Size	4G
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
Touch FW	3.0.AB
EA	2.54
SPAM	4.7
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

Features Added/Supported since previous release:

New Features:

- Support added for Sharp revC panel and Tianma display
- Additional fixes for the display shadowing issue on older panels.
- IMPORTANT NOTE: This OS version adds downgrade protection to older released os versions. Once upgraded to this version, users shall not be permitted to downgrade to previous released OS versions. This is to ensure that the latest display settings are not reverted back.
- Added Toshiba A15nm eMMC support.
- Cradle Firmware updater application.
- Enterprise browser included on device.
- Battery Manager application.
- Home screen customization
- Support to enable/disable soft navigation bar and/or soft power button instantly

General SPRs fixed:

- SPR 28626 : Increased dalvik heap size from 512M configuration to 1024M

Component Release Notes (only major features since last release):

FUSION_A_4.01.0.0.011:
New Features:
- Added Auto Proxy Config feature support - A PAC file or Proxy Auto-Configuration 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, MC18 retrieves roaming related information from the Zebra wireless LAN infrastructure without doing scans. This is used for improving roam.

SPRs fixed:
- SPR 28701 : Device unable to connect EAP-FAST profile when only Anonymous PAC provisioning is enabled in Radius server
- 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 connected to Ruckus and Aerohive APs.

OSX4.5/MX5.0.14:
- Enable/Disable screen capture
- Enable/Disable Screen shot for VA
- Additional Locale support
- Vendor-specific 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 plug-in 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 enhancement (Json format) - This feature enables DataAnalytics application log entries to be stored in Json format.
- Clear All CSP DAU 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:
Nil

Contents:
1. M18N0KXXXVRUxx20312.zip - KK Recovery OS update package
2. M18N0KXXVAUxx20312.apf - KK AirBEAM OS update package
3. M18N0KXXXRPxx20312.zip – KK Recovery diff update package
4. M18N0KXXXAPXX20312.apf – KK AirBEAM diff update from 080615

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:
- First time launch of enterprise browser on the device (out of the box) after a reboot, disables scanner. User need to open Datawedge->Profile and quit to enable scanning again. Refer to EB documentation to know more on methods to scan in EB based applications.

Part Numbers
1. M18N0KXXXRUxx20312
2. M18N0KXXXAUxx20312
3. M18N0KXXXRPxx20312
4. M18N0KXXXAPXX20312

Release Date: March 21, 2016