



# MOBILedit Forensics Express

v4.2.1.11207

Test Results for Mobile Device Acquisition Tool

*November 30, 2017*



**Homeland  
Security**

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Science and Technology

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**January 2018**

**Test Results for Mobile Device Acquisition Tool:**  
MOBILedit Forensics Express v4.2.1.11207

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## Introduction

The Computer Forensics Tool Testing (CFTT) program is a joint project of the Department of Homeland Security (DHS), the National Institute of Justice (NIJ), and the National Institute of Standards and Technology Special Program Office (SPO) and Information Technology Laboratory (ITL). CFTT is supported by other organizations, including the Federal Bureau of Investigation, the U.S. Department of Defense Cyber Crime Center, U.S. Internal Revenue Service Criminal Investigation Division Electronic Crimes Program, and the U.S. Department of Homeland Security's Bureau of Immigration and Customs Enforcement, U.S. Customs and Border Protection and U.S. Secret Service. The objective of the CFTT program is to provide measurable assurance to practitioners, researchers, and other applicable users that the tools used in computer forensics investigations provide accurate results. Accomplishing this requires the development of specifications and test methods for computer forensics tools and subsequent testing of specific tools against those specifications.

Test results provide the information necessary for developers to improve tools, users to make informed choices, and the legal community and others to understand the tools' capabilities. The CFTT approach to testing computer forensics tools is based on well-recognized methodologies for conformance and quality testing. Interested parties in the computer forensics community can review and comment on the specifications and test methods posted on the [CFTT Website](#).

This document reports the results from testing Compelson's MOBILedit Forensics Express v4.2.1.11207 across supported mobile devices and associated media e.g., smart phones, tablets and UICCs.

Test results from other tools can be found on the DHS S&T-sponsored digital forensics [web page](#).

## How to Read This Report

This report is divided into four sections. Section 1 identifies and provides a summary of any significant anomalies observed in the test runs. This section is sufficient for most readers to assess the suitability of the tool for the intended use. Section 2 identifies the mobile devices used for testing. Section 3 lists testing environment, the internal memory data objects used to populate the mobile devices. Section 4 provides an overview of the test case results reported by the tool.

# Test Results for Mobile Device Acquisition Tool

Tool Tested: MOBILedit Forensics Express

Software Version: V4.2.1.11207

Supplier: Compelson

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## 1 Results Summary

Compleson's Labs MOBILedit Forensics Express provides examiners with the ability to view, search for or retrieve all data from a mobile device, tablet and associated media i.e., UICC. This data includes call history, phonebook, text messages, multimedia messages, files, calendars, notes, reminders and raw application data. It will also retrieve all phone information such as IMEI, operating systems, firmware including SIM details (IMSI), ICCID and location area information. Except for the following anomalies, the tool acquired all supported data objects completely and accurately for all mobile devices tested.

### ***Personal Information Management (PIM) data:***

- Blank calendar entries (i.e., containing only a date) are not reported. (Devices: *Galaxy S3, Galaxy S5, LG G4, LG G5, Galaxy S6 Edge Plus, Samsung J3, Samsung GS7, Samsung GS7 Edge, HTC 10, Galaxy Note 3, Ellipsis 8, Galaxy Tab S2*)
- Metadata (e.g., URLs) associated with calendar entries are not reported. (Device: *iPhone 6S Plus*)
- Memos are partially reported, long memo entries are truncated. (Device: *Galaxy S3*)
- Notes/memos are not reported. (Devices: *Galaxy S5, LG G4, LG G5, Galaxy S6 Edge Plus, Samsung J3, Google Pixel XL, Samsung GS7, Samsung GS7 Edge, Galaxy Tab-E*)
- Deleted Memos/Notes are reported as active. (Devices: *iPhone 7 Plus, iPad Mini, iPad Air, iPad Pro*)
- Hangouts Dialer Call log data is not reported. (Devices: *Galaxy Tab-E, Galaxy Tab S2*)
- Firechat SMS and MMS data is not reported. (Devices: *Ellipsis 8, Galaxy Tab-E, Galaxy Tab S2*)
- Group SMS messages are redundantly reported. (Devices: *Motorola Droid Turbo 2, Samsung J3, Google Pixel XL, Samsung GS7, Samsung GS7 Edge, Motorola Z Force, HTC 10*);

