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Release_Notes_ADK_4.8.41

Release Notes ADK 4.8.41

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Introduction

This document describes the content and changes in the ADK 4.8.41 release. It includes details about supported hardware,

components used, major changes and bug fixes as well as known issues and updates to procedures.

A summary of planned or implemented incompatible changes, which may require changes to applications, are provided as an annex.

Please check the installations section, to understand restrictions on downgrading to older ADK versions.

Content

This release provides files as follows:

Product Name	Package Name	Component identifies as
ADK Middleware SDK and system load files	adk-full-ext-4.8.41-1978.zip	SLP ADK-4.8.41
ADK Middleware Documentation	adk-overview-programmers_guide-4.8.41-1978.zip	N/A
ADK Middleware Components Release Notes	adk-component-release-notes-4.8.41-1978.zip	N/A
ADK System Upgraders	adk-upgrader-4.8.41-1978.zip	N/A
ADK V/OS	31615400	31615400
ADK V/OS2	31615400	31615400
ADK V/OS SDK (combined ADK+OS SDK)	adk-sdk-vos-4.8.41-1978.zip	N/A
ADK V/OS2 SDK (combined ADK+OS SDK)	adk-sdk-vos2-4.8.41-1978.zip	N/A
ADK ANDROID SDK (combined ADK+OS SDK)	adk-sdk-android-4.8.41-1978.zip	N/A
ADK VHQ sys config remove package	dl.VHQconfig-remove-prod.tgz	N/A

Installation

Important note: On any Engage device with battery, please calibrate the battery after installing the new version. Go through a complete discharge-charging power cycle at least once.

Secure Installer note:

To update previous releases to ADK 4.8.41, please follow the instructions below:

• All devices:

Please do not downgrade this version to ADK 4.8.23.x or older, or to any release in the ADK 4.7 or older branches. A downgrade will delete all installed keys.

• Engage:

- Please read the section in the programmers guide and in the appendix of this document before use on Engage devices. You may not be able to uninstall user applications otherwise.
- o Field update
 - **Field update:** All payment and base devices need be updated to ADK 4.4.5 first when using standard packages.
 - By default differential updaters are provided with the release.
- o Deployment
 - **Prerequisite**: Update device to **ADK 4.4.5** or a newer release.
 - Please use **dl.adk-4.8.41-1978-vos2-engage-prod.tgz** to update to this ADK version.
 - Please use the SDI and related packages for other types of devices.
- o Important note: We advise to not cut the power during software updates.

• V/OS on Ux:

- Important note: Downgrading the SBI boot loader will tamper your device.
- For ADK 4.8 there are two types of buildall file for Ux.
 - Original buildall (with SBI included) and no_SBI (new additional buildall). If you use the original buildall file the latest SBI, 3.17.1 will be installed. If you try to downgrade to a build with an older SBI your device will tamper. If you want to keep the old SBI, pre 3.17.1, please use the no_SBI buildall file.
 - The Ux diff update package will not update the SBI file.

o Field update

- The following upgraders below are sample updater files for updating UX devices in the field.
 - **Field update from ADK 4.7:** Update the device to ADK 4.7.45 first and then update from ADK 4.7.45 with **dl.adk-4.8.41-1978-vos-ux-diff_4.7.45-1930-prod.tgz**
 - Field update from ADK 4.8: Update the device to ADK 4.8.40 first and then update from ADK 4.8.40 with dl.adk-4.8.41-1978-vos-ux-diff_4.8.40-1971-prod.tgz

• Important note:

■ For better behavior of software installs in case of unexpected power failures, we strongly advice to install software in form of compressed tar download files '.tgz' instead of '.tar'

files. This note only applies to the top most layer, the download file, no other changes are required.

■ We advise to not cut the power during software updates.

Solution Package Overview

ADK 4.8.41 provides solution files, which combine the operating system, middleware components and EMV kernel in one single loading image.

Please review the supported kernel version list and update your desired file accordingly. You must only enable kernel versions, which are certified for your device, country and customer.

In some cases, due

to included user components, solutions might need to be resigned before loading into a unit.

For more details, please check the ADK programmers guide, chapter "ADK Packages and Update Procedure", in particularly "System Installation Download Files".

Documentation

For detailed information on using any of the ADK features, please refer to comprehensive documentation at adk-overview-programmers_guide-4.8.41-1978.zip.

