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Test Results for Mobile Device Acquisition Tool: Lantern v2.3

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National Institute of
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Introduction

The Computer Forensics Tool Testing (CFTT) program is a joint project of the National Institute of Justice (NIJ), the Department of Homeland Security Science and Technology Directorate (DHS S&T), and the National Institute of Standards and Technology Law Enforcement Standards Office (OLES) 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, the U.S. Internal Revenue Service Criminal Investigation Division Electronic Crimes Program, 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 Naval Postgraduate School, the National White Collar Crime Center, the Commody Future Trading Commission, the U.S. Postal Service, and the Securities and Exchange Commission. 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, for users to make informed choices, and for the legal community and others to understand the tools' capabilities. The CFTT approach to testing computer forensic tools is based on well-recognized methodologies for conformance and quality testing. The specifications and test methods posted on the CFTT Web site (http://www.cftt.nist.gov/) are available for review and comment by the computer forensics community.

This document reports the results from testing Lantern version 2.3 against the *Smart Phone Tool Test Assertions and Test Plan*, available at the CFTT Web site (www.cftt.nist.gov/mobile_devices.htm).

Test results from other tools and the CFTT tool methodology can be found on NIJ's computer forensics tool testing Web

page, http://www.ojp.usdoj.gov/nij/topics/technology/electronic–crime/cftt.htm.

How to Read This Report

This report is divided into five sections. The first section is a summary of the results from the test runs. This section is sufficient for most readers to assess the suitability of the tool for the intended use. The remaining sections of the report describe how the tests were conducted, discuss any anomalies that were encountered and provide documentation of test case run details that support the report summary. Section 2 gives justification for the selection of test cases from the set of possible cases defined in the test plan for Smart Phone forensic tools. The test cases are selected, in general, based on the basis of features offered by the tool. Section 3 describes in more depth any anomalies summarized in the first section. Section 4 lists hardware and software used to run the test cases. Section 5

contains a description of each test case run. The description of each test run lists all test assertions used in the test case, the expected result and the actual result. Please refer to the vendor's owner manual for guidance on using the tool.

Test Results for Mobile Device Data Acquisition Tool

Tool Tested: Lantern

Version: 2.3

Run Environment: Mac OS X v10.6.8

Supplier: Katana Forensics, Inc.

Address: 1425 K St. NW Suite 350
Washington, DC 20005

Tel: 855–552–8262
WWW: http://www.katanaforensics.com

1 Results Summary

Lantern version 2.3 is designed for logical acquisitions, data analysis, and report management from mobile devices running iOS.

The tool was tested for its ability to acquire data from the internal memory of mobile devices running iOS. Except for the following anomalies, the tool acquired all supported data objects completely and accurately for all four mobile devices tested.

Acquisition attempt of nonsupported devices:

- Attempting acquisition of a nonsupported device (i.e., iPod Nano) did not provide an error message stating the device is not supported. A force quit on the acquisition had to be performed. (iPod Nano)

Subscriber-and equipment-related information:

- Subscriber related information was not reported. (iPhone4 CDMA)
- Equipment related information was not reported. (iPhone4 CDMA)

Personal Information Management (PIM) data:

- Address book entries that contained data fields for the First, Middle and Last names only reported the First and Last name e.g., John Doe Smith was reported as: John Smith. (iPhone4 GSM, iPhone4 CDMA, iPhone_3.1.2, iPhone_3.1.3)

Acquisition of Internet related data:

- Internet related data i.e., bookmarks were not reported. (iPhone_3.1.2, iPhone_3.1.3)

Refer to sections 3.1–3.4 for additional details.

2 Test Case Selection

Test cases used to test mobile device acquisition tools are defined in *Smart Phone Tool Test Assertions and Test Plan Version 1.0*. To test a tool, test cases are selected from the

Test Plan document based on the features offered by the tool. Not all test cases or test assertions are appropriate for all tools. There is a core set of bases cases that are executed for every tool tested. Tool features guide the selection of additional test cases. If a given tool implements a given feature then the test cases linked to that feature are run. Tables (1a-1d) list the test cases available in Smartphone Examiner. Tables (2a-2d) list the test cases not available in Smartphone Examiner.

Table 1a: Selected Test Cases (iPhone4 GSM)

Supported Optional Feature	Cases Selected for Execution
Base cases	SPT-01, SPT-02, SPT-03, SPT-04, SPT-05, SPT-06, SPT-07, SPT-08, SPT-09, SPT-10, SPT-12, SPT-13
Acquire mobile device internal memory and review reported data via supported generated report formats.	SPT-24
Acquire mobile device internal memory and review reported data via the preview pane.	SPT-25
Acquire mobile device internal memory and review data containing non-ASCII characters.	SPT-33
Acquire mobile device internal memory and review hash values for vendor supported data objects.	SPT-38
Acquire mobile device internal memory and review data containing GPS longitude and latitude coordinates.	SPT-40

Table 2a: Omitted Test Cases (iPhone4 GSM)

Unsupported Optional Feature	Cases omitted - not executed
Acquire mobile device internal memory and review application related data (i.e., word documents, spreadsheet, presentation documents).	SPT-11
Acquire SIM memory over supported interfaces (e.g., PC/SC reader).	SPT-14
Attempt acquisition of a nonsupported SIM.	SPT-15
Begin SIM acquisition and interrupt connectivity by interface disengagement.	SPT-16
Acquire SIM memory and review reported subscriber and equipment related information (i.e., SPN, ICCID, IMSI, MSISDN).	SPT-17
Acquire SIM memory and review reported Abbreviated Dialing Numbers (ADN).	SPT-18
Acquire SIM memory and review reported Last Numbers Dialed (LND).	SPT-19
Acquire SIM memory and review reported text messages (SMS, EMS).	SPT-20
Acquire SIM memory and review recoverable deleted text messages (SMS, EMS).	SPT-21

Unsupported Optional Feature	Cases omitted - not executed
Acquire SIM memory and review reported location related data (i.e., LOCI, GPRSLOCI).	SPT-22
Acquire SIM memory by selecting a combination of supported data elements.	SPT-23
Acquire SIM memory and review reported data via supported generated report formats.	SPT-26
Acquire SIM memory and review reported data via the preview-pane.	SPT-27
Attempt acquisition of a password-protected SIM.	SPT-28
After a successful mobile device internal memory, alter the case file via third-party means and attempt to re-open the case.	SPT-29
After a successful SIM acquisition, alter the case file via third-party means and attempt to re-open the case.	SPT-30
Perform a physical acquisition and review data output for readability.	SPT-31
Perform a physical acquisition and review reports for recoverable deleted data.	SPT-32
Acquire SIM memory and review data containing non-ASCII characters.	SPT-34
Begin acquisition on a PIN protected SIM to determine if the tool provides an accurate count of the remaining number of PIN attempts and if the PIN attempts are decremented when entering an incorrect value.	SPT-35
Begin acquisition on a SIM whose PIN attempts have been exhausted to determine if the tool provides an accurate count of the remaining number of PUK attempts and if the PUK attempts are decremented when entering an incorrect value.	SPT-36
Perform a stand-alone mobile device internal memory acquisition and review the status flags for text messages present on the SIM.	SPT-37
Acquire SIM memory and review hash values for vendor supported data objects.	SPT-39

Table 1b: Selected Test Cases (iPhone4 CDMA)

Supported Optional Feature	Cases Selected for Execution
	SPT-01, SPT-02, SPT-03, SPT-04, SPT-05, SPT-06, SPT-07, SPT-08, SPT-09, SPT-10, SPT-12, SPT-13
Acquire mobile device internal memory and review reported data via supported generated report formats.	SPT-24
Acquire mobile device internal memory and review reported data via the preview pane.	SPT-25
Acquire mobile device internal memory and review data containing non-ASCII characters.	SPT-33
Acquire mobile device internal memory and review hash values for vendor supported	SPT-38

Supported Optional Feature	Cases Selected for Execution
data objects.	
Acquire mobile device internal memory and review data containing GPS longitude and latitude coordinates.	SPT-40

Table 2b: Omitted Test Cases (iPhone4 CDMA)

Unsupported Optional Feature	Cases omitted - not executed
Acquire mobile device internal memory and review application related data (i.e., word documents, spreadsheet, presentation documents).	SPT-11
Acquire SIM memory over supported interfaces (e.g., PC/SC reader).	SPT-14
Attempt acquisition of a nonsupported SIM.	SPT-15
Begin SIM acquisition and interrupt connectivity by interface disengagement.	SPT-16
Acquire SIM memory and review reported subscriber and equipment related information (i.e., SPN, ICCID, IMSI, MSISDN).	SPT-17
Acquire SIM memory and review reported Abbreviated Dialing Numbers (ADN).	SPT-18
Acquire SIM memory and review reported Last Numbers Dialed (LND).	SPT-19
Acquire SIM memory and review reported text messages (SMS, EMS).	SPT-20
Acquire SIM memory and review recoverable deleted text messages (SMS, EMS).	SPT-21
Acquire SIM memory and review reported location related data (i.e., LOCI, GPRSLOCI).	SPT-22
Acquire SIM memory by selecting a combination of supported data elements.	SPT-23
Acquire SIM memory and review reported data via supported generated report formats.	SPT-26
Acquire SIM memory and review reported data via the preview-pane.	SPT-27
Attempt acquisition of a password-protected SIM.	SPT-28
After a successful mobile device internal memory, alter the case file via third-party means and attempt to re-open the case.	SPT-29
After a successful SIM acquisition, alter the case file via third-party means and attempt to re-open the case.	SPT-30
Perform a physical acquisition and review data output for readability.	SPT-31
Perform a physical acquisition and review reports for recoverable deleted data.	SPT-32
Acquire SIM memory and review data containing non-ASCII characters.	SPT-34
Begin acquisition on a PIN protected SIM to determine if the tool provides an accurate count of the remaining number of PIN attempts and if the PIN attempts are decremented when entering an incorrect value.	SPT-35
Begin acquisition on a SIM whose PIN attempts have been exhausted to determine if the tool provides an accurate count of the remaining number	SPT-36

Unsupported Optional Feature	Cases omitted - not executed
of PUK attempts and if the PUK attempts are decremented when entering an incorrect value.	
Perform a stand-alone mobile device internal memory acquisition and review the status flags for text messages present on the SIM.	SPT-37
Acquire SIM memory and review hash values for vendor supported data objects.	SPT-39

Table 1c: Selected Test Cases (iPhone_3.1.2)

Supported Optional Feature	Cases Selected for Execution
Base cases	SPT-01, SPT-02, SPT-03, SPT-04, SPT-05, SPT-06, SPT-07, SPT-08, SPT-09, SPT-10, SPT-12, SPT-13
Acquire mobile device internal memory and review reported data via supported generated report formats.	SPT-24
Acquire mobile device internal memory and review reported data via the preview pane.	SPT-25
Acquire mobile device internal memory and review data containing non-ASCII characters.	SPT-33
Acquire mobile device internal memory and review hash values for vendor supported data objects.	SPT-38
Acquire mobile device internal memory and review data containing GPS longitude and latitude coordinates.	SPT-40

Table 2c: Omitted Test Cases (iPhone_3.1.2)

Unsupported Optional Feature	Cases omitted - not executed
Acquire mobile device internal memory and review application related data (i.e., word documents, spreadsheet, presentation documents).	SPT-11
Acquire SIM memory over supported interfaces (e.g., PC/SC reader).	SPT-14
Attempt acquisition of a nonsupported SIM.	SPT-15
Begin SIM acquisition and interrupt connectivity by interface disengagement.	SPT-16
Acquire SIM memory and review reported subscriber and equipment related information (i.e., SPN, ICCID, IMSI, MSISDN).	SPT-17
Acquire SIM memory and review reported Abbreviated Dialing Numbers (ADN).	SPT-18
Acquire SIM memory and review reported Last Numbers Dialed (LND).	SPT-19

Unsupported Optional Feature	Cases omitted - not executed
Acquire SIM memory and review reported text messages (SMS, EMS).	SPT-20
Acquire SIM memory and review recoverable deleted text messages (SMS, EMS).	SPT-21
Acquire SIM memory and review reported location related data (i.e., LOCI, GPRSLOCI).	SPT-22
Acquire SIM memory by selecting a combination of supported data elements.	SPT-23
Acquire SIM memory and review reported data via supported generated report formats.	SPT-26
Acquire SIM memory and review reported data via the preview-pane.	SPT-27
Attempt acquisition of a password-protected SIM.	SPT-28
After a successful mobile device internal memory, alter the case file via third-party means and attempt to re-open the case.	SPT-29
After a successful SIM acquisition, alter the case file via third-party means and attempt to re-open the case.	SPT-30
Perform a physical acquisition and review data output for readability.	SPT-31
Perform a physical acquisition and review reports for recoverable deleted data.	SPT-32
Acquire SIM memory and review data containing non-ASCII characters.	SPT-34
Begin acquisition on a PIN protected SIM to determine if the tool provides an accurate count of the remaining number of PIN attempts and if the PIN attempts are decremented when entering an incorrect value.	SPT-35
Begin acquisition on a SIM whose PIN attempts have been exhausted to determine if the tool provides an accurate count of the remaining number of PUK attempts and if the PUK attempts are decremented when entering an incorrect value.	SPT-36
Perform a stand-alone mobile device internal memory acquisition and review the status flags for text messages present on the SIM.	SPT-37
Acquire SIM memory and review hash values for vendor supported data objects.	SPT-39

Table 1d: Selected Test Cases (iPhone_3.1.3)

Supported Optional Feature	Cases Selected for Execution
Base cases	SPT-01, SPT-02, SPT-03, SPT-04, SPT-05, SPT-06, SPT-07, SPT-08, SPT-09, SPT-10, SPT-12, SPT-13
Acquire mobile device internal memory and review reported data via supported generated report formats.	SPT-24
Acquire mobile device internal memory and review reported data via the preview pane.	SPT-25
Acquire mobile device internal memory and review data containing non-ASCII	SPT-33

Supported Optional Feature	Cases Selected for Execution
characters.	
Acquire mobile device internal memory and review hash values for vendor supported data objects.	SPT-38
Acquire mobile device internal memory and review data containing GPS longitude and latitude coordinates.	SPT-40

Table 2d: Omitted Test Cases (iPhone_3.1.3)

Unsupported Optional Feature	Cases omitted - not executed
Acquire mobile device internal memory and review application related data (i.e., word documents, spreadsheet, presentation documents).	SPT-11
Acquire SIM memory over supported interfaces (e.g., PC/SC reader).	SPT-14
Attempt acquisition of a nonsupported SIM.	SPT-15
Begin SIM acquisition and interrupt connectivity by interface disengagement.	SPT-16
Acquire SIM memory and review reported subscriber and equipment related information (i.e., SPN, ICCID, IMSI, MSISDN).	SPT-17
Acquire SIM memory and review reported Abbreviated Dialing Numbers (ADN).	SPT-18
Acquire SIM memory and review reported Last Numbers Dialed (LND).	SPT-19
Acquire SIM memory and review reported text messages (SMS, EMS).	SPT-20
Acquire SIM memory and review recoverable deleted text messages (SMS, EMS).	SPT-21
Acquire SIM memory and review reported location related data (i.e., LOCI, GPRSLOCI).	SPT-22
Acquire SIM memory by selecting a combination of supported data elements.	SPT-23
Acquire SIM memory and review reported data via supported generated report formats.	SPT-26
Acquire SIM memory and review reported data via the preview-pane.	SPT-27
Attempt acquisition of a password-protected SIM.	SPT-28
After a successful mobile device internal memory, alter the case file via third-party means and attempt to re-open the case.	SPT-29
After a successful SIM acquisition, alter the case file via third-party means and attempt to re-open the case.	SPT-30
Perform a physical acquisition and review data output for readability.	SPT-31
Perform a physical acquisition and review reports for recoverable deleted data.	SPT-32
Acquire SIM memory and review data containing non-ASCII characters.	SPT-34
Begin acquisition on a PIN protected SIM to determine if the tool provides an accurate count of the remaining number of PIN attempts and if the PIN	SPT-35

Unsupported Optional Feature	Cases omitted - not executed
attempts are decremented when entering an incorrect value.	
Begin acquisition on a SIM whose PIN attempts have been exhausted to determine if the tool provides an accurate count of the remaining number of PUK attempts and if the PUK attempts are decremented when entering an incorrect value.	SPT-36
Perform a stand-alone mobile device internal memory acquisition and review the status flags for text messages present on the SIM.	SPT-37
Acquire SIM memory and review hash values for vendor supported data objects.	SPT-39

3 Results by Test Assertion

A test assertion is a verifiable statement about a single condition after an action is performed by the tool under test. A test case usually checks a group of assertions after the action of a single execution of the tool under test. Test assertions are defined and linked to test cases in *Smart Phone Tool Test Assertions and Test Plan Version 1.0*.