- All recipients are not reported on outgoing group messages. (Devices: *iPhone 6S Plus, iPhone 7 Plus, iPad Pro*)
- MMS messages (audio, graphic, video) and associated text are not reported. (Device: *iPhone 4*)
- Graphic files associated with MMS messages cannot be opened within the generated report. (Device: *iPhone 7 Plus*)

#### ***Stand-alone Files:***

- Graphic files (i.e., GIF) are not reported. (Device: *iPhone 4*)
- Document files (e.g., .txt, .pdf) are not reported. (Devices: *iPhone 4, iPhone 5S, iPad Mini, iPad Air, iPad Pro*)

#### ***Social media Data:***

- Social media related data (i.e., LinkedIn) is partially reported. (Devices: *Galaxy S3, Galaxy S5*)
- Social media related data (i.e., Twitter) is partially reported. (Devices: *LG G4, LG G5, Galaxy S6 Edge Plus, Samsung J3, Google Pixel XL, Samsung GS7, Samsung GS7 Edge, HTC 10, Ellipsis 8, Galaxy Tab-E, Galaxy Tab S2*)
- Social media related data (i.e., Facebook) is partially reported. (Device: *Galaxy Note 3*)
- Social media related data (i.e., Instagram) is partially reported. (Devices: *Motorola Droid Turbo 2, Galaxy S6 Edge Plus*)
- Social media related data (i.e., Facebook, LinkedIn) is not reported. (Device: *Galaxy S6 Edge Plus*)
- Social media related data (i.e., Facebook, LinkedIn, Instagram) is not reported. (Devices: *LG G4, LG G5, Samsung J3, Google Pixel XL, Samsung GS7, Samsung GS7 Edge, HTC 10, Ellipsis 8, Galaxy Tab-E, Galaxy Tab S2*)
- Social media related data (i.e., Facebook, Twitter, LinkedIn) is not reported. (Device: *Motorola Droid Turbo 2*)
- Social media related data (i.e., Facebook, Twitter, LinkedIn, Instagram) is not reported. (Device: *Motorola Z Force*)
- Social media related data (i.e., Facebook, LinkedIn) is partially reported. (Device: *iPhone 5S*)
- Social media related data (i.e., Facebook, Twitter, Instagram) is partially reported. (Devices: *iPhone 6S Plus, iPhone 7 Plus, iPad Mini, iPad Pro*)
- Social media related data (i.e., Facebook, Twitter) is partially reported. (Device: *iPad Air*)
- Social media related data (i.e., LinkedIn) is not reported. (Device: *iPad Air*)

➤ **Note:** *The acquisition and reporting of social media related data extracted from a mobile device is dependent upon various factors - the state of the device (e.g., jailbroken, rooted), the data extraction method (e.g., logical, physical), the version of the app and how the data is stored.*

***Internet Related Data:***

- Internet related data (i.e., bookmarks, history, email) are not reported. (Devices: *LG G5, Galaxy S6 Edge Plus, Samsung J3, Google Pixel XL, Samsung GS7, Samsung GS7 Edge, Motorola Z Force, HTC 10, Galaxy Tab-E, Galaxy Tab S2*)
- Internet related data (i.e., history, bookmarks) are not reported. (Device: *iPhone 4*)
- Internet related data (i.e., email) are not reported. (Devices: *Galaxy S5, LG G4, Motorola Droid Turbo 2*)

***GPS / Location Related Data:***

- GPS data (e.g., maps, routes, waypoints) are not reported. (Devices: *Motorola Droid Turbo 2, iPhone 7 Plus, iPad Air*)

***UICC Related Data:***

- Service Provider Name (SPN) is not reported. (Media: *UICCs*)

For more test result details see section 4.



## 2 Mobile Devices

The following table lists the mobile devices used for testing MOBILedit Forensics Express v4.2.1.11207.