Prerequisites/Requirements

Hardware Requirements

This ADK release is for use on production hardware terminal units specified in section "Supported Platforms".

Software Requirements

No special software is required for use with this ADK release. This release provides all required software to operate

a terminal, except a payment application.

The use of Verifone Development Environment (VDE) is recommended when creating new applications.

Release Overview

ADK-4.8.41 is a cadence release on the ADK 4.8 maintenance branch

Release is focused on fixing bugs plus further support for European Accessiblity Act (EAA) through the addition of a text to speech engine

The release is in full parity with ADK 4.4.33, ADK 4.6.43 and ADK-4.7.46

Branch maintenance policy: ADK 4.8 is in active maintenance and receives regular updates including bug fixes, minor features and middle-ware component changes. Please consider moving to ADK 5.0 to pick up latest features and support for the newest Verifone models when updating customer solutions.

Supported Platforms

MX and VX VOS devices and all Verix eVo devices is only supported on ADK 4.4 (not supported on ADK 4.6, 4.7 & 4.8)

Carbon 8 and Carbon 10 devices is only supported on ADK 4.6.

Devices no longer supported:

- Trident: MX915, MX925, Vx V/OS
- Verix eVo: All devices
- Carbon 8, Carbon 10

This ADK release targets the following Verifone products:

- Engage: P200, P200 Plus, P400, P400 Plus, V200, M400, V400c, V400c Plus, P400 Dual MSR
- Engage Portable: V200t, V205c, V210, V240m, V240m Camera, V400m, E280 Speaker, E285, E235
- Engage: CM5, M440, M424
- Trident: UX300, UX301, UX410 and Ux115

Important note: Use CM5, M440 and M424 only in combination with an approved Android OS version. The same requirement applies to Carbon 8 and Carbon 10 using ADK 4.6.

Component Versions

This ADK Release provides following component versions:

- Abstraction
 - Crypto Abstraction 1.4.2
 - Reader Abstraction 1.7.12
 - Reader Synchronous Cards 1.0.7
- ADK Fonts 1.6.1
- Agent System remote management (e.g. VHQ):
 - o AGT 5.0.5.3 System Remote Agent
 - AGT-SUBDEV 4.3.40.2 System Remote Agent for Android Subdevices (e.g. CM5, M424 and M440)
- AST 1.9.3 Anti Skimming Tool
- Base Updater 1.0.3 Updating base software
- CCP 1.93.0 Communication Control Panel
- COM 2.149.0 Communication service
- CPL 2.8.4 Commerce Platform Library
- EMV CT, CTLS and MSR Card Services
 - CRD 5.4.3 EMV service
 - CRD-SYNC 1.3.1 CRD-SYNC service
 - o MSR 2.9.0 MSR service
 - TEC 2.9.6 Technology selection service
- CTLS L1 Library 1.2.52
- EVT 2.6.19 Event service
- FPS 1.3.3 Fingerprint Sensor Library

- GDA 1.0.5 Global Diagnostic Application
- GUIPRT 2.60.5 Graphical User Interface service
- INF 1.16.14 Information Database service
 - o SQLITE 1.4.0
 - o EXPAT 1.1.9
- IPC 1.31.1 Inter Process Communication
 - IPC-CFG 1.0.17
- ISO8583 1.6.1 ISO8583 protocol Communication
- LOG 2.21.5 Logging service
- NAV 1.1.0 Navigator Gateway
- NAVLib 1.6.11 Navigator Library
- NFC 1.21.6
 - o NFC VAS 1.11.2
 - NFC Applepay 1.13.2
 - o NFC VWI 1.12.5
- REGEX 8.41.3
- PACKMAN 1.13.0 Tool for managing archives
- PERSO 1.3.0 Ux Personalization
- PP1000 1.3.0.3 Pinpad communication library
- PRX 3.0.80 Cloud proxy
- SBI 3.17.1 Secure Boot Image
- Secure Data Interface SDI:
 - o SDI 4.32.6-264-P2PE-1.6.43 Secure Data Interface
 - o SDI-API 1.21.0 High level C++ client library
 - SDI-CLIENT 1.34.0 Compatibility layer
- SEC 2.5.7 Security service
- SKIMMERDETECT 1.1.0 Anti Skimming Tool Library
- SLP ADK-4.8.41 Solution package version
- SOUND 1.3.1 Sound library
- SYSTEM SERVICES components
 - SYSINFO 3.106.13 System Services
 - SYSMAC 3.85.27 Multi application controller
 - o SYSPM 1.44.34 ADK Power management

