Test Results for Mobile Device Acquisition Tool: Cellebrite Inspector v10.5

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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 Web site (http://www.cftt.nist.gov/).

This document reports the results from testing Cellebrite Inspector v10.5 across supported mobile devices.

Test results from other tools can be found on the DHS Science & Technology sponsored digital forensics web page, http://www.dhs.gov/science-and-technology/nist-cftt-reports.

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: Inspector

Software Version: v10.5

Supplier: Cellebrite, Inc.

Address: 7 Campus Drive, Suite 210, Parsippany, NJ 07054

Fax: (415) 361-4077

WWW: cellebrite.com

1 Results Summary

Cellebrite's Inspector v10.5 was tested for its ability to acquire active data from the internal memory of supported mobile devices.

The data reported for the devices below varies based upon the data extraction technique supported. For instance, a physical and/or file system extraction will provide the user with more data than a logical extraction. Each supported data extraction technique was performed. 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:

Calender data is not reported. (Devices: Galaxy Note 10, Galaxy S10, Galaxy Note 8, Galaxy S9, Huawei P20 Pro, LG G6, LG V30, Motorola Droid Turbo 2, Google Pixel 2, HTC U11)

MMS Messages:

MMS text, attachments and messages with multiple contacts are not reported. (Device: *HTC U11*)

Stand-alone files:

- Audio files are not reported. (Devices: Galaxy Note 10, Galaxy S10, Galaxy Note 8, Galaxy S9, Huawei P20 Pro, LG G6, LG V30, Motorola Droid Turbo 2, Google Pixel 2, HTC U11, iPhone 7, iPhone 8, iPhone X, iPhone XR, iPhone SE, iPhone 11)
- Document files are not reported. (Devices: Galaxy Note 10, Galaxy S10, Galaxy Note 8, Galaxy S9, Huawei P20 Pro, LG G6, LG V30, Motorola Droid Turbo 2, Google Pixel 2, HTC U11, iPhone 7, iPhone 8, iPhone X, iPhone XR, iPhone SE, iPhone 11)

Social media Data:

Social media related data (i.e., WhatsApp) is not reported. (Devices: *Galaxy Note 10, Galaxy S10, Galaxy Note 8, Galaxy S9, Huawei P20 Pro, LG V30, Google Pixel 2*)

Internet Data:

Internet data (browser history, bookmarks) are not reported. (Devices: Galaxy Note 10, Galaxy S10, Galaxy Note 8, Galaxy S9, Huawei P20 Pro, LG G6, LG V30, Google Pixel 2, HTC U11)

GPS Location Data:

GPS related data (coordinates, locations, geotagged pictures/videos) are not reported. (Devices: *Galaxy Note 10, Galaxy S10, Galaxy Note 8, Galaxy S9, Huawei P20 Pro, LG G6, LG V30, Motorola Droid Turbo 2, Google Pixel 2*)

NOTE:

- Audio, Document files and Calendar entries can be manually found for the Galaxy Note 10, Galaxy S10, Galaxy Note 8, Galaxy S9, Huawei P20 Pro, LG G6, LG V30, Motorola Droid Turbo 2, Google Pixel 2 and HTC U11.
- Audio and Document files can be manually found for the iPhone 8, iPhone X, iPhone XR, iPhone SE and iPhone 11.

For more test result details see section 4.

2 Mobile Devices

The following table lists the mobile devices used for testing Inspector v10.5.

| Make | Model | OS | Firmware | Network |
|-------------------|----------------|------------------------|--------------------------|---------|
| Apple iPhone | 7 | iOS 10.2 (14C92) | 1.33.00 | CDMA |
| Apple iPhone | 8 | iOS 11.3.1 (15E302) | 1.89.00 | CDMA |
| Apple iPhone | X | iOS 11.3.1 (15E302) | 1.89.00 | CDMA |
| Apple iPhone | XR | iOS 15.1 NQCK2LL/A | 7.02.00 | CDMA |
| Apple iPhone | SE | iOS 15.1 MX9N2LL/A | 1.06.00 | CDMA |
| Apple iPhone 11 | 11 | iOS 15.1 (15E302) | 3.0.00 | CDMA |
| Samsung | Galaxy Note 10 | Android 9 | SM-N97OU1 | CDMA |
| Samsung Galaxy | S10 | Android 9 | SM-G973U1 | CDMA |
| Samsung | Galaxy Note 8 | Android 7.1.1 | NMF26XN950 U1UEU1AQ1f | CDMA |
| Samsung Galaxy | S9 | Android 8.0.0 | G960U1UEU1 ARB7 | CDMA |
| Huawei | P20 Pro | Android 8.1.0 | CLTL2981010 6 (C636) | CDMA |
| LG | G6 | Android 7.0 | US99715a | CDMA |
| LG | V30 | Android 8.0.0 | OPR11706230 26 | CDMA |
| Motorola Droid | Turbo2 | Android 5.1.1 | LCK23.130-23 | CDMA |
| Google | Pixel 2 | Android 8.1.0 | OPM171019.0 29 | CDMA |
| HTC U11 | U11 | Android 7.1.1 | 12861730 | 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

Cellebrite's Inspector v10.5 was installed on Windows 10 Pro version 10.0.19042.1586.