Tables 3a – 3d summarize the test results by assertion. The column labeled **Assertions Tested** describes the text of each assertion. The column labeled **Tests** gives the number of test cases that use the given assertion. The column labeled **Anomaly** gives the section number in this report where any anomalies are discussed.

Table 3a: Assertions Tested (iPhone4 GSM)

Assertions Tested	Tests	Anomaly
SPT-CA-01 If a cellular forensic tool provides support for connectivity of the target device then the tool shall successfully recognize the target device via all vendor supported interfaces (e.g., cable, Bluetooth, IrDA).	1	
SPT-CA-02 If a cellular forensic tool attempts to connect to a nonsupported device then the tool shall notify the user that the device is not supported.	1	3.1
SPT-CA-03 If connectivity between the mobile device and cellular forensic tool is disrupted then the tool shall notify the user that connectivity has been disrupted.	1	
SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview pane or generated report.	2	
SPT-CA-05 If a cellular forensic tool completes acquisition of the target device without error then subscriber-related information shall be presented in a useable format.	1	
SPT-CA-06 If a cellular forensic tool completes acquisition of the target device without error then equipment related information shall be	1	

Assertions Tested	Tests	Anomaly
presented in a useable format.		
SPT-CA-07 If a cellular forensic tool completes acquisition of the target device without error then address book entries shall be presented in a useable format.	1	
SPT-CA-08 If a cellular forensic tool completes acquisition of the target device without error then maximum length address book entries shall be presented in a useable format.	1	3.3
SPT-CA-09 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing special characters shall be presented in a useable format.	1	
SPT-CA-10 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing blank names shall be presented in a useable format.	1	
SPT-CA-11 If a cellular forensic tool completes acquisition of the target device without error then email addresses associated with address book entries shall be presented in a useable format.	1	
SPT-CA-12 If a cellular forensic tool completes acquisition of the target device without error then graphics associated with address book entries shall be presented in a useable format.	1	
SPT-CA-13 If a cellular forensic tool completes acquisition of the target device without error then datebook, calendar, note entries shall be presented in a useable format.	1	
SPT-CA-14 If a cellular forensic tool completes acquisition of the target device without error then maximum length datebook, calendar, note entries shall be presented in a useable format.	1	
SPT-CA-15 If a cellular forensic tool completes acquisition of the target device without error then call logs (incoming/outgoing/missed) shall be presented in a useable format.	1	
SPT-CA-16 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps and the duration of the call for call logs shall be presented in a useable format.	1	
SPT-CA-17 If a cellular forensic tool completes acquisition of the target device without error then ASCII text messages (i.e., SMS, EMS) shall be presented in a useable format.	1	
SPT-CA-18 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps for text messages shall be presented in a useable format.	1	
SPT-CA-19 If a cellular forensic tool completes acquisition of the target device without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format.	1	
SPT-CA-20 If a cellular forensic tool completes acquisition of the target device without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format.	1	
SPT-CA-21 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated audio shall be	1	

Assertions Tested	Tests	Anomaly
presented in a useable format.		
SPT-CA-22 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated graphic files shall be presented in a useable format.	1	
SPT-CA-23 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated video shall be presented in a useable format.	1	
SPT-CA-24 If a cellular forensic tool completes acquisition of the target device without error then stand-alone audio files shall be presented in a useable format via either an internal application or suggested third-party application.	1	
SPT-CA-25 If a cellular forensic tool completes acquisition of the target device without error then stand-alone graphic files shall be presented in a useable format via either an internal application or suggested third-party application.	1	
SPT-CA-26 If a cellular forensic tool completes acquisition of the target device without error then stand-alone video files shall be presented in a useable format via either an internal application or suggested third-party application.	1	
SPT-CA-28 If a cellular forensic tool completes acquisition of the target device without error then Internet related data (i.e., bookmarks, visited sites) cached to the device shall be acquired and presented in a useable format.	1	
SPT-CA-29 If a cellular forensic tool provides the user with an "Acquire All" device data objects acquisition option then the tool shall complete the acquisition of all data objects without error.	2	
SPT-CA-30 If a cellular forensic tool provides the user with a "Select All" individual device data objects then the tool shall complete the acquisition of all individually selected data objects without error.	2	
SPT-CA-31 If a cellular forensic tool provides the user with the ability to "Select Individual" device data objects for acquisition then the tool shall acquire each exclusive data object without error.	2	
SPT-CA-32 If a cellular forensic tool completes two consecutive logical acquisitions of the target device without error then the payload (data objects) on the mobile device shall remain consistent.	1	
SPT-AO-25 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format via supported generated report formats.	1	
SPT-AO-26 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format in a preview pane view.	1	
SPT-AO-40 If the cellular forensic tool supports display of non-ASCII characters then the application should present address book entries in their native format.	1	
SPT-AO-41 If the cellular forensic tool supports proper display of non-	1	

Assertions Tested	Tests	Anomaly
ASCII characters then the application should present text messages in their native format.		
SPT-AO-43 If the cellular forensic tool supports hashing for individual data objects then the tool shall present the user with a hash value for each supported data object.	1	
SPT-AO-44 If the cellular forensic tool supports acquisition of GPS data then the tool shall present the user with the longitude and latitude coordinates for all GPS-related data in a useable format.	1	

Table 3b: Assertions Tested: (iPhone4 CDMA)

Assertions Tested	Tests	Anomaly
SPT-CA-01 If a cellular forensic tool provides support for connectivity of the target device then the tool shall successfully recognize the target device via all vendor supported interfaces (e.g., cable, Bluetooth, IrDA).	1	
SPT-CA-02 If a cellular forensic tool attempts to connect to a nonsupported device then the tool shall notify the user that the device is not supported.	1	3.1
SPT-CA-03 If connectivity between the mobile device and cellular forensic tool is disrupted then the tool shall notify the user that connectivity has been disrupted.	1	
SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview pane or generated report.	2	
SPT-CA-05 If a cellular forensic tool completes acquisition of the target device without error then subscriber-related information shall be presented in a useable format.	1	3.2
SPT-CA-06 If a cellular forensic tool completes acquisition of the target device without error then equipment related information shall be presented in a useable format.	1	3.2
SPT-CA-07 If a cellular forensic tool completes acquisition of the target device without error then address book entries shall be presented in a useable format.	1	
SPT-CA-08 If a cellular forensic tool completes acquisition of the target device without error then maximum length address book entries shall be presented in a useable format.	1	3.3
SPT-CA-09 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing special characters shall be presented in a useable format.	1	
SPT-CA-10 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing blank names shall be presented in a useable format.	1	
SPT-CA-11 If a cellular forensic tool completes acquisition of the target device without error then email addresses associated with address book	1	

Assertions Tested	Tests	Anomaly
entries shall be presented in a useable format.		
SPT-CA-12 If a cellular forensic tool completes acquisition of the target device without error then graphics associated with address book entries shall be presented in a useable format.	1	
SPT-CA-13 If a cellular forensic tool completes acquisition of the target device without error then datebook, calendar, note entries shall be presented in a useable format.	1	
SPT-CA-14 If a cellular forensic tool completes acquisition of the target device without error then maximum length datebook, calendar, note entries shall be presented in a useable format.	1	
SPT-CA-15 If a cellular forensic tool completes acquisition of the target device without error then call logs (incoming/outgoing/missed) shall be presented in a useable format.	1	
SPT-CA-16 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps and the duration of the call for call logs shall be presented in a useable format.	1	
SPT-CA-17 If a cellular forensic tool completes acquisition of the target device without error then ASCII text messages (i.e., SMS, EMS) shall be presented in a useable format.	1	
SPT-CA-18 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps for text messages shall be presented in a useable format.	1	
SPT-CA-19 If a cellular forensic tool completes acquisition of the target device without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format.	1	
SPT-CA-20 If a cellular forensic tool completes acquisition of the target device without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format.	1	
SPT-CA-21 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated audio shall be presented in a useable format.	1	
SPT-CA-22 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated graphic files shall be presented in a useable format.	1	
SPT-CA-23 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated video shall be presented in a useable format.	1	
SPT-CA-24 If a cellular forensic tool completes acquisition of the target device without error then stand-alone audio files shall be presented in a useable format via either an internal application or suggested third-party application.	1	
SPT-CA-25 If a cellular forensic tool completes acquisition of the target device without error then stand-alone graphic files shall be presented in a useable format via either an internal application or suggested third-party application.	1	

Assertions Tested	Tests	Anomaly
SPT-CA-26 If a cellular forensic tool completes acquisition of the target device without error then stand-alone video files shall be presented in a useable format via either an internal application or suggested third-party application.	1	
SPT-CA-28 If a cellular forensic tool completes acquisition of the target device without error then Internet related data (i.e., bookmarks, visited sites) cached to the device shall be acquired and presented in a useable format.	1	
SPT-CA-29 If a cellular forensic tool provides the user with an "Acquire All" device data objects acquisition option then the tool shall complete the acquisition of all data objects without error.	2	
SPT-CA-30 If a cellular forensic tool provides the user with a "Select All" individual device data objects then the tool shall complete the acquisition of all individually selected data objects without error.	2	
SPT-CA-31 If a cellular forensic tool provides the user with the ability to "Select Individual" device data objects for acquisition then the tool shall acquire each exclusive data object without error.	2	
SPT-CA-32 If a cellular forensic tool completes two consecutive logical acquisitions of the target device without error then the payload (data objects) on the mobile device shall remain consistent.	1	
SPT-AO-25 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format via supported generated report formats.	1	
SPT-AO-26 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format in a preview pane view.	1	
SPT-AO-40 If the cellular forensic tool supports display of non-ASCII characters then the application should present address book entries in their native format.	1	
SPT-AO-41 If the cellular forensic tool supports proper display of non-ASCII characters then the application should present text messages in their native format.	1	
SPT-AO-43 If the cellular forensic tool supports hashing for individual data objects then the tool shall present the user with a hash value for each supported data object.	1	
SPT-AO-44 If the cellular forensic tool supports acquisition of GPS data then the tool shall present the user with the longitude and latitude coordinates for all GPS-related data in a useable format.	1	

Table 3c: Assertions Tested: (iPhone_3.1.2)

Assertions Tested	Tests	Anomaly
SPT-CA-01 If a cellular forensic tool provides support for connectivity of the target device then the tool shall successfully recognize the target device via all vendor supported interfaces (e.g., cable, Bluetooth, IrDA).	1	
SPT-CA-02 If a cellular forensic tool attempts to connect to a	1	3.1

Assertions Tested	Tests	Anomaly
nonsupported device then the tool shall notify the user that the device is not supported.		
SPT-CA-03 If connectivity between the mobile device and cellular forensic tool is disrupted then the tool shall notify the user that connectivity has been disrupted.	1	
SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview pane or generated report.	2	
SPT-CA-05 If a cellular forensic tool completes acquisition of the target device without error then subscriber-related information shall be presented in a useable format.	1	
SPT-CA-06 If a cellular forensic tool completes acquisition of the target device without error then equipment related information shall be presented in a useable format.	1	
SPT-CA-07 If a cellular forensic tool completes acquisition of the target device without error then address book entries shall be presented in a useable format.	1	
SPT-CA-08 If a cellular forensic tool completes acquisition of the target device without error then maximum length address book entries shall be presented in a useable format.	1	3.3
SPT-CA-09 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing special characters shall be presented in a useable format.	1	
SPT-CA-10 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing blank names shall be presented in a useable format.	1	
SPT-CA-11 If a cellular forensic tool completes acquisition of the target device without error then email addresses associated with address book entries shall be presented in a useable format.	1	
SPT-CA-12 If a cellular forensic tool completes acquisition of the target device without error then graphics associated with address book entries shall be presented in a useable format.	1	
SPT-CA-13 If a cellular forensic tool completes acquisition of the target device without error then datebook, calendar, note entries shall be presented in a useable format.	1	
SPT-CA-14 If a cellular forensic tool completes acquisition of the target device without error then maximum length datebook, calendar, note entries shall be presented in a useable format.	1	
SPT-CA-15 If a cellular forensic tool completes acquisition of the target device without error then call logs (incoming/outgoing/missed) shall be presented in a useable format.	1	
SPT-CA-16 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps and the duration of the call for call logs shall be presented in a useable format.	1	

Assertions Tested	Tests	Anomaly
SPT-CA-17 If a cellular forensic tool completes acquisition of the target device without error then ASCII text messages (i.e., SMS, EMS) shall be presented in a useable format.	1	
SPT-CA-18 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps for text messages shall be presented in a useable format.	1	
SPT-CA-19 If a cellular forensic tool completes acquisition of the target device without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format.	1	
SPT-CA-20 If a cellular forensic tool completes acquisition of the target device without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format.	1	
SPT-CA-21 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated audio shall be presented in a useable format.	1	
SPT-CA-22 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated graphic files shall be presented in a useable format.	1	
SPT-CA-23 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated video shall be presented in a useable format.	1	
SPT-CA-24 If a cellular forensic tool completes acquisition of the target device without error then stand-alone audio files shall be presented in a useable format via either an internal application or suggested third-party application.	1	
SPT-CA-25 If a cellular forensic tool completes acquisition of the target device without error then stand-alone graphic files shall be presented in a useable format via either an internal application or suggested third-party application.	1	
SPT-CA-26 If a cellular forensic tool completes acquisition of the target device without error then stand-alone video files shall be presented in a useable format via either an internal application or suggested third-party application.	1	
SPT-CA-28 If a cellular forensic tool completes acquisition of the target device without error then Internet related data (i.e., bookmarks, visited sites) cached to the device shall be acquired and presented in a useable format.	1	3.4
SPT-CA-29 If a cellular forensic tool provides the user with an “Acquire All” device data objects acquisition option then the tool shall complete the acquisition of all data objects without error.	2	
SPT-CA-30 If a cellular forensic tool provides the user with a “Select All” individual device data objects then the tool shall complete the acquisition of all individually selected data objects without error.	2	
SPT-CA-31 If a cellular forensic tool provides the user with the ability to “Select Individual” device data objects for acquisition then the tool	2	

Assertions Tested	Tests	Anomaly
shall acquire each exclusive data object without error.		
SPT-CA-32 If a cellular forensic tool completes two consecutive logical acquisitions of the target device without error then the payload (data objects) on the mobile device shall remain consistent.	1	
SPT-AO-25 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format via supported generated report formats.	1	
SPT-AO-26 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format in a preview pane view.	1	
SPT-AO-40 If the cellular forensic tool supports display of non-ASCII characters then the application should present address book entries in their native format.	1	
SPT-AO-41 If the cellular forensic tool supports proper display of non-ASCII characters then the application should present text messages in their native format.	1	
SPT-AO-43 If the cellular forensic tool supports hashing for individual data objects then the tool shall present the user with a hash value for each supported data object.	1	
SPT-AO-44 If the cellular forensic tool supports acquisition of GPS data then the tool shall present the user with the longitude and latitude coordinates for all GPS-related data in a useable format.	1	

Table 3d: Assertions Tested: (iPhone_3.1.3)

Assertions Tested	Tests	Anomaly
SPT-CA-01 If a cellular forensic tool provides support for connectivity of the target device then the tool shall successfully recognize the target device via all vendor supported interfaces (e.g., cable, Bluetooth, IrDA).	1	
SPT-CA-02 If a cellular forensic tool attempts to connect to a nonsupported device then the tool shall notify the user that the device is not supported.	1	3.1
SPT-CA-03 If connectivity between the mobile device and cellular forensic tool is disrupted then the tool shall notify the user that connectivity has been disrupted.	1	
SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview pane or generated report.	2	
SPT-CA-05 If a cellular forensic tool completes acquisition of the target device without error then subscriber-related information shall be presented in a useable format.	1	
SPT-CA-06 If a cellular forensic tool completes acquisition of the target device without error then equipment related information shall be presented in a useable format.	1	
SPT-CA-07 If a cellular forensic tool completes acquisition of the target	1	