V/OS:

• OS and SDK 31615400

V/OS2:

• OS and SDK 31615400

CTLS:

- V/OS
 - o VOS_CTLS-4-01.30.03
 - Subversion A4/A5/A6: With Visa MSD and Interac (suitable for the Americas and Europe)
 - With ExpressPay 3.0 / 3.1 and PayPass 3.0.2 / MCL 3.1.1 Combinations according to release notes
 - o VOS CTLS-4.01.16.13

- Subversion A4: With Visa MSD and Interac (suitable for the Americas and Europe) With ExpressPay 3.0 and PayPass 3.0.2
- Subversion B4: With Visa AP and ePAL (suitable for Asia-Pacific) With ExpressPay 3.0 and PayPass 3.0.2

• V/OS2 - CTLS L1

o ctls-11-full-1.2.52 CTLS level 1 library for Engage

Tools:

- Windows USB driver (for Trident, Engage) 5.0.5.2 Build 8
- Windows USB driver (for PP, Qx, Nurit) 1.0.0.21 Build 2

Dependencies

• ADKTMS 5.0.5.3 or higher is compatible with the VHQ Server 3.27.01.23

VHQ XSD version 04.01.0009 is used in this Agent

Important Notes

• From ADK 4.8.24 onwards if you downgrade to any older ADK 4.8, 4.7 or 4.6 version you will lose any keys on your device.

New Features

New features in ADK 4.8.41:

• UI: Introduction of Text-to-Speech (TTS) engine on V/OS2 and V/OS3 devices with support of various languages.

New features in ADK 4.8.40:

- Battery:
 - Fuel gauge BATLOWEN was set every boot but now only set during calibration.
 - Temperature value known to be invalid was treated as a valid value to compare to potentially new reasonable battery temperature.
 - Removed window where no valid battery capacity % was available during update from old value to new.

New features in ADK 4.8.39:

- SYS: New headset support is implemented on P200/P400/P400 Plus devices. The P/N of cables that support the headset jack:
 - o (1) CBL435-045-03-A CABLE, 5V POWER
 - o (2) CBL435-046-03-A CABLE, 12V POWER
 - o (3) CBL282-006-05-A

add ADK SYS property SYS_PROP_USB_AUDIO_JACK_STATE to get the headset jack connection status.

- EMV: Updated CTLS kernels
- SDI: Increase log level for example on user config package

New features in ADK 4.8.38:

- Battery improvements:
 - Following a suspend phase exceeding 20 minutes, battery capacity can reset to zero as a new value is determined. To prevent unintended application recovery actions, the previous % is used.
 - o Consolidated fuel gauge configuration into one stage.
- EMV:
 - o Added additional contactless kernel versions EP3.0.4, MK3.0.1 for UX700/UX700-A
 - o Added additional contactless kernel versions DK3.0.5, CK1.1.0 for VM1 (VM100 / VP100)
 - Reading xml config files is more robust and deletes corrupt files and returns EMV_ADK_READ_ERROR at init

New features in ADK 4.8.37:

• No new features

New features in ADK 4.8.36:

• No new features

New features in ADK 4.8.35:

• EMV: Added new CTLS kernel versions for UX410 and V210. Please check the EMV documentation for details.

EMV: Allow fetching tag 9F09 even for CTLS specifications, which have not defined it.

New features in ADK 4.8.34:

- Battery: Improve/Refine battery capacity % reporting and removed some redundant charger settings
- Battery related changes:
 - Battery: Charging mode changed to meet specification of power management chip on e235 (applicable only on releases it is supported).
 - o Battery: Improved error debugging when dealing with battery temperature.

New features in ADK 4.8.33:

- DOC: The programmers guide now includes a chapter about how to best make use of random functions
- COM: CCP now provides an additional firmware version to identify the radio related software on the main controller
- SYS: Add four new ADK-SYS properties (dual chip devices only) for Gateway, prefix length, DNS1, DNS2

New features in ADK 4.8.32:

• No new features

Fixed Issues

Fixed Issues in ADK 4.8.41:

- PinPad
 - o Cabling: Fix an issue with ethernet support using orange dongle cables, P400
 - Cabling: Fix connection issue with orange dongle cables, P400
 - CTLS: Fix critical issue (segmentation fault) for processing contactless cards without PPSE

Fixed Issues in ADK 4.8.40:

- All platforms
 - COM: Fixed issue in com control panel (CCP) where Bluetooth power was enabled before the
 password entry screen was displayed. Now Bluetooth power is enabled only after correct password
 is entered.
- Carbon:

• Android communication: Improved communication speed on CM5 caused by ARRS connection attempts, which are not supported on this device and release.