3.2 Internal Memory Data Objects

Cellebrite's Inspector v10.5 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 | Regular Length Maximum Length Special Character Blank Name Regular Length, email Regular Length, graphic Regular Length, Address Deleted Entry Non-Latin Entry Contact Groups |
| PIM Data: Datebook/Calendar; Memos | Regular Length Maximum Length Deleted Entry Special Character Blank Entry |
| Call Logs | Incoming Outgoing Missed Incoming – Deleted Outgoing – Deleted Missed - Deleted |
| Text Messages | Incoming SMS – Read Incoming SMS – Unread Outgoing SMS Incoming EMS – Read Incoming EMS – Unread Outgoing EMS Incoming SMS – Deleted Outgoing SMS – Deleted Incoming EMS – Deleted Outgoing EMS – Deleted Outgoing EMS – Deleted Non-Latin SMS/EMS |
| MMS Messages | Incoming Audio Incoming Graphic Incoming Video Outgoing Audio Outgoing Graphic Outgoing Video |
| Application Data | Device Specific App Data |

| Data Objects | Data Elements |
|------------------------|--|
| Stand-alone data files | Audio Graphic Video Audio – Deleted Graphic - Deleted Video - Deleted |
| Internet Data | Visited Sites Bookmarks E-mail |
| Location Data | GPS Coordinates Geo-tagged Data |
| Social Media Data | Facebook Twitter LinkedIn Instagram Pinterest SnapChat WhatsApp |

Table 2: Internal Memory Data Objects

4 Test Results

This section provides the test cases results reported by the tool. Sections 4.1 - 4.2 identify the mobile device operating system type, media (e.g., Android, iOS) and the make and model of mobile devices used for testing Cellebrite's Inspector v10.5.

The *Test Cases* column (internal memory acquisition) in sections 4.1 - 4.2 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 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 Inspector v10.5. All test cases pertaining to the acquisition of supported Android devices were successful with the exception of the following across all Android devices.

- Calendar events / entries are not reported for the Galaxy Note 10, Galaxy S10, Galaxy Note 8, Galaxy S9, Huawei P20 Pro, LG G6, LG V30, Motorola Droid Turbo 2, Google Pixel 2 and HTC U11.
- MMS messages and messages addressed to multiple contacts are not reported for the HTC U11.
- Audio files are not reported for the Galaxy Note 10, Galaxy S10, Galaxy Note 8, Galaxy S9, Huawei P20 Pro, LG G6, LG V30, Motorola Droid Turbo 2, Google Pixel 2 and HTC U11.
- Document (pdf) files are not reported for the Galaxy Note 10, Galaxy S10, Galaxy Note 8, Galaxy S9, Huawei P20 Pro, LG G6, LG V30, Motorola Droid Turbo 2, Google Pixel 2 and HTC U11.
- Social media related data (i.e., WhatsApp) is not reported for the Galaxy Note 10, Galaxy S10, Galaxy Note 8, Galaxy S9, Huawei P20 Pro, LG V30, and Google Pixel 2.
- Internet data (browser history, bookmarks) are not reported for the Galaxy Note 10, Galaxy S10, Galaxy Note 8, Galaxy S9, Huawei P20 Pro, LG G6, LG V30, Google Pixel 2 and HTC U11.
- GPS related data (coordinates, locations, geotagged pictures/videos) are not reported for the Galaxy Note 10, Galaxy S10, Galaxy Note 8, Galaxy S9, Huawei P20 Pro, LG G6, LG V30, Motorola Droid Turbo 2 and Google Pixel 2.

NOTE:

Audio, Document files and Calendar entries can be manually found for the Galaxy Note 10, Galaxy S10, Galaxy Note 8, Galaxy S9, Huawei P20 Pro, LG G6, LG V30, Motorola Droid Turbo 2, Google Pixel 2 and HTC U11.