Assertions Tested	Tests	Anomaly
device without error then address book entries shall be presented in a useable format.		
SPT-CA-08 If a cellular forensic tool completes acquisition of the target device without error then maximum length address book entries shall be presented in a useable format.	1	3.3
SPT-CA-09 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing special characters shall be presented in a useable format.	1	
SPT-CA-10 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing blank names shall be presented in a useable format.	1	
SPT-CA-11 If a cellular forensic tool completes acquisition of the target device without error then email addresses associated with address book entries shall be presented in a useable format.	1	
SPT-CA-12 If a cellular forensic tool completes acquisition of the target device without error then graphics associated with address book entries shall be presented in a useable format.	1	
SPT-CA-13 If a cellular forensic tool completes acquisition of the target device without error then datebook, calendar, note entries shall be presented in a useable format.	1	
SPT-CA-14 If a cellular forensic tool completes acquisition of the target device without error then maximum length datebook, calendar, note entries shall be presented in a useable format.	1	
SPT-CA-15 If a cellular forensic tool completes acquisition of the target device without error then call logs (incoming/outgoing/missed) shall be presented in a useable format.	1	
SPT-CA-16 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps and the duration of the call for call logs shall be presented in a useable format.	1	
SPT-CA-17 If a cellular forensic tool completes acquisition of the target device without error then ASCII text messages (i.e., SMS, EMS) shall be presented in a useable format.	1	
SPT-CA-18 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps for text messages shall be presented in a useable format.	1	
SPT-CA-19 If a cellular forensic tool completes acquisition of the target device without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format.	1	
SPT-CA-20 If a cellular forensic tool completes acquisition of the target device without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format.	1	
SPT-CA-21 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated audio shall be presented in a useable format.	1	
SPT-CA-22 If a cellular forensic tool completes acquisition of the target	1	

Assertions Tested	Tests	Anomaly
device without error then MMS messages and associated graphic files shall be presented in a useable format.		
SPT-CA-23 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated video shall be presented in a useable format.	1	
SPT-CA-24 If a cellular forensic tool completes acquisition of the target device without error then stand-alone audio files shall be presented in a useable format via either an internal application or suggested third-party application.	1	
SPT-CA-25 If a cellular forensic tool completes acquisition of the target device without error then stand-alone graphic files shall be presented in a useable format via either an internal application or suggested third-party application.	1	
SPT-CA-26 If a cellular forensic tool completes acquisition of the target device without error then stand-alone video files shall be presented in a useable format via either an internal application or suggested third-party application.	1	
SPT-CA-28 If a cellular forensic tool completes acquisition of the target device without error then Internet related data (i.e., bookmarks, visited sites) cached to the device shall be acquired and presented in a useable format.	1	3.4
SPT-CA-29 If a cellular forensic tool provides the user with an "Acquire All" device data objects acquisition option then the tool shall complete the acquisition of all data objects without error.	2	
SPT-CA-30 If a cellular forensic tool provides the user with an "Select All" individual device data objects then the tool shall complete the acquisition of all individually selected data objects without error.	2	
SPT-CA-31 If a cellular forensic tool provides the user with the ability to "Select Individual" device data objects for acquisition then the tool shall acquire each exclusive data object without error.	2	
SPT-CA-32 If a cellular forensic tool completes two consecutive logical acquisitions of the target device without error then the payload (data objects) on the mobile device shall remain consistent.	1	
SPT-AO-25 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format via supported generated report formats.	1	
SPT-AO-26 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format in a preview pane view.	1	
SPT-AO-40 If the cellular forensic tool supports display of non-ASCII characters then the application should present address book entries in their native format.	1	
SPT-AO-41 If the cellular forensic tool supports proper display of non-ASCII characters then the application should present text messages in their native format.	1	

Assertions Tested	Tests	Anomaly
SPT-AO-43 If the cellular forensic tool supports hashing for individual data objects then the tool shall present the user with a hash value for each supported data object.	1	
SPT-AO-44 If the cellular forensic tool supports acquisition of GPS data then the tool shall present the user with the longitude and latitude coordinates for all GPS-related data in a useable format.	1	

Table 4a-4d list the assertions that were not tested, usually due to the tool not supporting an optional feature.

Table 4a: Assertions Not Tested (iPhone4 GSM)

Assertions Not Tested
SPT-CA-27 If a cellular forensic tool completes acquisition of the target device without error then device specific application related data shall be acquired and presented in a useable format via either an internal application or suggested third-party application.
SPT-AO-01 If a cellular forensic tool provides support for connectivity of the target SIM then the tool shall successfully recognize the target SIM via all tool-supported interfaces (e.g., PC/SC reader, proprietary reader, Smart Phone itself).
SPT-AO-02 If a cellular forensic tool attempts to connect to a nonsupported SIM then the tool shall notify the user that the SIM is not supported.
SPT-AO-03 If a cellular forensic tool loses connectivity with the SIM reader then the tool shall notify the user that connectivity has been disrupted.
SPT-AO-04 If a cellular forensic tool completes acquisition of the target SIM without error then the SPN shall be presented in a useable format.
SPT-AO-05 If a cellular forensic tool completes acquisition of the target SIM without error then the ICCID shall be presented in a useable format.
SPT-AO-06 If a cellular forensic tool completes acquisition of the target SIM without error then the IMSI shall be presented in a useable format.
SPT-AO-07 If a cellular forensic tool completes acquisition of the target SIM without error then the MSISDN shall be presented in a useable format.
SPT-AO-08 If a cellular forensic tool completes acquisition of the target SIM without error then ASCII Abbreviated Dialing Numbers (ADN) shall be presented in a useable format.
SPT-AO-09 If a cellular forensic tool completes acquisition of the target SIM without error then maximum length ADNs shall be presented in a useable format.
SPT-AO-10 If a cellular forensic tool completes acquisition of the SIM without error then ADNs containing special characters shall be presented in a useable format.
SPT-AO-11 If a cellular forensic tool completes acquisition of the SIM without error then ADNs containing blank names shall be presented in a useable format.
SPT-AO-12 If a cellular forensic tool completes acquisition of the target SIM without error then Last Numbers Dialed (LND) shall be presented in a useable format.
SPT-AO-13 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding date/time stamps for LNDs shall be presented in a useable format.

Assertions Not Tested
SPT-AO-14 If a cellular forensic tool completes acquisition of the target SIM without error then ASCII SMS text messages shall be presented in a useable format.
SPT-AO-15 If a cellular forensic tool completes acquisition of the target SIM without error then ASCII EMS text messages shall be presented in a useable format.
SPT-AO-16 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding date/time stamps for all text messages shall be presented in a useable format.
SPT-AO-17 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format.
SPT-AO-18 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format.
SPT-AO-19 If the cellular forensic tool completes acquisition of the target SIM without error then deleted text messages that have not been overwritten shall be presented in a useable format.
SPT-AO-20 If a cellular forensic tool completes acquisition of the target SIM without error then location related data (i.e., LOCI) shall be presented in a useable format.
SPT-AO-21 If a cellular forensic tool completes acquisition of the target SIM without error then location related data (i.e., GRPSLOCI) shall be presented in a useable format.
SPT-AO-22 If a cellular forensic tool provides the user with an “Acquire All” SIM data objects acquisition option then the tool shall complete the acquisition of all data objects without error.
SPT-AO-23 If a cellular forensic tool provides the user with a “Select All” individual SIM data objects then the tool shall complete the acquisition of all individually selected data objects without error.
SPT-AO-24 If a cellular forensic tool provides the user with the ability to “Select Individual” SIM data objects for acquisition then the tool shall acquire each exclusive data object without error.
SPT-AO-27 If the case file or individual data objects are modified via third-party means then the tool shall provide protection mechanisms disallowing or reporting data modification.
SPT-AO-28 If the SIM is password-protected then the cellular forensic tool shall provide the examiner with the opportunity to input the PIN before acquisition.
SPT-AO-29 If a cellular forensic tool provides the examiner with the remaining number of authentication attempts then the application should provide an accurate count of the remaining PIN attempts.
SPT-AO-30 If a cellular forensic tool provides the examiner with the remaining number of PUK attempts then the application should provide an accurate count of the remaining PUK attempts.
SPT-AO-31 If the cellular forensic tool supports a physical acquisition of the target device then the tool shall complete the acquisition without error.
SPT-AO-32 If the cellular forensic tool supports the interpretation of address book entries present on the target device then the tool shall report recoverable active and deleted data or address book data remnants in a useable format.

Assertions Not Tested
SPT-AO-33 If the cellular forensic tool supports the interpretation of calendar, tasks, or notes present on the target device then the tool shall report recoverable active and deleted calendar, tasks, or note data remnants in a useable format.
SPT-AO-34 If the cellular forensic tool supports the interpretation of call logs present on the target device then the tool shall report recoverable active and deleted call or call log data remnants in a useable format.
SPT-AO-35 If the cellular forensic tool supports the interpretation of SMS messages present on the target device then the tool shall report recoverable active and deleted SMS messages or SMS message data remnants in a useable format.
SPT-AO-36 If the cellular forensic tool supports the interpretation of EMS messages present on the target device then the tool shall report recoverable active and deleted EMS messages or EMS message data remnants in a useable format.
SPT-AO-37 If the cellular forensic tool supports the interpretation of audio files present on the target device then the tool shall report recoverable active and deleted audio data or audio file data remnants in a useable format.
SPT-AO-38 If the cellular forensic tool supports the interpretation of graphic files present on the target device then the tool shall report recoverable active and deleted graphic file data or graphic file data remnants in a useable format.
SPT-AO-39 If the cellular forensic tool supports the interpretation of video files present on the target device then the tool shall report recoverable active and deleted video file data or video file data remnants in a useable format.
SPT-AO-42 If the cellular forensic tool supports stand-alone acquisition of internal memory with the SIM present, then the contents of the SIM shall not be modified during internal memory acquisition.

Table 4b: Assertions Not Tested (iPhone4 CDMA)

Assertions Not Tested
SPT-CA-27 If a cellular forensic tool completes acquisition of the target device without error then device specific application related data shall be acquired and presented in a useable format via either an internal application or suggested third-party application.
SPT-AO-01 If a cellular forensic tool provides support for connectivity of the target SIM then the tool shall successfully recognize the target SIM via all tool-supported interfaces (e.g., PC/SC reader, proprietary reader, Smart Phone itself).
SPT-AO-02 If a cellular forensic tool attempts to connect to a nonsupported SIM then the tool shall notify the user that the SIM is not supported.
SPT-AO-03 If a cellular forensic tool loses connectivity with the SIM reader then the tool shall notify the user that connectivity has been disrupted.
SPT-AO-04 If a cellular forensic tool completes acquisition of the target SIM without error then the SPN shall be presented in a useable format.
SPT-AO-05 If a cellular forensic tool completes acquisition of the target SIM without error then the ICCID shall be presented in a useable format.
SPT-AO-06 If a cellular forensic tool completes acquisition of the target SIM without error then the IMSI shall be presented in a useable format.
SPT-AO-07 If a cellular forensic tool completes acquisition of the target SIM without

Assertions Not Tested
error then the MSISDN shall be presented in a useable format.
SPT-AO-08 If a cellular forensic tool completes acquisition of the target SIM without error then ASCII Abbreviated Dialing Numbers (ADN) shall be presented in a useable format.
SPT-AO-09 If a cellular forensic tool completes acquisition of the target SIM without error then maximum length ADNs shall be presented in a useable format.
SPT-AO-10 If a cellular forensic tool completes acquisition of the SIM without error then ADNs containing special characters shall be presented in a useable format.
SPT-AO-11 If a cellular forensic tool completes acquisition of the SIM without error then ADNs containing blank names shall be presented in a useable format.
SPT-AO-12 If a cellular forensic tool completes acquisition of the target SIM without error then Last Numbers Dialed (LND) shall be presented in a useable format.
SPT-AO-13 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding date/time stamps for LNDs shall be presented in a useable format.
SPT-AO-14 If a cellular forensic tool completes acquisition of the target SIM without error then ASCII SMS text messages shall be presented in a useable format.
SPT-AO-15 If a cellular forensic tool completes acquisition of the target SIM without error then ASCII EMS text messages shall be presented in a useable format.
SPT-AO-16 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding date/time stamps for all text messages shall be presented in a useable format.
SPT-AO-17 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format.
SPT-AO-18 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format.
SPT-AO-19 If the cellular forensic tool completes acquisition of the target SIM without error then deleted text messages that have not been overwritten shall be presented in a useable format.
SPT-AO-20 If a cellular forensic tool completes acquisition of the target SIM without error then location related data (i.e., LOCI) shall be presented in a useable format.
SPT-AO-21 If a cellular forensic tool completes acquisition of the target SIM without error then location related data (i.e., GRPSLOCI) shall be presented in a useable format.
SPT-AO-22 If a cellular forensic tool provides the user with an “Acquire All” SIM data objects acquisition option then the tool shall complete the acquisition of all data objects without error.
SPT-AO-23 If a cellular forensic tool provides the user with a “Select All” individual SIM data objects then the tool shall complete the acquisition of all individually selected data objects without error.
SPT-AO-24 If a cellular forensic tool provides the user with the ability to “Select Individual” SIM data objects for acquisition then the tool shall acquire each exclusive data object without error.
SPT-AO-27 If the case file or individual data objects are modified via third-party means

Assertions Not Tested
then the tool shall provide protection mechanisms disallowing or reporting data modification.
SPT-AO-28 If the SIM is password-protected then the cellular forensic tool shall provide the examiner with the opportunity to input the PIN before acquisition.
SPT-AO-29 If a cellular forensic tool provides the examiner with the remaining number of authentication attempts then the application should provide an accurate count of the remaining PIN attempts.
SPT-AO-30 If a cellular forensic tool provides the examiner with the remaining number of PUK attempts then the application should provide an accurate count of the remaining PUK attempts.
SPT-AO-31 If the cellular forensic tool supports a physical acquisition of the target device then the tool shall complete the acquisition without error.
SPT-AO-32 If the cellular forensic tool supports the interpretation of address book entries present on the target device then the tool shall report recoverable active and deleted data or address book data remnants in a useable format.
SPT-AO-33 If the cellular forensic tool supports the interpretation of calendar, tasks, or notes present on the target device then the tool shall report recoverable active and deleted calendar, tasks, or note data remnants in a useable format.
SPT-AO-34 If the cellular forensic tool supports the interpretation of call logs present on the target device then the tool shall report recoverable active and deleted call or call log data remnants in a useable format.
SPT-AO-35 If the cellular forensic tool supports the interpretation of SMS messages present on the target device then the tool shall report recoverable active and deleted SMS messages or SMS message data remnants in a useable format.
SPT-AO-36 If the cellular forensic tool supports the interpretation of EMS messages present on the target device then the tool shall report recoverable active and deleted EMS messages or EMS message data remnants in a useable format.
SPT-AO-37 If the cellular forensic tool supports the interpretation of audio files present on the target device then the tool shall report recoverable active and deleted audio data or audio file data remnants in a useable format.
SPT-AO-38 If the cellular forensic tool supports the interpretation of graphic files present on the target device then the tool shall report recoverable active and deleted graphic file data or graphic file data remnants in a useable format.
SPT-AO-39 If the cellular forensic tool supports the interpretation of video files present on the target device then the tool shall report recoverable active and deleted video file data or video file data remnants in a useable format.
SPT-AO-42 If the cellular forensic tool supports stand-alone acquisition of internal memory with the SIM present, then the contents of the SIM shall not be modified during internal memory acquisition.