Make	Model	OS	Firmware	Network
Apple	iPhone 4	iOS v4.3.3 (8J2)	04.10.01	GSM
Apple	iPhone 5S	iOS 7.1 (11D167)	2.18.02	CDMA
Apple	iPhone 6S Plus	iOS 9.2.1 (13C75)	1.23.00	CDMA
Apple	iPhone 7 Plus	iOS 10.2 (14C92)	1.33.00	CDMA
Apple	iPad Mini	iOS 9.2.1 (13B143)	4.32.00	CDMA
Apple	iPad Air	iOS 7.1 (11D167)	2.18.02	CDMA
Apple	iPad Pro	iOS 9.2.1 (13C75)	4.52.00	CDMA
Samsung	Galaxy S3 SGH-1747	Android 4.1.2	1747UCDMG2	GSM
Samsung	Galaxy S5 SM-G900V	Android 4.2.2	G900V.05	CDMA
LG	G4	Android 5.1.1	LMY47D	CDMA
LG	G5	Android 6.0.1	MMB29M	CDMA
Motorola	Droid Turbo2	Android 5.1.1	LCK23.130-23	CDMA
Samsung	Galaxy S6 Edge Plus – SM-G928V	Android 5.1.1	LMY47X.G928VVRU2AOJ2	CDMA
Samsung	J3 – SM-J320V	Android 6.0.1	MMB29M.J320VVRU2AP12	CDMA
Google	Pixel XL	Android 7.1.1	NMF26U	CDMA
Samsung	GS7 – SM-G930V	Android 6.0.1	MMB29M.G930VVRU4AP13	CDMA
Motorola	Z Force XT1650	Android 7.0	NCLS25.86-11-4	CDMA
HTC 10	HTC6545LVW	Android 6.0.1	1.85.605.8.8.0_g CL774095	CDMA
Samsung	GS7 Edge SM-G935V	Android 6.0.1	MMB29M.G935VVRS4APH1	CDMA
Samsung	Galaxy Note3	Android 4.4.2		

Make	Model	OS	Firmware	Network
Ellipsis 8	QTAQZ3	Android 4.4.2	KOT49H	CDMA
Samsung	Galaxy Tab-E	Android 5.1.1	LMY47X.T567VVRU1AOH1	CDMA
Samsung	Galaxy Tab S2	Android 5.1.1	LMY47X.T817BVRU2AOJ2	CDMA

Table 1: Mobile Devices

### 3 Testing Environment

The tests were run in the NIST CFTT lab. This section describes the selected test execution environment, and the data objects populated onto the internal memory of mobile devices.

#### 3.1 Execution Environment

MOBILedit Forensics Express v4.2.1.11207 was installed on Windows 7 v6.1.7601.

#### 3.2 Internal Memory Data Objects

MOBILedit Forensics Express v4.2.1.11207 was measured by analyzing acquired data from the internal memory of pre-populated mobile devices. Table 2 defines the data objects and elements used for populating mobile devices provided the mobile device supports the data element.

Data Objects	Data Elements
Address Book Entries	<i>Regular Length</i>
	<i>Maximum Length</i>
	<i>Special Character</i>
	<i>Blank Name</i>
	<i>Regular Length, email</i>
	<i>Regular Length, graphic</i>
	<i>Regular Length, Address</i>
	<i>Deleted Entry</i>
	<i>Non-Latin Entry</i>
	<i>Contact Groups</i>
PIM Data: Datebook/Calendar; Memos	<i>Regular Length</i>
	<i>Maximum Length</i>
	<i>Deleted Entry</i>
	<i>Special Character</i>
	<i>Blank Entry</i>
Call Logs	<i>Incoming</i>
	<i>Outgoing</i>
	<i>Missed</i>
	<i>Incoming – Deleted</i>
	<i>Outgoing – Deleted</i>

<b>Data Objects</b>	<b>Data Elements</b>
Call Logs	<i>Missed - Deleted</i>
Text Messages	<i>Incoming SMS – Read</i>
	<i>Incoming SMS – Unread</i>
	<i>Outgoing SMS</i>
	<i>Incoming EMS – Read</i>
	<i>Incoming EMS – Unread</i>
	<i>Outgoing EMS</i>
	<i>Incoming SMS – Deleted</i>
	<i>Outgoing SMS – Deleted</i>
	<i>Incoming EMS – Deleted</i>
	<i>Outgoing EMS – Deleted</i>
MMS Messages	<i>Non-Latin SMS/EMS</i>
	<i>Incoming Audio</i>
	<i>Incoming Graphic</i>
	<i>Incoming Video</i>
	<i>Outgoing Audio</i>
	<i>Outgoing Graphic</i>
Application Data	<i>Outgoing Video</i>
	<i>Device Specific App Data</i>
Stand-alone data files	<i>Audio</i>
	<i>Graphic</i>
	<i>Video</i>
	<i>Audio – Deleted</i>
	<i>Graphic - Deleted</i>
	<i>Video - Deleted</i>
Internet Data	<i>Visited Sites</i>
	<i>Bookmarks</i>
	<i>E-mail</i>
Location Data	<i>GPS Coordinates</i>
	<i>Geo-tagged Data</i>
Social Media Data	<i>Facebook</i>
	<i>Twitter</i>
	<i>LinkedIn</i>
	<i>Instagram</i>