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

Internal Memory Acquisition Cellebrite Inspector v10.5

Mobile Device Platform: Android

| | | | 0.100 - 111 | gorm. Anarola | | | |
|--|-------------------|------------|------------------|---------------|-------------------|----------|----------|
| Test Cases: | Galaxy Note 10 | Galaxy S10 | Galaxy Note 8 | Galaxy S9 | Huawei P20 Pro | 95 9T | LG V30 |
| Acquisition: Acquire All | As | As | As | As | As | As | As |
| | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Acquisition: Disrupted | As | As | As | As | As | As | As |
| | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Reporting: | As | As | As | As | As | As | As |
| Preview-Pane | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Reporting: Generated Reports | As | As | As | As | As | As | As |
| | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Equipment/User Data: IMEI/MEID/ESN | As | As | As | As | As | As | As |
| | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Equipment/User Data: MSISDN | As | As | As | As | As | As | As |
| | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| PIM Data: | As | As | As | As | As | As | As |
| Contacts | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| PIM Data: | Not As | Not As | Not As | Not As | Not As | Not As | Not As |
| Calendar | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| PIM Data: Memos/Notes | NA | NA | NA | NA | NA | NA | NA |
| Call Logs: | As | As | As | As | As | As | As |
| Incoming | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Call Logs: | As | As | As | As | As | As | As |
| Outgoing | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Call Logs: | As | As | As | As | As | As | As |
| Missed | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| SMS Messages: | As | As | As | As | As | As | As |
| Incoming | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| SMS Messages: | As | As | As | As | As | As | As |
| Outgoing | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| MMS Messages: | As | As | As | As | As | As | As |
| Graphic | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| MMS Messages: | As | As | As | As | As | As | As |
| | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| MMS Messages: | As | As | As | As | As | As | As |
| Video | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Stand-alone Files: | As | As | As | As | As | As | As |
| Graphic | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Stand-alone Files: Audio | Not As | Not As | Not As | Not As | Not As | Not As | Not As |
| | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Stand-alone Files: | As | As | As | As | As | As | As |
| Video | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Application Data: Documents (txt, pdf files) | Not As | Not As | Not As | Not As | Not As | Not As | Not As |
| | Expected | Expected | Expected | Expected | Expected | Expected | Expected |

| Test Cases: | Galaxy Note 10 | Galaxy S10 | Galaxy Note 8 | Galaxy S9 | Huawei P20 Pro | 95 9T | LG V30 |
|---------------------------------|-------------------|------------|------------------|-----------|-------------------|----------|----------|
| Social Media Data: Facebook | NA | NA | NA | NA | NA | NA | NA |
| Social Media Data: Twitter | NA | NA | NA | NA | NA | NA | NA |
| Social Media Data: LinkedIn | NA | NA | NA | NA | NA | NA | NA |
| Social Media Data: Instagram | NA | NA | NA | NA | NA | NA | NA |
| Social Media Data: Pinterest | NA | NA | NA | NA | NA | NA | NA |
| Social Media Data: SnapChat | NA | NA | NA | NA | NA | NA | NA |
| Social Media Data: | Not As | Not As | Not As | Not As | Not As | NA | Not As |
| WhatsApp | Expected | Expected | Expected | Expected | Expected | | Expected |
| Internet Data: | Not As | Not As | Not As | Not As | Not As | Not As | Not As |
| Bookmarks | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Internet Data: | Not As | Not As | Not As | Not As | Not As | Not As | Not As |
| History | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Internet Data: Email | NA | NA | NA | NA | NA | NA | NA |
| GPS Data: | Not As | Not As | Not As | Not As | Not As | Not As | Not As |
| Coordinates/Geo-tagged | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Non-Latin Character: | As | As | As | As | As | As | As |
| Reported in native format | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Hashing: | As | As | As | As | As | As | As |
| Case File/ Individual Files | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| Case File Data Protection: | As | As | As | As | As | As | As |
| Modify Case Data | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| SQLite Data: | As | As | As | As | As | As | As |
| Report Active Data | Expected | Expected | Expected | Expected | Expected | Expected | Expected |
| SQLite Data: | As | As | As | As | As | As | As |
| Run SQLite Commands | Expected | Expected | Expected | Expected | Expected | Expected | Expected |