Table 4c: Assertions Not Tested (iPhone_3.1.2)

Assertions Not Tested
SPT-CA-27 If a cellular forensic tool completes acquisition of the target device without error then device specific application related data shall be acquired and presented in a

Assertions Not Tested
useable format via either an internal application or suggested third-party application.
SPT-AO-01 If a cellular forensic tool provides support for connectivity of the target SIM then the tool shall successfully recognize the target SIM via all tool-supported interfaces (e.g., PC/SC reader, proprietary reader, Smart Phone itself).
SPT-AO-02 If a cellular forensic tool attempts to connect to a nonsupported SIM then the tool shall notify the user that the SIM is not supported.
SPT-AO-03 If a cellular forensic tool loses connectivity with the SIM reader then the tool shall notify the user that connectivity has been disrupted.
SPT-AO-04 If a cellular forensic tool completes acquisition of the target SIM without error then the SPN shall be presented in a useable format.
SPT-AO-05 If a cellular forensic tool completes acquisition of the target SIM without error then the ICCID shall be presented in a useable format.
SPT-AO-06 If a cellular forensic tool completes acquisition of the target SIM without error then the IMSI shall be presented in a useable format.
SPT-AO-07 If a cellular forensic tool completes acquisition of the target SIM without error then the MSISDN shall be presented in a useable format.
SPT-AO-08 If a cellular forensic tool completes acquisition of the target SIM without error then ASCII Abbreviated Dialing Numbers (ADN) shall be presented in a useable format.
SPT-AO-09 If a cellular forensic tool completes acquisition of the target SIM without error then maximum length ADNs shall be presented in a useable format.
SPT-AO-10 If a cellular forensic tool completes acquisition of the SIM without error then ADNs containing special characters shall be presented in a useable format.
SPT-AO-11 If a cellular forensic tool completes acquisition of the SIM without error then ADNs containing blank names shall be presented in a useable format.
SPT-AO-12 If a cellular forensic tool completes acquisition of the target SIM without error then Last Numbers Dialed (LND) shall be presented in a useable format.
SPT-AO-13 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding date/time stamps for LNDs shall be presented in a useable format.
SPT-AO-14 If a cellular forensic tool completes acquisition of the target SIM without error then ASCII SMS text messages shall be presented in a useable format.
SPT-AO-15 If a cellular forensic tool completes acquisition of the target SIM without error then ASCII EMS text messages shall be presented in a useable format.
SPT-AO-16 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding date/time stamps for all text messages shall be presented in a useable format.
SPT-AO-17 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format.
SPT-AO-18 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format.
SPT-AO-19 If the cellular forensic tool completes acquisition of the target SIM without error then deleted text messages that have not been overwritten shall be presented in a

Assertions Not Tested
useable format.
SPT-AO-20 If a cellular forensic tool completes acquisition of the target SIM without error then location related data (i.e., LOCI) shall be presented in a useable format.
SPT-AO-21 If a cellular forensic tool completes acquisition of the target SIM without error then location related data (i.e., GRPSLOCI) shall be presented in a useable format.
SPT-AO-22 If a cellular forensic tool provides the user with an “Acquire All” SIM data objects acquisition option then the tool shall complete the acquisition of all data objects without error.
SPT-AO-23 If a cellular forensic tool provides the user with a “Select All” individual SIM data objects then the tool shall complete the acquisition of all individually selected data objects without error.
SPT-AO-24 If a cellular forensic tool provides the user with the ability to “Select Individual” SIM data objects for acquisition then the tool shall acquire each exclusive data object without error.
SPT-AO-27 If the case file or individual data objects are modified via third-party means then the tool shall provide protection mechanisms disallowing or reporting data modification.
SPT-AO-28 If the SIM is password-protected then the cellular forensic tool shall provide the examiner with the opportunity to input the PIN before acquisition.
SPT-AO-29 If a cellular forensic tool provides the examiner with the remaining number of authentication attempts then the application should provide an accurate count of the remaining PIN attempts.
SPT-AO-30 If a cellular forensic tool provides the examiner with the remaining number of PUK attempts then the application should provide an accurate count of the remaining PUK attempts.
SPT-AO-31 If the cellular forensic tool supports a physical acquisition of the target device then the tool shall complete the acquisition without error.
SPT-AO-32 If the cellular forensic tool supports the interpretation of address book entries present on the target device then the tool shall report recoverable active and deleted data or address book data remnants in a useable format.
SPT-AO-33 If the cellular forensic tool supports the interpretation of calendar, tasks, or notes present on the target device then the tool shall report recoverable active and deleted calendar, tasks, or note data remnants in a useable format.
SPT-AO-34 If the cellular forensic tool supports the interpretation of call logs present on the target device then the tool shall report recoverable active and deleted call or call log data remnants in a useable format.
SPT-AO-35 If the cellular forensic tool supports the interpretation of SMS messages present on the target device then the tool shall report recoverable active and deleted SMS messages or SMS message data remnants in a useable format.
SPT-AO-36 If the cellular forensic tool supports the interpretation of EMS messages present on the target device then the tool shall report recoverable active and deleted EMS messages or EMS message data remnants in a useable format.
SPT-AO-37 If the cellular forensic tool supports the interpretation of audio files present on the target device then the tool shall report recoverable active and deleted audio data or audio file data remnants in a useable format.

Assertions Not Tested
SPT-AO-38 If the cellular forensic tool supports the interpretation of graphic files present on the target device then the tool shall report recoverable active and deleted graphic file data or graphic file data remnants in a useable format.
SPT-AO-39 If the cellular forensic tool supports the interpretation of video files present on the target device then the tool shall report recoverable active and deleted video file data or video file data remnants in a useable format.
SPT-AO-42 If the cellular forensic tool supports stand-alone acquisition of internal memory with the SIM present, then the contents of the SIM shall not be modified during internal memory acquisition.

Table 4d: Assertions Not Tested (iPhone_3.1.3)

Assertions Not Tested
SPT-CA-27 If a cellular forensic tool completes acquisition of the target device without error then device specific application related data shall be acquired and presented in a useable format via either an internal application or suggested third-party application.
SPT-AO-01 If a cellular forensic tool provides support for connectivity of the target SIM then the tool shall successfully recognize the target SIM via all tool-supported interfaces (e.g., PC/SC reader, proprietary reader, Smart Phone itself).
SPT-AO-02 If a cellular forensic tool attempts to connect to a nonsupported SIM then the tool shall notify the user that the SIM is not supported.
SPT-AO-03 If a cellular forensic tool loses connectivity with the SIM reader then the tool shall notify the user that connectivity has been disrupted.
SPT-AO-04 If a cellular forensic tool completes acquisition of the target SIM without error then the SPN shall be presented in a useable format.
SPT-AO-05 If a cellular forensic tool completes acquisition of the target SIM without error then the ICCID shall be presented in a useable format.
SPT-AO-06 If a cellular forensic tool completes acquisition of the target SIM without error then the IMSI shall be presented in a useable format.
SPT-AO-07 If a cellular forensic tool completes acquisition of the target SIM without error then the MSISDN shall be presented in a useable format.
SPT-AO-08 If a cellular forensic tool completes acquisition of the target SIM without error then ASCII Abbreviated Dialing Numbers (ADN) shall be presented in a useable format.
SPT-AO-09 If a cellular forensic tool completes acquisition of the target SIM without error then maximum length ADNs shall be presented in a useable format.
SPT-AO-10 If a cellular forensic tool completes acquisition of the SIM without error then ADNs containing special characters shall be presented in a useable format.
SPT-AO-11 If a cellular forensic tool completes acquisition of the SIM without error then ADNs containing blank names shall be presented in a useable format.
SPT-AO-12 If a cellular forensic tool completes acquisition of the target SIM without error then Last Numbers Dialed (LND) shall be presented in a useable format.
SPT-AO-13 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding date/time stamps for LNDs shall be presented in a useable format.

Assertions Not Tested
SPT-AO-14 If a cellular forensic tool completes acquisition of the target SIM without error then ASCII SMS text messages shall be presented in a useable format.
SPT-AO-15 If a cellular forensic tool completes acquisition of the target SIM without error then ASCII EMS text messages shall be presented in a useable format.
SPT-AO-16 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding date/time stamps for all text messages shall be presented in a useable format.
SPT-AO-17 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format.
SPT-AO-18 If a cellular forensic tool completes acquisition of the target SIM without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format.
SPT-AO-19 If the cellular forensic tool completes acquisition of the target SIM without error then deleted text messages that have not been overwritten shall be presented in a useable format.
SPT-AO-20 If a cellular forensic tool completes acquisition of the target SIM without error then location related data (i.e., LOCI) shall be presented in a useable format.
SPT-AO-21 If a cellular forensic tool completes acquisition of the target SIM without error then location related data (i.e., GRPSLOCI) shall be presented in a useable format.
SPT-AO-22 If a cellular forensic tool provides the user with an “Acquire All” SIM data objects acquisition option then the tool shall complete the acquisition of all data objects without error.
SPT-AO-23 If a cellular forensic tool provides the user with a “Select All” individual SIM data objects then the tool shall complete the acquisition of all individually selected data objects without error.
SPT-AO-24 If a cellular forensic tool provides the user with the ability to “Select Individual” SIM data objects for acquisition then the tool shall acquire each exclusive data object without error.
SPT-AO-27 If the case file or individual data objects are modified via third-party means then the tool shall provide protection mechanisms disallowing or reporting data modification.
SPT-AO-28 If the SIM is password-protected then the cellular forensic tool shall provide the examiner with the opportunity to input the PIN before acquisition.
SPT-AO-29 If a cellular forensic tool provides the examiner with the remaining number of authentication attempts then the application should provide an accurate count of the remaining PIN attempts.
SPT-AO-30 If a cellular forensic tool provides the examiner with the remaining number of PUK attempts then the application should provide an accurate count of the remaining PUK attempts.
SPT-AO-31 If the cellular forensic tool supports a physical acquisition of the target device then the tool shall complete the acquisition without error.
SPT-AO-32 If the cellular forensic tool supports the interpretation of address book entries present on the target device then the tool shall report recoverable active and deleted data or address book data remnants in a useable format.

Assertions Not Tested
SPT-AO-33 If the cellular forensic tool supports the interpretation of calendar, tasks, or notes present on the target device then the tool shall report recoverable active and deleted calendar, tasks, or note data remnants in a useable format.
SPT-AO-34 If the cellular forensic tool supports the interpretation of call logs present on the target device then the tool shall report recoverable active and deleted call or call log data remnants in a useable format.
SPT-AO-35 If the cellular forensic tool supports the interpretation of SMS messages present on the target device then the tool shall report recoverable active and deleted SMS messages or SMS message data remnants in a useable format.
SPT-AO-36 If the cellular forensic tool supports the interpretation of EMS messages present on the target device then the tool shall report recoverable active and deleted EMS messages or EMS message data remnants in a useable format.
SPT-AO-37 If the cellular forensic tool supports the interpretation of audio files present on the target device then the tool shall report recoverable active and deleted audio data or audio file data remnants in a useable format.
SPT-AO-38 If the cellular forensic tool supports the interpretation of graphic files present on the target device then the tool shall report recoverable active and deleted graphic file data or graphic file data remnants in a useable format.
SPT-AO-39 If the cellular forensic tool supports the interpretation of video files present on the target device then the tool shall report recoverable active and deleted video file data or video file data remnants in a useable format.
SPT-AO-42 If the cellular forensic tool supports stand-alone acquisition of internal memory with the SIM present, then the contents of the SIM shall not be modified during internal memory acquisition.

The following sections provide detailed information for the anomalies from Tables 3a – 3d.

3.1 Acquisition attempt of nonsupported devices

For test case SPT-02, Lantern did not provide an error message informing the examiner that acquisition of the device (i.e., iPod nano) was not supported. A force quit of the acquire had to be performed.

3.2 Acquisition of subscriber and equipment related information

Subscriber and equipment related information, for the iPhone4 CDMA i.e., International Mobile Equipment Identity (IMEI) and the Mobile Equipment Identity (MEID) was not reported for test case SPT-05.

3.3 Acquisition of Personal Information Management (PIM) data

For test case SPT-06, address book contacts containing data fields for the First, Middle and Last names, Lantern reported only the First and Last Names, e.g., John Doe Smith, was reported as: John Smith. The middle name was not reported for the iPhone4 GSM, iPhone4 CDMA, iPhone_3.1.2, and the iPhone_3.1.3.

3.4 Acquisition of Internet related data

For test case SPT-12, Internet related data (i.e., bookmarks) were not reported for the iPhone_3.1.2 and the iPhone_3.1.3.

4 Testing Environment

The tests were run in the NIST CFTT lab. This section describes the testing environment including available computers, mobile devices and the data objects used to populate mobile devices and Subscriber Identity Modules.

4.1 Test Computers

One computer was used to run the tool: **p630542**.
p630542 has the following configuration:

MacBook Pro
Intel® Core 2 Duo
Processor Speed: 2.6 GHz
Memory: 2GB
Boot ROM Version: MBP31.0070.B05

4.2 Mobile Devices

The following table lists the mobile devices used.

Table 4.2 Mobile Devices

Make	Model	OS	Network
Apple iPhone	4	iOS v4.3.3 (8J2)	AT&T
Apple iPhone	4	iOS v5.0.1 (9A405)	Verizon
Apple iPhone	3Gs	iOS v3.1.2 (7D11)	AT&T
Apple iPhone	3G	iOS v3.1.3 (7E18)	AT&T

4.3 Internal Memory Data Objects

The following data objects were used to populate the internal memory of the Smart Phone s.

Table 4.3 Internal memory data objects

Data Objects	Data Elements
Address Book Entries	
	Regular Length
	Maximum Length
	Special Character
	Blank Name
	Regular Length, email
	Regular Length, graphic
	Deleted Entry

Data Objects	Data Elements
	Non-ASCII Entry
PIM Data	
	Regular Length
	Maximum Length
	Deleted Entry
	Special Character
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
	Non-ASCII EMS
MMS Messages	
	Incoming Audio
	Incoming Graphic
	Incoming Video
	Outgoing Audio
	Outgoing Graphic
	Outgoing Video
Stand-alone data files	
	Audio
	Graphic
	Video
	Audio - Deleted
	Graphic - Deleted
	Video - Deleted
Application Data	
	Device Specific App Data
Location Data	
	GPS Coordinates

5 Test Results

The main item of interest for interpreting the test results is determining the conformance of the device with the test assertions. Conformance with each assertion tested by a given test case is evaluated by examining the **Log Highlights** box of the test report.

5.1 Test Results Report Key

The following table presents an explanation of each section of the test details in section 5.2. The Tester Name, Test Host, Test Date, Device, Source Setup and Log Highlights sections for each test case are populated by excerpts taken from the log files produced by the tool under test.

Table 5 Test Results Report Key

Heading	Description
First Line:	Test case ID, name, and version of tool tested.
Case Summary:	Test case summary from *Smart Phone Tool Test Assertion and Test Plan.*
Assertions:	The test assertions applicable to the test case, selected from *Smart Phone Tool Test Assertion and Test Plan.*
Tester Name:	Name or initials of person executing test procedure.
Test Host:	Host computer executing the test.
Test Date:	Time and date that test was started.
Device:	Source mobile device, SIM.
Source Setup:	Acquisition interface.
Log Highlights:	Information extracted from various log files to illustrate conformance or non-conformance to the test assertions.
Results:	Expected and actual results for each assertion tested.
Analysis:	Whether or not the expected results were achieved.

5.2 Test Details

The test results are presented in this section.

5.2.1 SPT-01 (iPhone4 GSM)

Test Case SPT-01 Lantern v2.3	
Case Summary:	SPT-01 Acquire mobile device internal memory over tool-supported interfaces (e.g., cable, Bluetooth, IrDA).
Assertions:	SPT-CA-01 If a cellular forensic tool provides support for connectivity of the target device then the tool shall successfully recognize the target device via all vendor supported interfaces (e.g., cable, Bluetooth, IrDA). SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview pane or generated report. SPT-CA-29 If a cellular forensic tool provides the user with an “Acquire All” device data objects acquisition option then the tool shall complete the acquisition of all data objects without error. SPT-CA-30 If a cellular forensic tool provides the user with a “Select All” individual device data objects then the tool shall complete the acquisition

<table>
<tr><th colspan="2">Test Case SPT-01 Lantern v2.3</th></tr>
<tr><td></td><td>of all individually selected data objects without error.
SPT-CA-31 If a cellular forensic tool provides the user with the ability to “Select Individual” device data objects for acquisition then the tool shall acquire each exclusive data object without error.
SPT-CA-32 If a cellular forensic tool completes two consecutive logical acquisitions of the target device without error then the payload (data objects) on the mobile device shall remain consistent.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Tue Sep 18 08:51:41 EDT 2012</td></tr>
<tr><td>Device:</td><td>iPhone4_GSM</td></tr>
<tr><td>Source Setup:</td><td>OS: Mac OS X v10.6.8
Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by Lantern v2.3
Acquisition started: Tue Sep 18 08:51:41 EDT 2012
Acquisition finished: Tue Sep 18 08:52:08 EDT 2012

Device connectivity was established via supported interface</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-01 Device connectivity via supported interfaces.</td><td>as expected</td></tr>
<tr><td>SPT-CA-04 Readability and completeness of acquired data via supported reports.</td><td>as expected</td></tr>
<tr><td>SPT-CA-29 Acquire-All data objects acquisition.</td><td>as expected</td></tr>
<tr><td>SPT-CA-30 Select-All data objects acquisition.</td><td>as expected</td></tr>
<tr><td>SPT-CA-31 Select-Individual data objects acquisition.</td><td>as expected</td></tr>
<tr><td>SPT-CA-32 Perform back-to-back acquisitions, check device payload for modifications.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