• Portable and Mobile

- PM: Fixed an intermittent issue, which prevented sending of vfisyspm::ENTER_EXTERNAL_POWER event, when plugging and unplugging the power supply.
- COM: Fixed an issue with Bluetooth disconnect during Deep Sleep when base is operating in bridge mode
- o BAT: Solved some rare/corner case where battery percentage is wrongly reported as 0 or invalid.
- COM: Fixed deadlock issue when device is going to suspend, but BT PAN interface is busy with incoming traffic.

PinPad

- o P400 Plus touchscreen: Improved detection and recalibration of large objects on screen
- o P400 Plus touchscreen: Improved detection and recalibration of large objects on screen

• Multi-lane

- o CTLS: Removed debug logging to avoid overrun of system log
- Deployment: Fixing CP application installation issue when deploying with IDS

Fixed Issues in ADK 4.8.39:

- Portable and Mobile
 - o GUI: Video playback is now also possible on e235

Unattended

- o SYS: New UX property determining which of UX100 or UX110 model is connected
- VHQ: Agent will store/save only the Download/Install payloads if they are not processed because of no network. This can be disabled if the device has "Safe Mode" set to 4096. Please make sure "Safe Mode" is set to zero.

Fixed Issues in ADK 4.8.38:

• Portable and Mobile

- Power mgmt: Added a power mode in VOS2, which doesn't turn on the backlight to allow running background tasks. Please check the programmers guide for more details.
- Battery: Fixed an issue with battery fuel gauge recalibration following a depleted battery or battery swap.
- Battery: Fix to battery % being briefly incorrectly reported as 0% after a suspend period longer than 20 minutes.
- CCP: Improvement of user experience. New screen to enable roaming if more than one network has been added.

PinPad

• NFC: Fixed a dependency issue of VAS components

Unattended

- o SYS: Fixed issue with random application start failure after reboot
- SYS: Boot loop on Ux410 fixed
- Multi-lane
 - UI: Zooming disabled on desktop ADK apps on Android devices

Fixed Issues in ADK 4.8.37:

- Portable and Mobile
 - Base Comms application:
 Modified timings, generation of error messages (on errors) and initialization routine to minimize delays when docking/undocking terminal.

Fixed Issues in ADK 4.8.36:

- Portable and Mobile
 - o BAT: Fixed issue with battery not reporting correct percentage on e235
 - VHQ: Fixed Baseupdater install loop issue when installing via VHQ
- PinPad

- NFC: Enabled reading of block 63 on Mifare Classic card.
- COM: Now interface info can be obtained in parallel to network bring up operation, and the info calls will not block until network operation has finished.

Unattended

- EMV: For UX410 transit use EP3.0.6 kernel set with MK3.0.3, VK4.0.1, AK4.0.0, JK1.2.0, DK3.0.5 and CK2.0.0.
- o EMV: Updated list of allowed L2 kernel for use on Ux devices

• Multi-lane

- WiFi: Added COM_PROP_WLAN_LIST to retrieve list of configured SSIDs from wpa_supplicant.
- USB: The porttype was incorrectly defined in the Device Tree for M400. USB1 porttype has been changed from "unassigned" to "miniUSB"

Fixed Issues in ADK 4.8.35:

• All platforms

 NFC/SDK: Fixed an undefined reference to `_NFC_PT_SetBaudRate' in the SDK, when compiling applications.

• All Engage

- EMV: Improved handling of the tag DFA13A of EMV_ADK_FETCHTAGS_GET_DATA. Please check the programmers guide for details.
- NFC: Update Applepay and VWI kernels for compatibility with modified function call names in OpenSSL3
- EMV: Configuration files for terminal and application settings, keys, etc. are now restored in case an application deleted them.

• Portable and Mobile

 COM: Fixed an issue where ADK-COM's autopower feature would power on the hardware module (GSM, Bluetooth, Wifi) even if the associated network interface is disabled by configuration. This doesn't affect the cases where autopower is set to OFF (powering is controlled by user application).