**Table 2: Internal Memory Data Objects**

## 4 Test Results

This section provides the test cases results reported by the tool. Sections 4.1 – 4.3 identify the mobile device operating system type, media (e.g., Android, iOS, UICCs) and the make and model of mobile devices used for testing MOBILedit Forensics Express v4.2.1.11207.

The *Test Cases* column (internal memory acquisition) in sections 4.1 - 4.3 are comprised of two sub-columns that define a particular test category and individual sub-categories that are verified when acquiring the internal memory for supported mobile devices and UICCs within each test case. Each individual sub-category row results for each mobile device/UICC tested. The results are as follows:

*As Expected:* the mobile forensic application returned expected test results – the tool acquired and reported data from the mobile device/UICC successfully.

*Partial:* the mobile forensic application returned some of data from the mobile device/UICC.

*Not As Expected:* the mobile forensic application failed to return expected test results – the tool did not acquire or report supported data from the mobile device/UICC successfully.

*NA:* Not Applicable – the mobile forensic application is unable to perform the test or the tool does not provide support for the acquisition for a particular data element.

## **4.1 Android Mobile Devices**

The internal memory contents for Android devices were acquired and analyzed with MOBILedit Forensics Express v4.2.1.11207.

All test cases pertaining to the acquisition of supported Android devices were successful with the exception of the following.

- Blank calendar entries (i.e., not containing a title/body) are not reported for the Galaxy S3, Galaxy S5, LG G4, LG G5, Galaxy S6 Edge Plus, Samsung J3, Samsung GS7, Samsung GS7 Edge, HTC 10, Galaxy Note 3, Ellipsis 8 and the Galaxy Tab S2.
- Memos/Notes are not reported for the Galaxy S5, LG G4, LG G5, Galaxy S6 Edge Plus, Samsung J3, Google Pixel XL, Samsung GS7, Samsung GS7 Edge and the Galaxy Tab-E.
- Memos/Notes are not normalized beneath the “Notes” section. Partial memo related data is found within the file system data for the Galaxy S3.
- Call log data is not reported via Hangouts Dialer for the Samsung Galaxy Tab-E and the Galaxy Tab S2.
- SMS and MMS messages are not reported via FireChat for the Ellipsis 8, Galaxy Tab-E and the Galaxy Tab S2.
- Group SMS messages are redundantly reported – where one message contains blank content with all of the recipients listed individually for the Motorola Droid Turbo 2, Samsung J3, Google Pixel XL, Samsung GS7, Samsung GS7 Edge, Motorola Z Force and the HTC 10.
- Social media related data (i.e., LinkedIn) is partially reported (e.g., account related data) for the Galaxy S3 and the Galaxy S5.
- Social media related data (i.e., Twitter) is partially reported (e.g., pictures) for the LG G4, LG G5, Galaxy S6 Edge Plus, Samsung J3, Google Pixel XL, Samsung GS7, Samsung GS7 Edge, HTC 10, Ellipsis 8, Galaxy Tab-E and the Galaxy Tab S2.
- Social media related data (i.e., Facebook) is partially reported (e.g., account related data) for the Galaxy Note 3.
- Social media related data (i.e., Instagram) is partially reported (e.g., account related data) for the Motorola Droid Turbo 2 and the Galaxy S6 Edge Plus.
- Social media related data (i.e., Facebook, LinkedIn) is not reported for the Galaxy S6 Edge Plus.
- Social media related data (i.e., Facebook, LinkedIn, Instagram) is not reported for the LG G4, LG G5, Samsung J3, Google Pixel XL, Samsung GS7, Samsung GS7 Edge, HTC 10, Ellipsis 8, Galaxy Tab-E and the Galaxy Tab S2.
- Social media related data (i.e., Facebook, Twitter, LinkedIn) is not reported for the Motorola Droid Turbo 2.
- Social media related data (i.e., Facebook, Twitter, LinkedIn, Instagram) is not reported for the Motorola Z Force.
- Internet related data (i.e., email) is not reported for the Galaxy S5, LG G4 and the Motorola Droid Turbo 2.
- Internet related data (i.e., email, history, bookmarks) is not reported for the LG G5, Galaxy S6 Edge Plus, Samsung J3, Google Pixel XL, Samsung GS7,

Samsung GS7 Edge, Motorola Z Force, HTC 10, Galaxy Tab-E and the Galaxy Tab S2.