5.2.2 SPT-02 (iPhone4 GSM)

<table>
<tr><th colspan="2">Test Case SPT-02 Lantern v2.3</th></tr>
<tr><td>Case Summary:</td><td>SPT-02 Attempt internal memory acquisition of a nonsupported mobile device.</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-02 If a cellular forensic tool attempts to connect to a nonsupported device then the tool shall notify the user that the device is not supported.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Tue Sep 18 08:55:35 EDT 2012</td></tr>
<tr><td>Device:</td><td>unsupported_device</td></tr>
<tr><td>Source Setup:</td><td>OS: Mac OS X v10.6.8
Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by Lantern v2.3
Acquisition started: Tue Sep 18 08:55:35 EDT 2012
Acquisition finished: Tue Sep 18 08:56:37 EDT 2012

Identification of nonsupported devices was not successful

<u>Notes</u>:
Acquisition of nonsupported devices (i.e., iPod Nano) did not provide an error message stating the device was not supported.</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-02 Identification of nonsupported devices.</td><td>Not as expected</td></tr>
</table>
</td></tr>
</table>

Test Case SPT-02 Lantern v2.3	
Analysis:	Expected results not achieved

5.2.3 SPT-03 (iPhone4 GSM)

Test Case SPT-03 Lantern v2.3	
Case Summary:	SPT-03 Begin mobile device internal memory acquisition and interrupt connectivity by interface disengagement.
Assertions:	SPT-CA-03 If connectivity between the mobile device and cellular forensic tool is disrupted then the tool shall notify the user that connectivity has been disrupted.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 08:59:06 EDT 2012
Device:	iPhone4_GSM
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 08:59:06 EDT 2012 Acquisition finished: Tue Sep 18 08:59:50 EDT 2012 Device acquisition disruption notification was successful
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-03 Notification of device acquisition disruption. / as expected
Analysis:	Expected results achieved

5.2.4 SPT-04 (iPhone4 GSM)

Test Case SPT-04 Lantern v2.3	
Case Summary:	SPT-04 Acquire mobile device internal memory and review reported data via the preview pane or generated reports for readability.
Assertions:	SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview pane or generated report.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 09:02:43 EDT 2012
Device:	iPhone4_GSM
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 09:02:43 EDT 2012 Acquisition finished: Tue Sep 18 09:16:31 EDT 2012 Readability and completeness of acquired data was successful
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-04 Readability and completeness of acquired data via supported reports. / as expected

Test Case SPT-04 Lantern v2.3	
Analysis:	Expected results achieved

5.2.5 SPT-05 (iPhone4 GSM)

Test Case SPT-05 Lantern v2.3	
Case Summary:	SPT-05 Acquire mobile device internal memory and review reported subscriber and equipment related information (e.g., IMEI/MEID/ESN, MSISDN).
Assertions:	SPT-CA-05 If a cellular forensic tool completes acquisition of the target device without error then subscriber-related information shall be presented in a useable format. SPT-CA-06 If a cellular forensic tool completes acquisition of the target device without error then equipment related information shall be presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 10:58:14 EDT 2012
Device:	iPhone4_GSM
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 10:58:14 EDT 2012 Acquisition finished: Tue Sep 18 10:59:14 EDT 2012 Subscriber and Equipment related data (i.e., MSISDN, IMEI) were acquired
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-05 Acquisition of MSISDN, IMSI. — as expected SPT-CA-06 Acquisition of IMEI/MEID/ESN. — as expected
Analysis:	Expected results achieved

5.2.6 SPT-06 (iPhone4 GSM)

Test Case SPT-06 Lantern v2.3	
Case Summary:	SPT-06 Acquire mobile device internal memory and review reported PIM related data.
Assertions:	SPT-CA-07 If a cellular forensic tool completes acquisition of the target device without error then address book entries shall be presented in a useable format. SPT-CA-08 If a cellular forensic tool completes acquisition of the target device without error then maximum length address book entries shall be presented in a useable format. SPT-CA-09 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing special characters shall be presented in a useable format. SPT-CA-10 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing blank names shall be presented in a useable format. SPT-CA-11 If a cellular forensic tool completes acquisition of the target device without error then email addresses associated with address book entries shall be presented in a useable format. SPT-CA-12 If a cellular forensic tool completes acquisition of the target device without error then graphics associated with address book entries shall be presented in a useable format. SPT-CA-13 If a cellular forensic tool completes acquisition of the target device without error then datebook, calendar, note entries shall be presented in a useable format. SPT-CA-14 If a cellular forensic tool completes acquisition of the target device without error then maximum length datebook, calendar, note entries shall be presented in a useable format.

Test Case SPT-06 Lantern v2.3	
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 11:00:09 EDT 2012
Device:	iPhone4_GSM
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 11:00:09 EDT 2012 Acquisition finished: Tue Sep 18 11:09:01 EDT 2012 Regular Length Address Book entries were acquired Maximum Length Address Book entries were not acquired Special Character Address Book entries were acquired Blank Name Address Book entries were acquired Email addresses within Address Book entries were acquired Embedded graphics within Address Book entries were acquired ALL PIM related data was acquired **Notes**: Contact entries containing middle names only reported the first and last name.
Results:	

Assertion & Expected Result	**Actual Result**
SPT-CA-07 Acquisition of address book entries.	as expected
SPT-CA-08 Acquisition of maximum length address book entries.	Not as expected
SPT-CA-09 Acquisition of address book entries containing special characters.	as expected
SPT-CA-10 Acquisition of address book entries containing a blank name entry.	as expected
SPT-CA-11 Acquisition of embedded email addresses within address book entries.	as expected
SPT-CA-12 Acquisition of embedded graphics within address book entries.	as expected
SPT-CA-13 Acquisition of PIM data (i.e., datebook/calendar, notes).	as expected
SPT-CA-14 Acquisition of maximum length PIM data.	as expected

Analysis:	Partial results achieved

5.2.7 SPT-07 (iPhone4 GSM)

Test Case SPT-07 Lantern v2.3	
Case Summary:	SPT-07 Acquire mobile device internal memory and review reported call logs.
Assertions:	SPT-CA-15 If a cellular forensic tool completes acquisition of the target device without error then call logs (incoming/outgoing/missed) shall be presented in a useable format. SPT-CA-16 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps and the duration of the call for call logs shall be presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 11:14:57 EDT 2012
Device:	iPhone4_GSM
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 11:14:57 EDT 2012

Test Case SPT-07 Lantern v2.3	
	Acquisition finished: Tue Sep 18 11:15:49 EDT 2012 All Call Logs (incoming, outgoing, missed) were acquired All Call Log date/time stamps data were correctly reported
Results:	<table><tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr><tr><td>SPT-CA-15 Acquisition of call logs.</td><td>as expected</td></tr><tr><td>SPT-CA-16 Acquisition of call log date/time stamps.</td><td>as expected</td></tr></table>
Analysis:	Expected results achieved

5.2.8 SPT-08 (iPhone4 GSM)

Test Case SPT-08 Lantern v2.3	
Case Summary:	SPT-08 Acquire mobile device internal memory and review reported text messages.
Assertions:	SPT-CA-17 If a cellular forensic tool completes acquisition of the target device without error then ASCII text messages (i.e., SMS, EMS) shall be presented in a useable format. SPT-CA-18 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps for text messages shall be presented in a useable format. SPT-CA-19 If a cellular forensic tool completes acquisition of the target device without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format. SPT-CA-20 If a cellular forensic tool completes acquisition of the target device without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 11:16:56 EDT 2012
Device:	iPhone4_GSM
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 11:16:56 EDT 2012 Acquisition finished: Tue Sep 18 11:25:43 EDT 2012 ALL text messages (SMS, EMS) were acquired Correct date/time stamps were reported for all text messages Correct status flags were reported for all text messages Sender and Recipient phone numbers associated with text messages were correctly reported
Results:	<table><tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr><tr><td>SPT-CA-17 Acquisition of text messages.</td><td>as expected</td></tr><tr><td>SPT-CA-18 Acquisition of text message date/time stamps.</td><td>as expected</td></tr><tr><td>SPT-CA-19 Acquisition of text message status flags.</td><td>as expected</td></tr><tr><td>SPT-CA-20 Acquisition of sender/recipient phone number associated with text messages.</td><td>as expected</td></tr></table>
Analysis:	Expected results achieved

5.2.9 SPT-09 (iPhone4 GSM)

Test Case SPT-09 Lantern v2.3	
Case Summary:	SPT-09 Acquire mobile device internal memory and review reported MMS multi-media related data (i.e., text, audio, graphics, video).

<table>
<tr><th colspan="2">Test Case SPT-09 Lantern v2.3</th></tr>
<tr><td>Assertions:</td><td>SPT-CA-21 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated audio shall be presented in a useable format.
SPT-CA-22 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated graphic files shall be presented in a useable format.
SPT-CA-23 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated video shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Tue Sep 18 11:27:14 EDT 2012</td></tr>
<tr><td>Device:</td><td>iPhone4_GSM</td></tr>
<tr><td>Source Setup:</td><td>OS: Mac OS X v10.6.8
Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by Lantern v2.3
Acquisition started: Tue Sep 18 11:27:14 EDT 2012
Acquisition finished: Tue Sep 18 11:30:27 EDT 2012

ALL MMS messages (Audio, Image, Video) were acquired</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-21 Acquisition of audio MMS messages.</td><td>as expected</td></tr>
<tr><td>SPT-CA-22 Acquisition of graphic data image MMS messages.</td><td>as expected</td></tr>
<tr><td>SPT-CA-23 Acquisition of video MMS messages.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

5.2.10 SPT-10 (iPhone4 GSM)

<table>
<tr><th colspan="2">Test Case SPT-10 Lantern v2.3</th></tr>
<tr><td>Case Summary:</td><td>SPT-10 Acquire mobile device internal memory and review reported stand-alone multi-media data (i.e., audio, graphics, video).</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-24 If a cellular forensic tool completes acquisition of the target device without error then stand-alone audio files shall be presented in a useable format via either an internal application or suggested third-party application.
SPT-CA-25 If a cellular forensic tool completes acquisition of the target device without error then stand-alone graphic files shall be presented in a useable format via either an internal application or suggested third-party application.
SPT-CA-26 If a cellular forensic tool completes acquisition of the target device without error then stand-alone video files shall be presented in a useable format via either an internal application or suggested third-party application.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Tue Sep 18 11:31:42 EDT 2012</td></tr>
<tr><td>Device:</td><td>iPhone4_GSM</td></tr>
<tr><td>Source Setup:</td><td>OS: Mac OS X v10.6.8
Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by Lantern v2.3
Acquisition started: Tue Sep 18 11:31:42 EDT 2012
Acquisition finished: Tue Sep 18 11:38:01 EDT 2012

ALL stand-alone data files (Audio, Image, Video) were acquired</td></tr>
<tr><td>Results:</td><td></td></tr>
</table>

Test Case SPT-10 Lantern v2.3	
	Assertion & Expected Result / **Actual Result** SPT-CA-24 Acquisition of stand-alone audio files. — as expected SPT-CA-25 Acquisition of stand-alone graphic files. — as expected SPT-CA-26 Acquisition of stand-alone video files. — as expected
Analysis:	Expected results achieved

5.2.11 SPT-12 (iPhone4 GSM)

Test Case SPT-12 Lantern v2.3	
Case Summary:	SPT-12 Acquire mobile device internal memory and review Internet related data (i.e., bookmarks, visited sites.
Assertions:	SPT-CA-28 If a cellular forensic tool completes acquisition of the target device without error then Internet related data (i.e., bookmarks, visited sites) cached to the device shall be acquired and presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 11:52:05 EDT 2012
Device:	iPhone4_GSM
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 11:52:05 EDT 2012 Acquisition finished: Tue Sep 18 11:52:54 EDT 2012 All Internet related data was acquired
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-28 Acquisition of Internet related data. — as expected
Analysis:	Expected results achieved

5.2.12 SPT-13 (iPhone4 GSM)

Test Case SPT-13 Lantern v2.3	
Case Summary:	SPT-13 Acquire mobile device internal memory by selecting a combination of supported data elements.
Assertions:	SPT-CA-29 If a cellular forensic tool provides the user with an “Acquire All” device data objects acquisition option then the tool shall complete the acquisition of all data objects without error. SPT-CA-30 If a cellular forensic tool provides the user with an “Select All” individual device data objects then the tool shall complete the acquisition of all individually selected data objects without error. SPT-CA-31 If a cellular forensic tool provides the user with the ability to “Select Individual” device data objects for acquisition then the tool shall acquire each exclusive data object without error.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 11:55:03 EDT 2012
Device:	iPhone4_GSM
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 11:55:03 EDT 2012 Acquire All acquisition was successful

Test Case SPT-13 Lantern v2.3	
Results:	<table><tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr><tr><td>SPT-CA-29 Acquire-All data objects acquisition.</td><td>as expected</td></tr><tr><td>SPT-CA-30 Select-All data objects acquisition.</td><td>as expected</td></tr><tr><td>SPT-CA-31 Select-Individual data objects acquisition.</td><td>as expected</td></tr></table>
Analysis:	Expected results achieved

5.2.13 SPT-24 (iPhone4 GSM)

Test Case SPT-24 Lantern v2.3	
Case Summary:	SPT-24 Acquire mobile device internal memory and review reported data via supported generated report formats.
Assertions:	SPT-AO-25 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format via supported generated report formats.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 13:24:07 EDT 2012
Device:	iPhone4_GSM
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 13:24:07 EDT 2012 Acquisition finished: Tue Sep 18 13:32:48 EDT 2012 Complete representation of known data via generated reports was successful
Results:	<table><tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr><tr><td>SPT-AO-25 Comparison of known device data elements via generated reports.</td><td>as expected</td></tr></table>
Analysis:	Expected results achieved

5.2.14 SPT-25 (iPhone4 GSM)

Test Case SPT-25 Lantern v2.3	
Case Summary:	SPT-25 Acquire mobile device internal memory and review reported data via the preview pane.
Assertions:	SPT-AO-26 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format in a preview pane view.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 13:33:13 EDT 2012
Device:	iPhone4_GSM
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 13:33:13 EDT 2012 Acquisition finished: Tue Sep 18 13:33:52 EDT 2012 Complete representation of known data via preview pane was successful
Results:	<table><tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr></table>

Test Case SPT-25 Lantern v2.3		
	SPT-AO-26 Comparison of known device data elements via preview-pane.	as expected
Analysis:	Expected results achieved	

5.2.15 SPT-33 (iPhone4 GSM)

Test Case SPT-33 Lantern v2.3	
Case Summary:	SPT-33 Acquire mobile device internal memory and review data containing non-ASCII characters.
Assertions:	SPT-AO-40 If the cellular forensic tool supports display of non-ASCII characters then the application should present address book entries in their native format. SPT-AO-41 If the cellular forensic tool supports proper display of non-ASCII characters then the application should present text messages in their native format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 13:34:35 EDT 2012
Device:	iPhone4_GSM
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 13:34:35 EDT 2012 Acquisition finished: Tue Sep 18 13:35:22 EDT 2012 Non-ASCII Address book entries were acquired and properly displayed Non-ASCII text messages were acquired and properly displayed
Results:	

Assertion & Expected Result	Actual Result
SPT-AO-40 Acquisition of non-ASCII address book entries/ADNs.	as expected
SPT-AO-41 Acquisition of non-ASCII text messages.	as expected

Analysis:	Expected results achieved

5.2.16 SPT-38 (iPhone4 GSM)

Test Case SPT-38 Lantern v2.3	
Case Summary:	SPT-38 Acquire mobile device internal memory and review hash values for vendor supported data objects.
Assertions:	SPT-AO-43 If the cellular forensic tool supports hashing for individual data objects then the tool shall present the user with a hash value for each supported data object.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 13:38:26 EDT 2012
Device:	iPhone4_GSM
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 13:38:26 EDT 2012 Acquisition finished: Tue Sep 18 13:40:36 EDT 2012 Hash values were properly reported for individually acquired device data elements

Test Case SPT-38 Lantern v2.3	
Results:	**Assertion & Expected Result** / **Actual Result**: SPT-AO-43 Acquire data, check known hash values for consistency. / as expected
Analysis:	Expected results achieved

5.2.17 SPT-40 (iPhone4 GSM)

Test Case SPT-40 Lantern v2.3	
Case Summary:	SPT-40 Acquire mobile device internal memory and review data containing GPS longitude and latitude coordinates.
Assertions:	SPT-AO-44 If the cellular forensic tool supports acquisition of GPS data then the tool shall present the user with the longitude and latitude coordinates for all GPS-related data in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 13:41:50 EDT 2012
Device:	iPhone4_GSM
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 13:41:50 EDT 2012 Acquisition finished: Tue Sep 18 13:43:25 EDT 2012 GPS Coordinate data was successfully acquired
Results:	**Assertion & Expected Result** / **Actual Result**: SPT-AO-44 Acquire data, check GPS data for consistency. / as expected
Analysis:	Expected results achieved