Countertop

• PTR: Fixed issue where printing fails with "Printer voltage error"

Unattended

- PM: Fixed sporadic issue on Ux410 where device is in hibernate and on wakeup doesn't return to Application menu but shows splash screen with s/w versions. This was repeated until power cable was removed.
- o NFC: Extended baud rate support on communication with MIFARE Plus card
- GUI: Added an option for sendkey() to not bypass keymap when using physical function keys. Please check the programmers guide for more details

Fixed Issues in ADK 4.8.34:

- All Engage
 - EMV: Fixed the falllback handling for EMV_CTLS_GetCandidateData() in case IIN(E) is not provided by candidate
- All Trinity
 - SDI: Add check for minPanLength and maxPanLength when loading cardranges.json.
- All NEO and NEO2 based devices
 - SDI: Add check for minPanLength and maxPanLength when loading cardranges.json.
- Portable and Mobile
 - COM/CCP: Improved the behavior of configuration DB updates for CCP and COM. Please check the chapter Example 7: WiFi configuration for roaming in the ADK programmers guide, in component ADK-CCP for details.
 - o COM:
 - Fixed rare cases where COM stack would deadlock during Wifi interface setup Enhanced registration status waiting logic in GSM stack
 - o RADIO: added support for new radio firmware version EC200AAUHAR01A13M16_01.200.01.200
 - PTR: Improve print quality for V210
 - VHQ: Fixed an issue which prevented installation of JSONKeyBlobs provided by the VHQ server.
- PinPad

• COM: Added ability to set user-defined DNS server IP when using PPP with dynamic IP assignment.

• Multi-lane

 MAC: Fix sporadic issue with MAC init that resulted in UI styling errors including very large button icons

Fixed Issues in ADK 4.8.33:

- All platforms
 - o DOC: Fixed issue with VHQ section of Programmers Guide
- All Engage
 - VHQ: Added reporting for AES and 3DES DUKPT online keys to VHQ
 - SYS: ADK SYS now allows to read out the sponsor using the SYS_PROP_TERMINAL_SPONSOR again.
 - VHQ: Agent will send AgentReboot only once and subsequent reboots are considered as SystemReboot
 - VHQ: Fixed issue where Agent not handling SIG TERM signal in all cases.
 - Radio: A problem preventing the use of Restricted SIM Access (STK) on 2G-only devices has been resolved.
 - o SYS: Added an API to read out the version of the touch configuration
 - VHQ: Fixed issue where scheduling an installation at a later time from download wasn't working.
 - RADIO: Two new rows have been added to the "Status monitor" table located in "Sysmode Supervisor Administration Communications GSM" tab.
 The first one shows the name of the currently selected network operator and the second one shows
 the current network registration status. In the case of roaming, the status will be set to "Registered to
 foreign network" or "Registered to home network" otherwise.
 - Bluetooth: To prevent implicit pairing, the retry mechanism for missing keys is now disabled.
- All NEO and NEO2 based devices

o SDI: SDI now allows to encrypt card data also for manual card data entry when using VCL

• Portable and Mobile

- o VHQ: Fixed issue where Agent not handling SIG TERM signal in all cases.
- VOS-RADIO: Modifications have been made in the case of LTE Attach #11, #12, #13, #14, #15, #22, #35, #42 to ensure compliance with the 3GPP standards.
- VOS-BT: Fixed a sporadic issue, where the device had to be restarted after a BSA server disconnect.
- SYS: Updated the version of libssh2.so to 1.10.0
- VOS-RADIO: Modifications have been made in the case of LTE Attach #11, #12, #13, #14, #15, #22, #35, #42 to ensure compliance with the 3GPP standards.
- SYS: Fixed an issue, where the returned display size values for e235 were swapped, which lead to cut off strings in some texts.
- COM: Fixed an issue, which prevented attach/detach notifications for some Engage devices like e280
- PTR: Corrected printer driver issue where it reads an out of range voltage that then caused a printer error message and blocked printing.
- COM: Fixed an issue where the WiFi interface is not disabled when the last saved network is deleted from CCP database.

Countertop

o RADIO: Fixed an issue, which prevented reading of radio capabilities for a BGS2-W radio module.