- GPS related data (e.g., maps, routes, waypoints) is not reported for the Motorola Droid Turbo 2

See Table 3a, 3b below for more details.

MOBILedit Forensics Express v4.2.1.11207									
Test Cases – Internal Memory Acquisition		Mobile Device Platform: Android							
		Galaxy S3	Galaxy S5	LG G4	LG G5	Motorola Droid Turbo 2	Galaxy S6 Edge Plus	Samsung J3	Google Pixel XL
Acquisition	Acquire All	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Disrupted	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Reporting	Preview-Pane	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Generated Reports	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Equipment/ User Data	IMEI	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	MEID/ESN	NA	NA	NA	NA	NA	NA	NA	NA
	MSISDN	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
PIM Data	Contacts	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Calendar	Partial	Partial	Partial	Partial	As Expected	Partial	Partial	As Expected
	Memos/ Notes	Partial	Not As Expected	Not As Expected	Not As Expected	As Expected	Not As Expected	Not As Expected	Not As Expected
Call Logs	Incoming	As Expected	Not As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Outgoing	As Expected	Not As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Missed	As Expected	Not As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
SMS Messages	Incoming	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Outgoing	As Expected	As Expected	As Expected	As Expected	Partial	As Expected	Partial	Partial
MMS Messages	Graphic	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Audio	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Video	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected

# MOBILedit Forensics Express v4.2.1.11207

MOBILedit Forensics Express v4.2.1.11207									
Test Cases – Internal Memory Acquisition		Mobile Device Platform: Android							
		Galaxy S3	Galaxy S5	LG G4	LG G5	Motorola Droid Turbo 2	Galaxy S6 Edge Plus	Samsung J3	Google Pixel XL
Stand-alone Files	Graphic	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Audio	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Video	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Application Data	Documents (txt, pdf files)	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Social Media Data	Facebook	As Expected	As Expected	Not As Expected	Not As Expected	Not As Expected	Not As Expected	Not As Expected	Not As Expected
	Twitter	As Expected	As Expected	Partial	Partial	Not As Expected	Partial	Partial	Partial
	LinkedIn	Partial	Partial	Not As Expected	Not As Expected	Not As Expected	Not As Expected	Not As Expected	Not As Expected
	Instagram	NA	NA	Not As Expected	Not As Expected	Partial	Partial	Not As Expected	Not As Expected
Internet Data	Bookmarks	As Expected	As Expected	As Expected	Not As Expected	As Expected	Not As Expected	Not As Expected	Not As Expected
	History	As Expected	As Expected	As Expected	Not As Expected	As Expected	Not As Expected	Not As Expected	Not As Expected
	Email	As Expected	Not As Expected	Not As Expected	Not As Expected	Not As Expected	Not As Expected	Not As Expected	Not As Expected
GPS Data	Coordinates /Geo-tagged	As Expected	As Expected	As Expected	As Expected	Not As Expected	As Expected	As Expected	As Expected
Non-Latin Character	Reported in native format	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Hashing	Case File/ Individual Files	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Case File Data Protection	Modify Case Data	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected

Table 3a: Android Mobile Devices

MOBILedit Forensics v9.1.0.22420								
Test Cases – Internal Memory Acquisition		Mobile Device Platform: Android						
		Samsung GS7/GS7 Edge	Motorol Z Force	HTC 10	Galaxy Note3	Ellipsis 8	Galaxy Tab-E	Galaxy Tab S2
Acquisition	Acquire All	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Disrupted	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Reporting	Preview-Pane	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Generated Reports	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Equipment/ User Data	IMEI	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	MEID/ESN	NA	NA	NA	NA	NA	NA	NA
	MSISDN	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
PIM Data	Contacts	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Calendar	Partial	As Expected	Partial	Partial	Partial	As Expected	Partial
	Memos/ Notes	Not As Expected	As Expected	As Expected	As Expected	As Expected	Not As Expected	As Expected
Call Logs	Incoming	As Expected	As Expected	As Expected	As Expected	NA	Not As Expected	Not As Expected
	Outgoing	As Expected	As Expected	As Expected	As Expected	NA	Not As Expected	Not As Expected
	Missed	As Expected	As Expected	As Expected	As Expected	NA	Not As Expected	Not As Expected
SMS Messages	Incoming	As Expected	As Expected	As Expected	As Expected	Not As Expected	Not As Expected	Not As Expected
	Outgoing	Partial	Partial	Partial	As Expected	Not As Expected	Not As Expected	Not As Expected
MMS Messages	Graphic	As Expected	As Expected	As Expected	As Expected	Not As Expected	Not As Expected	Not As Expected
	Audio	As Expected	As Expected	As Expected	As Expected	Not As Expected	Not As Expected	Not As Expected
	Video	As Expected	As Expected	As Expected	As Expected	Not As Expected	Not As Expected	Not As Expected
Stand-alone Files	Graphic	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Audio	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Video	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Application Data	Documents (txt, pdf files)	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected



MOBILedit Forensics v9.1.0.22420								
Test Cases – Internal Memory Acquisition		Mobile Device Platform: Android						
		Samsung GS7/GS7 Edge	Motorol Z Force	HTC 10	Galaxy Note3	Ellipsis 8	Galaxy Tab-E	Galaxy Tab S2
Social Media Data	Facebook	Not As Expected	Not As Expected	Not As Expected	Partial	Not As Expected	Not As Expected	Not As Expected
	Twitter	Partial	Not As Expected	Partial	As Expected	Partial	Partial	Partial
	LinkedIn	Not As Expected	Not As Expected	Not As Expected	As Expected	Not As Expected	Not As Expected	Not As Expected
	Instagram	Not As Expected	Not As Expected	Not As Expected	NA	Not As Expected	Not As Expected	Not As Expected
Internet Data	Bookmarks	Not As Expected	Not As Expected	Not As Expected	As Expected	As Expected	Not As Expected	Not As Expected
	History	Not As Expected	Not As Expected	Not As Expected	As Expected	As Expected	Not As Expected	Not As Expected
	Email	Not As Expected	Not As Expected	Not As Expected	As Expected	As Expected	Not As Expected	Not As Expected
GPS Data	Coordinate s/Geo-tagged	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Non-Latin Character	Reported in native format	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Hashing	Case File/ Individual Files	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Case File Data Protection	Modify Case Data	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected

Table 3b: Android Devices

## 4.2 iOS Mobile Devices

The internal memory contents for iOS devices were acquired and analyzed with MOBILedit Forensics Express v4.2.1.11207.

All test cases pertaining to the acquisition of supported iOS devices were successful with the exception of the following across all iOS devices.

- Metadata (e.g., URLs) associated with calendar entries are not reported for the iPhone 6S Plus.
- Deleted Memos/Notes are reported as active for the iPhone 7 Plus, iPad Mini, iPad Air and the iPad Pro.
- All recipients are not reported on outgoing group messages for the iPhone 6S Plus, iPhone 7 Plus and the iPad Pro.
- MMS messages (audio, graphic, video) and associated text are not reported. Attachments may be found beneath the “extra filesystem” for the iPhone 4.
- Graphic files associated with MMS messages cannot be opened within the generated report for the iPhone 7 Plus. The files must be exported.
- Graphic files (i.e., GIF) are not reported for the iPhone 4.
- Document files (e.g., .txt, .pdf) are not reported for the iPhone 4, iPhone 5S, iPad Mini, iPad Air and the iPad Pro.
- Social media related data (i.e., Facebook, LinkedIn) is partially reported (account related data) for the iPhone 5S.
- Social media related data (i.e., Facebook, Twitter, Instagram) is partially reported (account related data) for the iPhone 6S Plus, iPhone 7 Plus, iPad Mini and the iPad Pro.
- Social media related data (i.e., Facebook, Twitter) is partially reported (account related data) for the iPad Air.
- Social media related data (i.e., LinkedIn) is not reported for the iPad Air.
- Internet related data (i.e., history, bookmarks) is not reported for the iPhone 4.
- GPS related data (e.g., maps, routes, waypoints) is not reported for the iPhone 7 Plus and the iPad Air.