5.2.18 SPT-01 (iPhone4 CDMA)

Test Case SPT-01 Lantern v2.3	
Case Summary:	SPT-01 Acquire mobile device internal memory over tool-supported interfaces (e.g., cable, Bluetooth, IrDA).
Assertions:	SPT-CA-01 If a cellular forensic tool provides support for connectivity of the target device then the tool shall successfully recognize the target device via all vendor supported interfaces (e.g., cable, Bluetooth, IrDA). SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview pane or generated report. SPT-CA-29 If a cellular forensic tool provides the user with an “Acquire All” device data objects acquisition option then the tool shall complete the acquisition of all data objects without error. SPT-CA-30 If a cellular forensic tool provides the user with a “Select All” individual device data objects then the tool shall complete the acquisition of all individually selected data objects without error. SPT-CA-31 If a cellular forensic tool provides the user with the ability to “Select Individual” device data objects for acquisition then the tool shall acquire each exclusive data object without error. SPT-CA-32 If a cellular forensic tool completes two consecutive logical acquisitions of the target device without error then the payload (data objects) on the mobile device shall remain consistent.
Tester Name:	rpa

Test Case SPT-01 Lantern v2.3	
Test Host:	p630542
Test Date:	Tue Sep 18 13:45:18 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 13:45:18 EDT 2012 Acquisition finished: Tue Sep 18 13:49:03 EDT 2012 Device connectivity was established via supported interface
Results:	

Assertion & Expected Result	Actual Result
SPT-CA-01 Device connectivity via supported interfaces.	as expected
SPT-CA-04 Readability and completeness of acquired data via supported reports.	as expected
SPT-CA-29 Acquire-All data objects acquisition.	as expected
SPT-CA-30 Select-All data objects acquisition.	as expected
SPT-CA-31 Select-Individual data objects acquisition.	as expected
SPT-CA-32 Perform back-to-back acquisitions, check device payload for modifications.	as expected

Analysis:	Expected results achieved

5.2.19 SPT-02 (iPhone4 CDMA)

Test Case SPT-02 Lantern v2.3	
Case Summary:	SPT-02 Attempt internal memory acquisition of a nonsupported mobile device.
Assertions:	SPT-CA-02 If a cellular forensic tool attempts to connect to a nonsupported device then the tool shall notify the user that the device is not supported.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 13:50:14 EDT 2012
Device:	unsupported_device
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 13:50:14 EDT 2012 Acquisition finished: Tue Sep 18 13:53:05 EDT 2012 Identification of nonsupported devices was not successful **Notes**: Acquisition of nonsupported devices (i.e., iPod Nano) did not provide an error message stating the device was not supported.
Results:	

Assertion & Expected Result	Actual Result
SPT-CA-02 Identification of nonsupported devices.	Not as expected

Analysis:	Expected results not achieved

5.2.20 SPT-03 (iPhone4 CDMA)

Test Case SPT-03 Lantern v2.3	
Case	SPT-03 Begin mobile device internal memory acquisition and interrupt

Test Case SPT-03 Lantern v2.3	
Summary:	connectivity by interface disengagement.
Assertions:	SPT-CA-03 If connectivity between the mobile device and cellular forensic tool is disrupted then the tool shall notify the user that connectivity has been disrupted.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 13:54:14 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 13:54:14 EDT 2012 Acquisition finished: Tue Sep 18 13:55:32 EDT 2012 Device acquisition disruption notification was successful
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-03 Notification of device acquisition disruption. / as expected
Analysis:	Expected results achieved

5.2.21 SPT-04 (iPhone4 CDMA)

Test Case SPT-04 Lantern v2.3	
Case Summary:	SPT-04 Acquire mobile device internal memory and review reported data via the preview pane or generated reports for readability.
Assertions:	SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview pane or generated report.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 14:01:18 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 14:01:18 EDT 2012 Acquisition finished: Tue Sep 18 14:02:30 EDT 2012 Readability and completeness of acquired data was successful
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-04 Readability and completeness of acquired data via supported reports. / as expected
Analysis:	Expected results achieved

5.2.22 SPT-05 (iPhone4 CDMA)

Test Case SPT-05 Lantern v2.3	
Case Summary:	SPT-05 Acquire mobile device internal memory and review reported subscriber and equipment related information (e.g., IMEI/MEID/ESN, MSISDN).
Assertions:	SPT-CA-05 If a cellular forensic tool completes acquisition of the target

Test Case SPT-05 Lantern v2.3	
	device without error then subscriber-related information shall be presented in a useable format. SPT-CA-06 If a cellular forensic tool completes acquisition of the target device without error then equipment related information shall be presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 14:12:08 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 14:12:08 EDT 2012 Acquisition finished: Tue Sep 18 14:12:46 EDT 2012 IMEI, MEID/ESN were not acquired
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-05 Acquisition of MSISDN, IMSI. — Not as expected SPT-CA-06 Acquisition of IMEI/MEID/ESN. — Not as expected
Analysis:	Expected results not achieved

5.2.23 SPT-06 (iPhone4 CDMA)

Test Case SPT-06 Lantern v2.3	
Case Summary:	SPT-06 Acquire mobile device internal memory and review reported PIM related data.
Assertions:	SPT-CA-07 If a cellular forensic tool completes acquisition of the target device without error then address book entries shall be presented in a useable format. SPT-CA-08 If a cellular forensic tool completes acquisition of the target device without error then maximum length address book entries shall be presented in a useable format. SPT-CA-09 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing special characters shall be presented in a useable format. SPT-CA-10 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing blank names shall be presented in a useable format. SPT-CA-11 If a cellular forensic tool completes acquisition of the target device without error then email addresses associated with address book entries shall be presented in a useable format. SPT-CA-12 If a cellular forensic tool completes acquisition of the target device without error then graphics associated with address book entries shall be presented in a useable format. SPT-CA-13 If a cellular forensic tool completes acquisition of the target device without error then datebook, calendar, note entries shall be presented in a useable format. SPT-CA-14 If a cellular forensic tool completes acquisition of the target device without error then maximum length datebook, calendar, note entries shall be presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 14:14:40 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 14:14:40 EDT 2012 Acquisition finished: Tue Sep 18 14:15:08 EDT 2012

Test Case SPT-06 Lantern v2.3	
	Regular Length Address Book entries were acquired Maximum Length Address Book entries were not acquired Special Character Address Book entries were acquired Blank Name Address Book entries were acquired Email addresses within Address Book entries were acquired Embedded graphics within Address Book entries were acquired ALL PIM related data was acquired **Notes**: Contact entries containing middle names only reported the first and last name.
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-07 Acquisition of address book entries. — as expected SPT-CA-08 Acquisition of maximum length address book entries. — Not as expected SPT-CA-09 Acquisition of address book entries containing special characters. — as expected SPT-CA-10 Acquisition of address book entries containing a blank name entry. — as expected SPT-CA-11 Acquisition of embedded email addresses within address book entries. — as expected SPT-CA-12 Acquisition of embedded graphics within address book entries. — as expected SPT-CA-13 Acquisition of PIM data (i.e., datebook/calendar, notes). — as expected SPT-CA-14 Acquisition of maximum length PIM data. — as expected
Analysis:	Partial results achieved

5.2.24 SPT-07 (iPhone4 CDMA)

Test Case SPT-07 Lantern v2.3	
Case Summary:	SPT-07 Acquire mobile device internal memory and review reported call logs.
Assertions:	SPT-CA-15 If a cellular forensic tool completes acquisition of the target device without error then call logs (incoming/outgoing/missed) shall be presented in a useable format. SPT-CA-16 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps and the duration of the call for call logs shall be presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 14:16:40 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 14:16:40 EDT 2012 Acquisition finished: Tue Sep 18 14:18:17 EDT 2012 All Call Logs (incoming, outgoing, missed) were acquired All Call Log date/time stamps data were correctly reported
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-15 Acquisition of call logs. — as expected SPT-CA-16 Acquisition of call log date/time stamps. — as expected

Test Case SPT-07 Lantern v2.3	
Analysis:	Expected results achieved

5.2.25 SPT-08 (iPhone4 CDMA)

Test Case SPT-08 Lantern v2.3	
Case Summary:	SPT-08 Acquire mobile device internal memory and review reported text messages.
Assertions:	SPT-CA-17 If a cellular forensic tool completes acquisition of the target device without error then ASCII text messages (i.e., SMS, EMS) shall be presented in a useable format. SPT-CA-18 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps for text messages shall be presented in a useable format. SPT-CA-19 If a cellular forensic tool completes acquisition of the target device without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format. SPT-CA-20 If a cellular forensic tool completes acquisition of the target device without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 14:19:39 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 14:19:39 EDT 2012 Acquisition finished: Tue Sep 18 14:20:52 EDT 2012 ALL text messages (SMS, EMS) were acquired Correct date/time stamps were reported for all text messages Correct status flags were reported for all text messages Sender and Recipient phone numbers associated with text messages were correctly reported
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-17 Acquisition of text messages. — as expected SPT-CA-18 Acquisition of text message date/time stamps. — as expected SPT-CA-19 Acquisition of text message status flags. — as expected SPT-CA-20 Acquisition of sender/recipient phone number associated with text messages. — as expected
Analysis:	Expected results achieved

5.2.26 SPT-09 (iPhone4 CDMA)

Test Case SPT-09 Lantern v2.3	
Case Summary:	SPT-09 Acquire mobile device internal memory and review reported MMS multi-media related data (i.e., text, audio, graphics, video).
Assertions:	SPT-CA-21 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated audio shall be presented in a useable format. SPT-CA-22 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated graphic files shall be presented in a useable format. SPT-CA-23 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated video shall be presented in a useable format.
Tester Name:	rpa

Test Case SPT-09 Lantern v2.3	
Test Host:	p630542
Test Date:	Tue Sep 18 14:20:41 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 14:20:41 EDT 2012 Acquisition finished: Tue Sep 18 14:21:49 EDT 2012 ALL MMS messages (Audio, Image, Video) were acquired
Results:	

Assertion & Expected Result	Actual Result
SPT-CA-21 Acquisition of audio MMS messages.	as expected
SPT-CA-22 Acquisition of graphic data image MMS messages.	as expected
SPT-CA-23 Acquisition of video MMS messages.	as expected

Analysis:	Expected results achieved

5.2.27 SPT-10 (iPhone4 CDMA)

Test Case SPT-10 Lantern v2.3	
Case Summary:	SPT-10 Acquire mobile device internal memory and review reported stand-alone multi-media data (i.e., audio, graphics, video).
Assertions:	SPT-CA-24 If a cellular forensic tool completes acquisition of the target device without error then stand-alone audio files shall be presented in a useable format via either an internal application or suggested third-party application. SPT-CA-25 If a cellular forensic tool completes acquisition of the target device without error then stand-alone graphic files shall be presented in a useable format via either an internal application or suggested third-party application. SPT-CA-26 If a cellular forensic tool completes acquisition of the target device without error then stand-alone video files shall be presented in a useable format via either an internal application or suggested third-party application.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 14:22:21 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 14:22:21 EDT 2012 Acquisition finished: Tue Sep 18 14:24:39 EDT 2012 ALL stand-alone data files (Audio, Image, Video) were acquired
Results:	

Assertion & Expected Result	Actual Result
SPT-CA-24 Acquisition of stand-alone audio files.	as expected
SPT-CA-25 Acquisition of stand-alone graphic files.	as expected
SPT-CA-26 Acquisition of stand-alone video files.	as expected

Analysis:	Expected results achieved

5.2.28 SPT-12 (iPhone4 CDMA)

Test Case SPT-12 Lantern v2.3	
Case Summary:	SPT-12 Acquire mobile device internal memory and review Internet related data (i.e., bookmarks, visited sites.
Assertions:	SPT-CA-28 If a cellular forensic tool completes acquisition of the target device without error then Internet related data (i.e., bookmarks, visited sites) cached to the device shall be acquired and presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 14:27:08 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 14:27:08 EDT 2012 Acquisition finished: Tue Sep 18 14:27:50 EDT 2012 All Internet related data was acquired
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-28 Acquisition of Internet related data. / as expected
Analysis:	Expected results achieved

5.2.29 SPT-13 (iPhone4 CDMA)

Test Case SPT-13 Lantern v2.3	
Case Summary:	SPT-13 Acquire mobile device internal memory by selecting a combination of supported data elements.
Assertions:	SPT-CA-29 If a cellular forensic tool provides the user with an “Acquire All” device data objects acquisition option then the tool shall complete the acquisition of all data objects without error. SPT-CA-30 If a cellular forensic tool provides the user with an “Select All” individual device data objects then the tool shall complete the acquisition of all individually selected data objects without error. SPT-CA-31 If a cellular forensic tool provides the user with the ability to “Select Individual” device data objects for acquisition then the tool shall acquire each exclusive data object without error.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 14:25:36 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 14:25:36 EDT 2012 Acquisition finished: Tue Sep 18 14:26:25 EDT 2012 Acquire All acquisition was successful
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-29 Acquire-All data objects acquisition. / as expected SPT-CA-30 Select-All data objects acquisition. / as expected SPT-CA-31 Select-Individual data objects acquisition. / as expected
Analysis:	Expected results achieved

5.2.30 SPT-24 (iPhone4 CDMA)

Test Case SPT-24 Lantern v2.3	
Case Summary:	SPT-24 Acquire mobile device internal memory and review reported data via supported generated report formats.
Assertions:	SPT-AO-25 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format via supported generated report formats.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 14:28:22 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 14:28:22 EDT 2012 Acquisition finished: Tue Sep 18 14:31:19 EDT 2012 Complete representation of known data via generated reports was successful
Results:	**Assertion & Expected Result** / **Actual Result** SPT-AO-25 Comparison of known device data elements via generated reports. / as expected
Analysis:	Expected results achieved

5.2.31 SPT-25 (iPhone4 CDMA)

Test Case SPT-25 Lantern v2.3	
Case Summary:	SPT-25 Acquire mobile device internal memory and review reported data via the preview pane.
Assertions:	SPT-AO-26 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format in a preview pane view.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 14:28:58 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 14:28:58 EDT 2012 Acquisition finished: Tue Sep 18 14:31:37 EDT 2012 Complete representation of known data via preview pane was successful
Results:	**Assertion & Expected Result** / **Actual Result** SPT-AO-26 Comparison of known device data elements via preview-pane. / as expected
Analysis:	Expected results achieved

5.2.32 SPT-33 (iPhone4 CDMA)

Test Case SPT-33 Lantern v2.3	
Case	SPT-33 Acquire mobile device internal memory and review data containing

Test Case SPT-33 Lantern v2.3	
Summary:	non-ASCII characters.
Assertions:	SPT-AO-40 If the cellular forensic tool supports display of non-ASCII characters then the application should present address book entries in their native format. SPT-AO-41 If the cellular forensic tool supports proper display of non-ASCII characters then the application should present text messages in their native format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 14:34:06 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 14:34:06 EDT 2012 Acquisition finished: Tue Sep 18 14:39:08 EDT 2012 Non-ASCII Address book entries were acquired and properly displayed Non-ASCII text messages were acquired and properly displayed
Results:	**Assertion & Expected Result** / **Actual Result** SPT-AO-40 Acquisition of non-ASCII address book entries/ADNs. / as expected SPT-AO-41 Acquisition of non-ASCII text messages. / as expected
Analysis:	Expected results achieved

5.2.33 SPT-38 (iPhone4 CDMA)

Test Case SPT-38 Lantern v2.3	
Case Summary:	SPT-38 Acquire mobile device internal memory and review hash values for vendor supported data objects.
Assertions:	SPT-AO-43 If the cellular forensic tool supports hashing for individual data objects then the tool shall present the user with a hash value for each supported data object.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 14:34:40 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 14:34:40 EDT 2012 Acquisition finished: Tue Sep 18 14:39:40 EDT 2012 Hash values were properly reported for individually acquired device data elements
Results:	**Assertion & Expected Result** / **Actual Result** SPT-AO-43 Acquire data, check known hash values for consistency. / as expected
Analysis:	Expected results achieved