Unattended

- VHQ: Remove watchdog timer to eliminated reported deadlock situation
- SYS: Clarify use of SYS_PROP_RTC & SYS_PROP_TIME_ISO8601. See Programmers Guide

• Multi-lane

• VHQ: Fixed issue where Agent not handling SIG TERM signal in all cases.

• GUI: The width of scrollbars can now be set in the gui.ini file for applications. Please check the programmers guide GUI section for details about the new width setting.

Fixed Issues in ADK 4.8.32:

- All platforms
 - LOG: Added SDI server logging channel to LCP
 - SDI: updated error code when trying to remove a plugin while plugin directory not exist yet.
- All Engage
 - LOG: Added back the default icons of the log control panel in MAC
 - CCP: Corrected an issue, where a wrong label is shown in com control panel during start of the interface
- Carbon:
 - NFC: Fixed authentication of sector on Mifare Cassic tag using Key Type B.
- Portable and Mobile
 - o LOG: Fixed Log Control Panel UI on e235 devices
 - BAT: Descriptive battery levels (low, critical etc.) now correctly aligned with numerical % ranges. Also capacity reporting improved for short resume periods during repeated suspend-resume cycles.
 - V210: Fixed a sporadic LCD type detection issue.
 - o RADIO: Fixed an issue, where registering with a network fails after performing an operator scan
 - o BAT: Fixed a bug that has prevented to receiving event on low battery on mobile devices.
 - BAT: Descriptive battery levels (low, critical etc.) now correctly aligned with numerical % ranges. Also capacity reporting improved for short resume periods during repeated suspend-resume cycles.
 - Bluetooth: Fixed an intermittent issue, which leads to an error 74, when opening an SPP port on a terminal, which is docked on a base.

COM: The CCP database update mechanism was enhanced by adding a new parameter to control
the WiFi roaming. Previously, if new WiFi configurations where added through this mechanism, the
roaming capability had to be activated manually using the CCP UI.

PinPad

• MAC: Accessing sysmode from MAC by pressing 1+5+9 twice, even if a MAC password is configured, can now be prevented by setting [hotkeys] sysmode_button=n

Countertop

 Radio: Removed PPP related messages in device log. Connection functions are now restricted to the relevant network device only

Unattended

o CTLS/NFC: Fixed an issue where Mifare and CTLS payments only works for one time.

Known Issues, Limitations and Restrictions

Known Issues:

No known issues

Restrictions:

- From ADK 4.8.24 onwards, if you downgrade to any older ADK 4.8, 4.7 or 4.6 version you will lose
 any keys on your device.
- VHQ Agent 2.17.x or above should be used with VHQ server 3.11.27.x or higher.
- VHQ Agent 3.2.5 or above should be used with VHQ server 3.12.02.06 or higher.
- VHQ Agent 3.2.16 or above should be used with VHQ server 3.14.02.16 or higher.
- VHQ Agent 3.4.1 or above should be used with VHQ server 3.19.01.18 or higher.
- VHQ Agent 3.4.2 or above should be used with VHQ server 3.21.0.14 or higher.
- VHO Agent 3.4.3.x or above should be used with VHO server 3.23.01.01 or higher.
- VHQ Agent 5.0.5.x or above should be used with VHQ server 3.27.01.23 or higher. Please
 - Check server version before recommending device software updates (especially on-premise clients).
 - Check version of Agent that will be included in any device software update.
 - Check version of software embedded on any devices before distributing to clients.
- V200t: You must use the latest PVT-3 battery. Low power modes cannot be used on V200t. The unit
 may hang
 - sporadically and needs to be rebooted.
- **Reboot when updating applications**: When updating user package, the device will now always reboot. The only exception from this behavior are user data files.
- "When upgrading to ADK-4.4.17/ADK-4.6.4/ADK-4.7.x/later versions from older versions, it is recommended
 - to go through a complete discharge-charge power cycle atleast once after the SW update. For later updates,

example moving from ADK-4.6.12 to ADK-4.7.6 this step is not required. If battery is removed and re-inserted, it is recommended to go through a complete discharge-charge power cycle atleast once.

Please follow the update procedure above strictly. There are several limitations in older releases regarding the update of units:

- For releases earlier than ADK 4.4.0 and ADK Portable, do not use combined Engage download packages. Device specific download packages must be used for ADK 4.3.x, ADK for Carbon and ADK for M400 and older releases.
- **Engage automated update**: In some cases, the unit may not automatically restart after an install. Please reboot the unit manually in that case.

Appendix:

See Annex