Table 3a: Android Devices

Internal Memory Acquisition Cellebrite Inspector v10.5

Mobile Device Platform: Android

| Moone Be | vice Piaijorm: Anaroia | | | | |
|------------------------------------|------------------------------|--------------------|--------------------|--|--|
| Test Cases: | Motorola Droid Turbo 2 | Google Pixel 2 | HTC U11 | | |
| Acquisition: Acquire All | As Expected | As Expected | As Expected | | |
| Acquisition: | As | As | As | | |
| Disrupted | Expected | Expected | Expected | | |
| Reporting: | As | As | As | | |
| Preview-Pane | Expected | Expected | Expected | | |
| Reporting: Generated Reports | As Expected | As Expected | As Expected | | |
| • | As | As | As | | |
| Equipment/User Data: IMEI/MEID/ESN | Expected | Expected | Expected | | |
| Equipment/User Data: | As | As | As | | |
| MSISDN | Expected | Expected | Expected | | |
| PIM Data: | As | As | As | | |
| Contacts | Expected | Expected | Expected | | |
| PIM Data: | Not As | Not As | Not As | | |
| Calendar | Expected | Expected | Expected | | |
| PIM Data: Memos/Notes | NA | NA | NA | | |
| Call Logs: | As | As | As | | |
| Incoming | Expected | Expected | Expected | | |
| Call Logs: | As | As | As | | |
| Outgoing | Expected | Expected | Expected | | |
| Call Logs: | As | As | As | | |
| Missed | Expected | Expected | Expected | | |
| SMS Messages: | As | As | As | | |
| Incoming | Expected | Expected | Expected | | |
| SMS Messages: Outgoing | As Expected | As Expected | As Expected | | |
| MMS Messages: | As | As | Not As | | |
| Graphic | Expected | Expected | Expected | | |
| MMS Messages: | As | As | Not As | | |
| Audio | Expected | Expected | Expected | | |
| MMS Messages: | As | As | Not As | | |
| Video | Expected | Expected | Expected | | |
| Stand-alone Files: | As | As | As | | |
| Graphic | Expected | Expected | Expected | | |
| Stand-alone Files: | Not As | Not As | Not As | | |
| Audio | Expected | Expected | Expected | | |
| Stand-alone Files: | As | As | As | | |
| Video | Expected | Expected | Expected | | |
| Application Data: | Not As Expected | Not As Expected | Not As Expected | | |
| Documents (txt, pdf files) | престеп | Блрестей | пурестеп | | |

| Test Cases: | Motorola Droid Turbo 2 | Google Pixel 2 | HTC U11 |
|---|------------------------------|--------------------|--------------------|
| Social Media Data: Facebook | NA | NA | NA |
| Social Media Data: Twitter | NA | NA | NA |
| Social Media Data: LinkedIn | NA | NA | NA |
| Social Media Data: Instagram | NA | NA | NA |
| Social Media Data: Pinterest | NA | NA | NA |
| Social Media Data: SnapChat | NA | NA | NA |
| Social Media Data: WhatsApp | NA | Not As Expected | NA |
| Internet Data: Bookmarks | As Expected | Not As Expected | Not As Expected |
| Internet Data: History | As Expected | Not As Expected | Not As Expected |
| Internet Data: Email | NA | NA | NA |
| GPS Data: Coordinates/Geo-tagged | Not As Expected | Not As Expected | As Expected |
| Non-Latin Character: Reported in native format | As Expected | As Expected | As Expected |
| Hashing: Case File/ Individual Files | As Expected | As Expected | As Expected |
| Case File Data Protection: Modify Case Data | As Expected | As Expected | As Expected |
| SQLite Data: Report Active Data | As Expected | As Expected | As Expected |
| SQLite Data: Run SQLite Commands | 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 Inspector v10.5.

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

- Audio files are not reported for the iPhone 7, iPhone 8, iPhone XR, iPhone SE and iPhone 11.
- Document (pdf) files are not reported for the iPhone 7, iPhone 8, iPhone X, iPhone XR, iPhone SE and iPhone 11.

NOTE:

Audio and Document files can be manually found for the iPhone 8, iPhone X, iPhone XR, iPhone SE and iPhone 11.

See Table 4 below for more details.

Internal Memory Acquisition Cellebrite Inspector v10.5 Mobile Device Platform: iOS