5.2.34 SPT-40 (iPhone4 CDMA)

Test Case SPT-40 Lantern v2.3	
Case Summary:	SPT-40 Acquire mobile device internal memory and review data containing GPS longitude and latitude coordinates.
Assertions:	SPT-AO-44 If the cellular forensic tool supports acquisition of GPS data then the tool shall present the user with the longitude and latitude coordinates for all GPS-related data in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Tue Sep 18 14:35:11 EDT 2012
Device:	iPhone4_CDMA
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Tue Sep 18 14:35:11 EDT 2012 Acquisition finished: Tue Sep 18 14:40:34 EDT 2012 GPS Coordinate data was successfully acquired
Results:	**Assertion & Expected Result** / **Actual Result** SPT-AO-44 Acquire data, check GPS data for consistency. / as expected
Analysis:	Expected results achieved

5.2.35 SPT-01 (iPhone 3.1.2)

Test Case SPT-01 Lantern v2.3	
Case Summary:	SPT-01 Acquire mobile device internal memory over tool-supported interfaces (e.g., cable, Bluetooth, IrDA).
Assertions:	SPT-CA-01 If a cellular forensic tool provides support for connectivity of the target device then the tool shall successfully recognize the target device via all vendor supported interfaces (e.g., cable, Bluetooth, IrDA). SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview pane or generated report. SPT-CA-29 If a cellular forensic tool provides the user with an “Acquire All” device data objects acquisition option then the tool shall complete the acquisition of all data objects without error. SPT-CA-30 If a cellular forensic tool provides the user with a “Select All” individual device data objects then the tool shall complete the acquisition of all individually selected data objects without error. SPT-CA-31 If a cellular forensic tool provides the user with the ability to “Select Individual” device data objects for acquisition then the tool shall acquire each exclusive data object without error. SPT-CA-32 If a cellular forensic tool completes two consecutive logical acquisitions of the target device without error then the payload (data objects) on the mobile device shall remain consistent.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 07:38:46 EDT 2012
Device:	iPhone_3.1.2
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 07:38:46 EDT 2012 Acquisition finished: Wed Sep 19 07:45:58 EDT 2012 Device connectivity was established via supported interface

Test Case SPT-01 Lantern v2.3	
Results:	

Assertion & Expected Result	Actual Result
SPT-CA-01 Device connectivity via supported interfaces.	as expected
SPT-CA-04 Readability and completeness of acquired data via supported reports.	as expected
SPT-CA-29 Acquire-All data objects acquisition.	as expected
SPT-CA-30 Select-All data objects acquisition.	as expected
SPT-CA-31 Select-Individual data objects acquisition.	as expected
SPT-CA-32 Perform back-to-back acquisitions, check device payload for modifications.	as expected

Analysis:	Expected results achieved

5.2.36 SPT-02 (iPhone 3.1.2)

Test Case SPT-02 Lantern v2.3	
Case Summary:	SPT-02 Attempt internal memory acquisition of a nonsupported mobile device.
Assertions:	SPT-CA-02 If a cellular forensic tool attempts to connect to a nonsupported device then the tool shall notify the user that the device is not supported.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 07:59:19 EDT 2012
Device:	unsupported_device
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 07:59:19 EDT 2012 Acquisition finished: Wed Sep 19 08:01:57 EDT 2012 Identification of nonsupported devices was not successful **Notes**: Acquisition of nonsupported devices (i.e., iPod Nano) did not provide an error message stating the device was not supported.
Results:	

Assertion & Expected Result	Actual Result
SPT-CA-02 Identification of nonsupported devices.	Not as expected

Analysis:	Expected results not achieved

5.2.37 SPT-03 (iPhone 3.1.2)

Test Case SPT-03 Lantern v2.3	
Case Summary:	SPT-03 Begin mobile device internal memory acquisition and interrupt connectivity by interface disengagement.
Assertions:	SPT-CA-03 If connectivity between the mobile device and cellular forensic tool is disrupted then the tool shall notify the user that connectivity has been disrupted.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 08:11:06 EDT 2012
Device:	iPhone_3.1.2
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable

Test Case SPT-03 Lantern v2.3	
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 08:11:06 EDT 2012 Acquisition finished: Wed Sep 19 08:12:51 EDT 2012 Device acquisition disruption notification was successful
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-03 Notification of device acquisition disruption. / as expected
Analysis:	Expected results achieved

5.2.38 SPT-04 (iPhone 3.1.2)

Test Case SPT-04 Lantern v2.3	
Case Summary:	SPT-04 Acquire mobile device internal memory and review reported data via the preview pane or generated reports for readability.
Assertions:	SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview pane or generated report.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 08:13:52 EDT 2012
Device:	iPhone_3.1.2
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 08:13:52 EDT 2012 Acquisition finished: Wed Sep 19 08:15:18 EDT 2012 Readability and completeness of acquired data was successful
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-04 Readability and completeness of acquired data via supported reports. / as expected
Analysis:	Expected results achieved

5.2.39 SPT-05 (iPhone 3.1.2)

Test Case SPT-05 Lantern v2.3	
Case Summary:	SPT-05 Acquire mobile device internal memory and review reported subscriber and equipment related information (e.g., IMEI/MEID/ESN, MSISDN).
Assertions:	SPT-CA-05 If a cellular forensic tool completes acquisition of the target device without error then subscriber-related information shall be presented in a useable format. SPT-CA-06 If a cellular forensic tool completes acquisition of the target device without error then equipment related information shall be presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 08:16:13 EDT 2012
Device:	iPhone_3.1.2
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable

Test Case SPT-05 Lantern v2.3	
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 08:16:13 EDT 2012 Acquisition finished: Wed Sep 19 08:17:04 EDT 2012 Subscriber and Equipment related data (i.e., MSISDN, IMEI) were acquired
Results:	

Assertion & Expected Result	Actual Result
SPT-CA-05 Acquisition of MSISDN, IMSI.	as expected
SPT-CA-06 Acquisition of IMEI/MEID/ESN.	as expected

Analysis:	Expected results achieved

5.2.40 SPT-06 (iPhone 3.1.2)

Test Case SPT-06 Lantern v2.3	
Case Summary:	SPT-06 Acquire mobile device internal memory and review reported PIM related data.
Assertions:	SPT-CA-07 If a cellular forensic tool completes acquisition of the target device without error then address book entries shall be presented in a useable format. SPT-CA-08 If a cellular forensic tool completes acquisition of the target device without error then maximum length address book entries shall be presented in a useable format. SPT-CA-09 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing special characters shall be presented in a useable format. SPT-CA-10 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing blank names shall be presented in a useable format. SPT-CA-11 If a cellular forensic tool completes acquisition of the target device without error then email addresses associated with address book entries shall be presented in a useable format. SPT-CA-12 If a cellular forensic tool completes acquisition of the target device without error then graphics associated with address book entries shall be presented in a useable format. SPT-CA-13 If a cellular forensic tool completes acquisition of the target device without error then datebook, calendar, note entries shall be presented in a useable format. SPT-CA-14 If a cellular forensic tool completes acquisition of the target device without error then maximum length datebook, calendar, note entries shall be presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 08:17:40 EDT 2012
Device:	iPhone_3.1.2
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 08:17:40 EDT 2012 Acquisition finished: Wed Sep 19 08:19:02 EDT 2012 Regular Length Address Book entries were acquired Maximum Length Address Book entries were not acquired Special Character Address Book entries were acquired Blank Name Address Book entries were acquired Email addresses within Address Book entries were acquired Embedded graphics within Address Book entries were acquired ALL PIM related data was acquired **Notes**: Contact entries containing middle names only reported the first and last name.

Test Case SPT-06 Lantern v2.3	
Results:	

Assertion & Expected Result	Actual Result
SPT-CA-07 Acquisition of address book entries.	as expected
SPT-CA-08 Acquisition of maximum length address book entries.	Not as expected
SPT-CA-09 Acquisition of address book entries containing special characters.	as expected
SPT-CA-10 Acquisition of address book entries containing a blank name entry.	as expected
SPT-CA-11 Acquisition of embedded email addresses within address book entries.	as expected
SPT-CA-12 Acquisition of embedded graphics within address book entries.	as expected
SPT-CA-13 Acquisition of PIM data (i.e., datebook/calendar, notes).	as expected
SPT-CA-14 Acquisition of maximum length PIM data.	as expected

Analysis:	Partial results achieved

5.2.41 SPT-07 (iPhone 3.1.2)

Test Case SPT-07 Lantern v2.3	
Case Summary:	SPT-07 Acquire mobile device internal memory and review reported call logs.
Assertions:	SPT-CA-15 If a cellular forensic tool completes acquisition of the target device without error then call logs (incoming/outgoing/missed) shall be presented in a useable format. SPT-CA-16 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps and the duration of the call for call logs shall be presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 08:21:26 EDT 2012
Device:	iPhone_3.1.2
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 08:21:26 EDT 2012 Acquisition finished: Wed Sep 19 08:22:37 EDT 2012 All Call Logs (incoming, outgoing, missed) were acquired All Call Log date/time stamps data were correctly reported
Results:	

Assertion & Expected Result	Actual Result
SPT-CA-15 Acquisition of call logs.	as expected
SPT-CA-16 Acquisition of call log date/time stamps.	as expected

Analysis:	Expected results achieved

5.2.42 SPT-08 (iPhone 3.1.2)

Test Case SPT-08 Lantern v2.3	
Case Summary:	SPT-08 Acquire mobile device internal memory and review reported text messages.
Assertions:	SPT-CA-17 If a cellular forensic tool completes acquisition of the target device without error then ASCII text messages (i.e., SMS, EMS) shall be presented in a useable format. SPT-CA-18 If a cellular forensic tool completes acquisition of the target

<table>
<tr><th colspan="2">Test Case SPT-08 Lantern v2.3</th></tr>
<tr><td></td><td>device without error then the corresponding date/time stamps for text messages shall be presented in a useable format.
SPT-CA-19 If a cellular forensic tool completes acquisition of the target device without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format.
SPT-CA-20 If a cellular forensic tool completes acquisition of the target device without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Wed Sep 19 08:29:26 EDT 2012</td></tr>
<tr><td>Device:</td><td>iPhone_3.1.2</td></tr>
<tr><td>Source Setup:</td><td>OS: Mac OS X v10.6.8
Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by Lantern v2.3
Acquisition started: Wed Sep 19 08:29:26 EDT 2012
Acquisition finished: Wed Sep 19 08:30:43 EDT 2012

ALL text messages (SMS, EMS) were acquired
Correct date/time stamps were reported for all text messages
Correct status flags were reported for all text messages
Sender and Recipient phone numbers associated with text messages were correctly reported</td></tr>
<tr><td>Results:</td><td>
<table>
<tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr>
<tr><td>SPT-CA-17 Acquisition of text messages.</td><td>as expected</td></tr>
<tr><td>SPT-CA-18 Acquisition of text message date/time stamps.</td><td>as expected</td></tr>
<tr><td>SPT-CA-19 Acquisition of text message status flags.</td><td>as expected</td></tr>
<tr><td>SPT-CA-20 Acquisition of sender/recipient phone number associated with text messages.</td><td>as expected</td></tr>
</table>
</td></tr>
<tr><td>Analysis:</td><td>Expected results achieved</td></tr>
</table>

5.2.43 SPT-09 (iPhone 3.1.2)

<table>
<tr><th colspan="2">Test Case SPT-09 Lantern v2.3</th></tr>
<tr><td>Case Summary:</td><td>SPT-09 Acquire mobile device internal memory and review reported MMS multi-media related data (i.e., text, audio, graphics, video).</td></tr>
<tr><td>Assertions:</td><td>SPT-CA-21 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated audio shall be presented in a useable format.
SPT-CA-22 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated graphic files shall be presented in a useable format.
SPT-CA-23 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated video shall be presented in a useable format.</td></tr>
<tr><td>Tester Name:</td><td>rpa</td></tr>
<tr><td>Test Host:</td><td>p630542</td></tr>
<tr><td>Test Date:</td><td>Wed Sep 19 08:31:29 EDT 2012</td></tr>
<tr><td>Device:</td><td>iPhone_3.1.2</td></tr>
<tr><td>Source Setup:</td><td>OS: Mac OS X v10.6.8
Interface: cable</td></tr>
<tr><td>Log Highlights:</td><td>Created by Lantern v2.3
Acquisition started: Wed Sep 19 08:31:29 EDT 2012
Acquisition finished: Wed Sep 19 08:32:40 EDT 2012

ALL MMS messages (Audio, Image, Video) were acquired</td></tr>
<tr><td>Results:</td><td></td></tr>
</table>

Test Case SPT-09 Lantern v2.3	
	Assertion & Expected Result / **Actual Result** SPT-CA-21 Acquisition of audio MMS messages. / as expected SPT-CA-22 Acquisition of graphic data image MMS messages. / as expected SPT-CA-23 Acquisition of video MMS messages. / as expected
Analysis:	Expected results achieved

5.2.44 SPT-10 (iPhone 3.1.2)

Test Case SPT-10 Lantern v2.3	
Case Summary:	SPT-10 Acquire mobile device internal memory and review reported stand-alone multi-media data (i.e., audio, graphics, video).
Assertions:	SPT-CA-24 If a cellular forensic tool completes acquisition of the target device without error then stand-alone audio files shall be presented in a useable format via either an internal application or suggested third-party application. SPT-CA-25 If a cellular forensic tool completes acquisition of the target device without error then stand-alone graphic files shall be presented in a useable format via either an internal application or suggested third-party application. SPT-CA-26 If a cellular forensic tool completes acquisition of the target device without error then stand-alone video files shall be presented in a useable format via either an internal application or suggested third-party application.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 08:33:23 EDT 2012
Device:	iPhone_3.1.2
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 08:33:23 EDT 2012 Acquisition finished: Wed Sep 19 08:34:42 EDT 2012 ALL stand-alone data files (Audio, Image, Video) were acquired
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-24 Acquisition of stand-alone audio files. / as expected SPT-CA-25 Acquisition of stand-alone graphic files. / as expected SPT-CA-26 Acquisition of stand-alone video files. / as expected
Analysis:	Expected results achieved

5.2.45 SPT-12 (iPhone 3.1.2)

Test Case SPT-12 Lantern v2.3	
Case Summary:	SPT-12 Acquire mobile device internal memory and review Internet related data (i.e., bookmarks, visited sites.
Assertions:	SPT-CA-28 If a cellular forensic tool completes acquisition of the target device without error then Internet related data (i.e., bookmarks, visited sites) cached to the device shall be acquired and presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 08:36:26 EDT 2012

Test Case SPT-12 Lantern v2.3	
Device:	iPhone_3.1.2
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 08:36:26 EDT 2012 Acquisition finished: Wed Sep 19 08:39:26 EDT 2012 Partial Internet related data was acquired **Notes**: Internet Bookmarks were not reported
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-28 Acquisition of Internet related data. / Not as expected
Analysis:	Expected results not achieved

5.2.46 SPT-13 (iPhone 3.1.2)

Test Case SPT-13 Lantern v2.3	
Case Summary:	SPT-13 Acquire mobile device internal memory by selecting a combination of supported data elements.
Assertions:	SPT-CA-29 If a cellular forensic tool provides the user with an “Acquire All” device data objects acquisition option then the tool shall complete the acquisition of all data objects without error. SPT-CA-30 If a cellular forensic tool provides the user with an “Select All” individual device data objects then the tool shall complete the acquisition of all individually selected data objects without error. SPT-CA-31 If a cellular forensic tool provides the user with the ability to “Select Individual” device data objects for acquisition then the tool shall acquire each exclusive data object without error.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 08:40:34 EDT 2012
Device:	iPhone_3.1.2
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 08:40:34 EDT 2012 Acquisition finished: Wed Sep 19 08:42:10 EDT 2012 Acquire All acquisition was successful
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-29 Acquire-All data objects acquisition. / as expected SPT-CA-30 Select-All data objects acquisition. / as expected SPT-CA-31 Select-Individual data objects acquisition. / as expected
Analysis:	Expected results achieved

5.2.47 SPT-24 (iPhone 3.1.2)

Test Case SPT-24 Lantern v2.3	
Case Summary:	SPT-24 Acquire mobile device internal memory and review reported data via supported generated report formats.
Assertions:	SPT-AO-25 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format via supported generated report formats.