See Table 4 below for more details.

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Test Cases – Internal Memory Acquisition		Mobile Device Platform: iOS						
		iPhone 4	iPhone 5S	iPhone 6S Plus	iPhone 7 Plus	iPad Mini	iPad Air	iPad Pro
Acquisition	Acquire All	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Disrupted	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Reporting	Preview-Pane	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Generated Reports	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Equipment/ User Data	IMEI	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	MEID/ESN	NA	NA	NA	NA	NA	NA	NA
	MSISDN	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
PIM Data	Contacts	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Calendar	As Expected	As Expected	Partial	As Expected	As Expected	As Expected	As Expected
	Memos/Notes	As Expected	As Expected	As Expected	Partial	Partial	Partial	Partial
Call Logs	Incoming	As Expected	As Expected	As Expected	As Expected	NA	NA	NA
	Outgoing	As Expected	As Expected	As Expected	As Expected	NA	NA	NA
	Missed	As Expected	As Expected	As Expected	As Expected	NA	NA	NA
SMS Messages	Incoming	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Outgoing	As Expected	As Expected	Partial	Partial	As Expected	As Expected	Partial
MMS Messages	Graphic	Not As Expected	As Expected	As Expected	Partial	As Expected	As Expected	As Expected
	Audio	Not As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Video	Not As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Stand-alone Files	Graphic	Partial	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Audio	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Video	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Application Data	Documents (txt, pdf files)	Not As Expected	Not As Expected	As Expected	As Expected	Not As Expected	Not As Expected	Not As Expected

MOBILedit Forensics Express v4.2.1.11207								
Test Cases – Internal Memory Acquisition		Mobile Device Platform: iOS						
		iPhone 4	iPhone 5S	iPhone 6S Plus	iPhone 7 Plus	iPad Mini	iPad Air	iPad Pro
Social Media Data	Facebook	NA	Partial	Partial	Partial	Partial	Partial	Partial
	Twitter	NA	As Expected	Partial	Partial	Partial	Partial	Partial
	LinkedIn	NA	Partial	As Expected	As Expected	As Expected	Not As Expected	As Expected
	Instagram	NA	NA	Partial	Partial	Partial	NA	Partial
Internet Data	Bookmarks	Not As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	History	Not As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
	Email	NA	NA	NA	NA	NA	NA	NA
GPS Data	Coordinates/Geo-tagged	As Expected	As Expected	As Expected	Not As Expected	As Expected	Not As Expected	As Expected
Non-Latin Character	Reported in native format	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Hashing	Case File/Individual Files	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected
Case File Data Protection	Modify Case Data	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected	As Expected

Table 4: iOS Mobile Devices

### 4.3 Universal Integrated Circuit Cards (UICCs)

The internal memory contents for Universal Integrated Circuit Cards (UICCs) were acquired and analyzed with MOBILedit Forensics Express v4.2.1.11207.

All test cases pertaining to the acquisition of supported devices were successful with the exception of the following across all devices.

- SPN data is not reported.

See Table 5 below for more details.

MOBILedit Forensics Express v4.2.1.11207		
Test Cases – UICC Acquisition		Universal Integrated Circuit Card
Connectivity	Non Disrupted	As Expected
	Disrupted	As Expected
Equipment/ User Data	Service Provider Name (SPN)	Not As Expected
	ICCID	As Expected
	IMSI	As Expected
	MSISDN	As Expected
PIM Data	Abbreviated Dialing Numbers (ADNs)	As Expected
	Last Numbers Dialed (LNDs)	As Expected
	SMS Messages	As Expected
	EMS Messages	As Expected
Location Related Data	LOCi	As Expected
	GPRSLOCi	As Expected
Acquisition	Acquire All	As Expected
	Selected All	NA
	Select Individual	NA
Case File Data Protection	Modify Case Data	As Expected
Password Protected SIM Acquire	Acquisition of Protected SIM	As Expected
PIN/PUK Attempts	PIN attempts reported	As Expected
	PUK attempts reported	As Expected
Non-ASCII Character	Non-ASCII characters	As Expected

MOBILedit Forensics Express v4.2.1.11207		
Test Cases – UICC Acquisition		<i>Universal Integrated Circuit Card</i>
Hashing	Hashes reported for acquired data objects	<i>As Expected</i>

**Table 5: Universal Integrated Circuit Cards**