| | one 7 | one 8 | iPhone X | iPhone XR | ne SE | iPhone 11 |
|--|----------|----------|----------|-----------|----------|-----------|
| Test Cases: | iPhone | iPhone | iPho | iPhoi | iPhone | iPho |
| Acquisition: Acquire All | As | As | As | As | As | As |
| | Expected | Expected | Expected | Expected | Expected | Expected |
| Acquisition: Disrupted | As | As | As | As | As | As |
| | Expected | Expected | Expected | Expected | Expected | Expected |
| Reporting: | As | As | As | As | As | As |
| Preview-Pane | Expected | Expected | Expected | Expected | Expected | Expected |
| Reporting: | As | As | As | As | As | As |
| Generated Reports | Expected | Expected | Expected | Expected | Expected | Expected |
| Equipment/User Data: | As | As | As | As | As | As |
| IMEI/MEID/ESN | Expected | Expected | Expected | Expected | Expected | Expected |
| Equipment/User Data: | As | As | As | As | As | As |
| MSISDN | Expected | Expected | Expected | Expected | Expected | Expected |
| PIM Data: | As | As | As | As | As | As |
| Contacts | Expected | Expected | Expected | Expected | Expected | Expected |
| PIM Data: | As | As | As | As | As | As |
| Calendar | Expected | Expected | Expected | Expected | Expected | Expected |
| PIM Data: | As | As | As | As | As | As |
| Memos/Notes | Expected | Expected | Expected | Expected | Expected | Expected |
| Call Logs: | As | As | As | As | As | As |
| Incoming | Expected | Expected | Expected | Expected | Expected | Expected |
| Call Logs: | As | As | As | As | As | As |
| Outgoing | Expected | Expected | Expected | Expected | Expected | Expected |
| Call Logs: | As | As | As | As | As | As |
| Missed | Expected | Expected | Expected | Expected | Expected | Expected |
| SMS Messages: | As | As | As | As | As | As |
| Incoming | Expected | Expected | Expected | Expected | Expected | Expected |
| SMS Messages: | As | As | As | As | As | As |
| Outgoing | Expected | Expected | Expected | Expected | Expected | Expected |
| MMS Messages: | As | As | As | As | As | As |
| Graphic | Expected | Expected | Expected | Expected | Expected | Expected |
| MMS Messages: | As | As | As | As | As | As |
| Audio | Expected | Expected | Expected | Expected | Expected | Expected |
| MMS Messages: | As | As | As | As | As | As |
| Video | Expected | Expected | Expected | Expected | Expected | Expected |
| Stand-alone Files: | As | As | As | As | As | As |
| Graphic | Expected | Expected | Expected | Expected | Expected | Expected |
| Stand-alone Files: | Not As | Not As | Not As | Not As | Not As | Not As |
| Audio | Expected | Expected | Expected | Expected | Expected | Expected |
| Stand-alone Files: | As | As | As | As | As | As |
| Video | Expected | Expected | Expected | Expected | Expected | Expected |
| Application Data: Documents (txt, pdf files) | Not As | Not As | Not As | Not As | Not As | Not As |
| | Expected | Expected | Expected | Expected | Expected | Expected |

| Test Cases: | iPhone 7 | iPhone 8 | iPhone X | iPhone XR | iPhone SE | iPhone 11 |
|---------------------------------|----------|----------|----------|-----------|-----------|-----------|
| Social Media Data: Facebook | NA | NA | NA | NA | NA | NA |
| Social Media Data: Twitter | NA | NA | NA | NA | NA | NA |
| Social Media Data: LinkedIn | NA | NA | NA | NA | NA | NA |
| Social Media Data: Instagram | NA | NA | NA | NA | NA | NA |
| Social Media Data: Pinterest | NA | NA | NA | NA | NA | NA |
| Social Media Data: SnapChat | NA | NA | NA | NA | NA | NA |
| Social Media Data: | NA | As | As | As | As | As |
| WhatsApp | | Expected | Expected | Expected | Expected | Expected |
| Internet Data: | As | As | As | As | As | As |
| Bookmarks | Expected | Expected | Expected | Expected | Expected | Expected |
| Internet Data: | As | As | As | As | As | As |
| History | Expected | Expected | Expected | Expected | Expected | Expected |
| Internet Data: Email | NA | NA | NA | NA | NA | NA |
| GPS Data: | As | As | As | As | As | As |
| Coordinates/Geo-tagged | Expected | Expected | Expected | Expected | Expected | Expected |
| Non-Latin Character: | As | As | As | As | As | As |
| Reported in native format | Expected | Expected | Expected | Expected | Expected | Expected |
| Hashing: | As | As | As | As | As | As |
| Case File/ Individual Files | Expected | Expected | Expected | Expected | Expected | Expected |
| Case File Data Protection: | As | As | As | As | As | As |
| Modify Case Data | Expected | Expected | Expected | Expected | Expected | Expected |
| SQLite Data: | As | As | As | As | As | As |
| Report Active Data | Expected | Expected | Expected | Expected | Expected | Expected |
| SQLite Data: | As | As | As | As | As | As |
| Run SQLite Commands | Expected | Expected | Expected | Expected | Expected | Expected |

Table 4: iOS Devices