Test Case SPT-24 Lantern v2.3	
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 08:42:45 EDT 2012
Device:	iPhone_3.1.2
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 08:42:45 EDT 2012 Acquisition finished: Wed Sep 19 08:45:19 EDT 2012 Complete representation of known data via generated reports was successful
Results:	**Assertion & Expected Result** / **Actual Result** SPT-AO-25 Comparison of known device data elements via generated reports. / as expected
Analysis:	Expected results achieved

5.2.48 SPT-25 (iPhone 3.1.2)

Test Case SPT-25 Lantern v2.3	
Case Summary:	SPT-25 Acquire mobile device internal memory and review reported data via the preview pane.
Assertions:	SPT-AO-26 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format in a preview pane view.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 08:43:11 EDT 2012
Device:	iPhone_3.1.2
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 08:43:11 EDT 2012 Acquisition finished: Wed Sep 19 08:45:35 EDT 2012 Complete representation of known data via preview pane was successful
Results:	**Assertion & Expected Result** / **Actual Result** SPT-AO-26 Comparison of known device data elements via preview-pane. / as expected
Analysis:	Expected results achieved

5.2.49 SPT-33 (iPhone 3.1.2)

Test Case SPT-33 Lantern v2.3	
Case Summary:	SPT-33 Acquire mobile device internal memory and review data containing non-ASCII characters.
Assertions:	SPT-AO-40 If the cellular forensic tool supports display of non-ASCII characters then the application should present address book entries in their native format. SPT-AO-41 If the cellular forensic tool supports proper display of non-ASCII characters then the application should present text messages in their native format.

Test Case SPT-33 Lantern v2.3	
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 08:46:52 EDT 2012
Device:	iPhone_3.1.2
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 08:46:52 EDT 2012 Acquisition finished: Wed Sep 19 08:48:16 EDT 2012 Non-ASCII Address book entries were acquired and properly displayed Non-ASCII text messages were acquired and properly displayed
Results:	

Assertion & Expected Result	Actual Result
SPT-AO-40 Acquisition of non-ASCII address book entries/ADNs.	as expected
SPT-AO-41 Acquisition of non-ASCII text messages.	as expected

Analysis:	Expected results achieved

5.2.50 SPT-38 (iPhone 3.1.2)

Test Case SPT-38 Lantern v2.3	
Case Summary:	SPT-38 Acquire mobile device internal memory and review hash values for vendor supported data objects.
Assertions:	SPT-AO-43 If the cellular forensic tool supports hashing for individual data objects then the tool shall present the user with a hash value for each supported data object.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 08:49:02 EDT 2012
Device:	iPhone_3.1.2
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 08:49:02 EDT 2012 Acquisition finished: Wed Sep 19 08:51:59 EDT 2012 Hash values were properly reported for individually acquired device data elements
Results:	

Assertion & Expected Result	Actual Result
SPT-AO-43 Acquire data, check known hash values for consistency.	as expected

Analysis:	Expected results achieved

5.2.51 SPT-40 (iPhone 3.1.2)

Test Case SPT-40 Lantern v2.3	
Case Summary:	SPT-40 Acquire mobile device internal memory and review data containing GPS longitude and latitude coordinates.
Assertions:	SPT-AO-44 If the cellular forensic tool supports acquisition of GPS data then the tool shall present the user with the longitude and latitude

Test Case SPT-40 Lantern v2.3	
	coordinates for all GPS-related data in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 08:49:25 EDT 2012
Device:	iPhone_3.1.2
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 08:49:25 EDT 2012 Acquisition finished: Wed Sep 19 08:52:20 EDT 2012 GPS Coordinate data was successfully acquired
Results:	

Assertion & Expected Result	Actual Result
SPT-AO-44 Acquire data, check GPS data for consistency.	as expected

Analysis:	Expected results achieved

5.2.52 SPT-01 (iPhone 3.1.3)

Test Case SPT-01 Lantern v2.3	
Case Summary:	SPT-01 Acquire mobile device internal memory over tool-supported interfaces (e.g., cable, Bluetooth, IrDA).
Assertions:	SPT-CA-01 If a cellular forensic tool provides support for connectivity of the target device then the tool shall successfully recognize the target device via all vendor supported interfaces (e.g., cable, Bluetooth, IrDA). SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview pane or generated report. SPT-CA-29 If a cellular forensic tool provides the user with an “Acquire All” device data objects acquisition option then the tool shall complete the acquisition of all data objects without error. SPT-CA-30 If a cellular forensic tool provides the user with a “Select All” individual device data objects then the tool shall complete the acquisition of all individually selected data objects without error. SPT-CA-31 If a cellular forensic tool provides the user with the ability to “Select Individual” device data objects for acquisition then the tool shall acquire each exclusive data object without error. SPT-CA-32 If a cellular forensic tool completes two consecutive logical acquisitions of the target device without error then the payload (data objects) on the mobile device shall remain consistent.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 09:03:37 EDT 2012
Device:	iPhone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 09:03:37 EDT 2012 Acquisition finished: Wed Sep 19 09:06:32 EDT 2012 Device connectivity was established via supported interface
Results:	

Assertion & Expected Result	Actual Result
SPT-CA-01 Device connectivity via supported interfaces.	as expected
SPT-CA-04 Readability and completeness of acquired data via supported reports.	as expected

Test Case SPT-01 Lantern v2.3		
	SPT-CA-29 Acquire-All data objects acquisition.	as expected
	SPT-CA-30 Select-All data objects acquisition.	as expected
	SPT-CA-31 Select-Individual data objects acquisition.	as expected
	SPT-CA-32 Perform back-to-back acquisitions, check device payload for modifications.	as expected
Analysis:	Expected results achieved	

5.2.53 SPT-02 (iPhone 3.1.3)

Test Case SPT-02 Lantern v2.3	
Case Summary:	SPT-02 Attempt internal memory acquisition of a nonsupported mobile device.
Assertions:	SPT-CA-02 If a cellular forensic tool attempts to connect to a nonsupported device then the tool shall notify the user that the device is not supported.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 09:07:14 EDT 2012
Device:	iPhone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 09:07:14 EDT 2012 Acquisition finished: Wed Sep 19 09:10:46 EDT 2012 Identification of nonsupported devices was not successful **Notes**: Acquisition of nonsupported devices (i.e., iPod Nano) did not provide an error message stating the device was not supported.
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-02 Identification of nonsupported devices. / Not as expected
Analysis:	Expected results not achieved

5.2.54 SPT-03 (iPhone 3.1.3)

Test Case SPT-03 Lantern v2.3	
Case Summary:	SPT-03 Begin mobile device internal memory acquisition and interrupt connectivity by interface disengagement.
Assertions:	SPT-CA-03 If connectivity between the mobile device and cellular forensic tool is disrupted then the tool shall notify the user that connectivity has been disrupted.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 09:12:34 EDT 2012
Device:	lantern_iphone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 09:12:34 EDT 2012 Acquisition finished: Wed Sep 19 09:14:46 EDT 2012 Device acquisition disruption notification was successful
Results:	**Assertion & Expected Result** / **Actual Result**

Test Case SPT-03 Lantern v2.3	
	SPT-CA-03 Notification of device acquisition disruption. | as expected
Analysis:	Expected results achieved

5.2.55 SPT-04 (iPhone 3.1.3)

Test Case SPT-04 Lantern v2.3	
Case Summary:	SPT-04 Acquire mobile device internal memory and review reported data via the preview pane or generated reports for readability.
Assertions:	SPT-CA-04 If a cellular forensic tool completes acquisition of the target device without error then the tool shall have the ability to present acquired data objects in a useable format via either a preview pane or generated report.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 09:26:14 EDT 2012
Device:	iPhone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 09:26:14 EDT 2012 Acquisition finished: Wed Sep 19 09:32:09 EDT 2012 Readability and completeness of acquired data was successful
Results:	**Assertion & Expected Result** | **Actual Result** SPT-CA-04 Readability and completeness of acquired data via supported reports. | as expected
Analysis:	Expected results achieved

5.2.56 SPT-05 (iPhone 3.1.3)

Test Case SPT-05 Lantern v2.3	
Case Summary:	SPT-05 Acquire mobile device internal memory and review reported subscriber and equipment related information (e.g., IMEI/MEID/ESN, MSISDN).
Assertions:	SPT-CA-05 If a cellular forensic tool completes acquisition of the target device without error then subscriber-related information shall be presented in a useable format. SPT-CA-06 If a cellular forensic tool completes acquisition of the target device without error then equipment related information shall be presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 09:33:16 EDT 2012
Device:	iPhone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 09:33:16 EDT 2012 Acquisition finished: Wed Sep 19 09:36:08 EDT 2012 Subscriber and Equipment related data (i.e., MSISDN, IMEI) were acquired
Results:	

Test Case SPT-05 Lantern v2.3	
	Assertion & Expected Result / **Actual Result** SPT-CA-05 Acquisition of MSISDN, IMSI. — as expected SPT-CA-06 Acquisition of IMEI/MEID/ESN. — as expected
Analysis:	Expected results achieved

5.2.57 SPT-06 (iPhone 3.1.3)

Test Case SPT-06 Lantern v2.3	
Case Summary:	SPT-06 Acquire mobile device internal memory and review reported PIM related data.
Assertions:	SPT-CA-07 If a cellular forensic tool completes acquisition of the target device without error then address book entries shall be presented in a useable format. SPT-CA-08 If a cellular forensic tool completes acquisition of the target device without error then maximum length address book entries shall be presented in a useable format. SPT-CA-09 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing special characters shall be presented in a useable format. SPT-CA-10 If a cellular forensic tool completes acquisition of the target device without error then address book entries containing blank names shall be presented in a useable format. SPT-CA-11 If a cellular forensic tool completes acquisition of the target device without error then email addresses associated with address book entries shall be presented in a useable format. SPT-CA-12 If a cellular forensic tool completes acquisition of the target device without error then graphics associated with address book entries shall be presented in a useable format. SPT-CA-13 If a cellular forensic tool completes acquisition of the target device without error then datebook, calendar, note entries shall be presented in a useable format. SPT-CA-14 If a cellular forensic tool completes acquisition of the target device without error then maximum length datebook, calendar, note entries shall be presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 09:36:40 EDT 2012
Device:	iPhone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 09:36:40 EDT 2012 Acquisition finished: Wed Sep 19 09:39:09 EDT 2012 Regular Length Address Book entries were acquired Maximum Length Address Book entries were not acquired Special Character Address Book entries were acquired Blank Name Address Book entries were acquired Email addresses within Address Book entries were acquired Embedded graphics within Address Book entries were acquired ALL PIM related data was acquired **Notes**: Contact entries containing middle names only reported the first and last name.
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-07 Acquisition of address book entries. — as expected SPT-CA-08 Acquisition of maximum length address book entries. — Not as expected SPT-CA-09 Acquisition of address book entries containing — as expected

Test Case SPT-06 Lantern v2.3	
	special characters. |
	SPT-CA-10 Acquisition of address book entries containing a blank name entry. | as expected
	SPT-CA-11 Acquisition of embedded email addresses within address book entries. | as expected
	SPT-CA-12 Acquisition of embedded graphics within address book entries. | as expected
	SPT-CA-13 Acquisition of PIM data (i.e., datebook/calendar, notes). | as expected
	SPT-CA-14 Acquisition of maximum length PIM data. | as expected
Analysis:	Partial results achieved

5.2.58 SPT-07 (iPhone 3.1.3)

Test Case SPT-07 Lantern v2.3	
Case Summary:	SPT-07 Acquire mobile device internal memory and review reported call logs.
Assertions:	SPT-CA-15 If a cellular forensic tool completes acquisition of the target device without error then call logs (incoming/outgoing/missed) shall be presented in a useable format. SPT-CA-16 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps and the duration of the call for call logs shall be presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 09:41:05 EDT 2012
Device:	iPhone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 09:41:05 EDT 2012 Acquisition finished: Wed Sep 19 09:53:16 EDT 2012 All Call Logs (incoming, outgoing, missed) were acquired All Call Log date/time stamps data were correctly reported
Results:	**Assertion & Expected Result** | **Actual Result** SPT-CA-15 Acquisition of call logs. | as expected SPT-CA-16 Acquisition of call log date/time stamps. | as expected
Analysis:	Expected results achieved

5.2.59 SPT-08 (iPhone 3.1.3)

Test Case SPT-08 Lantern v2.3	
Case Summary:	SPT-08 Acquire mobile device internal memory and review reported text messages.
Assertions:	SPT-CA-17 If a cellular forensic tool completes acquisition of the target device without error then ASCII text messages (i.e., SMS, EMS) shall be presented in a useable format. SPT-CA-18 If a cellular forensic tool completes acquisition of the target device without error then the corresponding date/time stamps for text messages shall be presented in a useable format. SPT-CA-19 If a cellular forensic tool completes acquisition of the target device without error then the corresponding status (i.e., read, unread) for text messages shall be presented in a useable format. SPT-CA-20 If a cellular forensic tool completes acquisition of the target device without error then the corresponding sender / recipient phone numbers for text messages shall be presented in a useable format.

Test Case SPT-08 Lantern v2.3	
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 09:41:27 EDT 2012
Device:	iPhone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 09:41:27 EDT 2012 Acquisition finished: Wed Sep 19 09:53:58 EDT 2012 ALL text messages (SMS, EMS) were acquired Correct date/time stamps were reported for all text messages Correct status flags were reported for all text messages Sender and Recipient phone numbers associated with text messages were correctly reported
Results:	

Assertion & Expected Result	Actual Result
SPT-CA-17 Acquisition of text messages.	as expected
SPT-CA-18 Acquisition of text message date/time stamps.	as expected
SPT-CA-19 Acquisition of text message status flags.	as expected
SPT-CA-20 Acquisition of sender/recipient phone number associated with text messages.	as expected

Analysis:	Expected results achieved

5.2.60 SPT-09 (iPhone 3.1.3)

Test Case SPT-09 Lantern v2.3	
Case Summary:	SPT-09 Acquire mobile device internal memory and review reported MMS multi-media related data (i.e., text, audio, graphics, video).
Assertions:	SPT-CA-21 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated audio shall be presented in a useable format. SPT-CA-22 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated graphic files shall be presented in a useable format. SPT-CA-23 If a cellular forensic tool completes acquisition of the target device without error then MMS messages and associated video shall be presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 09:41:50 EDT 2012
Device:	iPhone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 09:41:50 EDT 2012 Acquisition finished: Wed Sep 19 09:54:25 EDT 2012 ALL MMS messages (Audio, Image, Video) were acquired
Results:	

Assertion & Expected Result	Actual Result
SPT-CA-21 Acquisition of audio MMS messages.	as expected
SPT-CA-22 Acquisition of graphic data image MMS messages.	as expected
SPT-CA-23 Acquisition of video MMS messages.	as expected

Test Case SPT-09 Lantern v2.3	
Analysis:	Expected results achieved

5.2.61 SPT-10 (iPhone 3.1.3)

Test Case SPT-10 Lantern v2.3	
Case Summary:	SPT-10 Acquire mobile device internal memory and review reported stand-alone multi-media data (i.e., audio, graphics, video).
Assertions:	SPT-CA-24 If a cellular forensic tool completes acquisition of the target device without error then stand-alone audio files shall be presented in a useable format via either an internal application or suggested third-party application. SPT-CA-25 If a cellular forensic tool completes acquisition of the target device without error then stand-alone graphic files shall be presented in a useable format via either an internal application or suggested third-party application. SPT-CA-26 If a cellular forensic tool completes acquisition of the target device without error then stand-alone video files shall be presented in a useable format via either an internal application or suggested third-party application.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 09:42:17 EDT 2012
Device:	iPhone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 09:42:17 EDT 2012 Acquisition finished: Wed Sep 19 09:54:42 EDT 2012 ALL stand-alone data files (Audio, Image, Video) were acquired
Results:	**Assertion & Expected Result** / **Actual Result** SPT-CA-24 Acquisition of stand-alone audio files. / as expected SPT-CA-25 Acquisition of stand-alone graphic files. / as expected SPT-CA-26 Acquisition of stand-alone video files. / as expected
Analysis:	Expected results achieved

5.2.62 SPT-12 (iPhone 3.1.3)

Test Case SPT-12 Lantern v2.3	
Case Summary:	SPT-12 Acquire mobile device internal memory and review Internet related data (i.e., bookmarks, visited sites.
Assertions:	SPT-CA-28 If a cellular forensic tool completes acquisition of the target device without error then Internet related data (i.e., bookmarks, visited sites) cached to the device shall be acquired and presented in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 09:55:22 EDT 2012
Device:	iPhone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 09:55:22 EDT 2012 Acquisition finished: Wed Sep 19 10:00:25 EDT 2012

Test Case SPT-12 Lantern v2.3	
	Partial Internet related data was acquired **Notes**: Internet Bookmarks were not reported
Results:	<table><tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr><tr><td>SPT-CA-28 Acquisition of Internet related data.</td><td>Not as expected</td></tr></table>
Analysis:	Expected results not achieved

5.2.63 SPT-13 (iPhone 3.1.3)

Test Case SPT-13 Lantern v2.3	
Case Summary:	SPT-13 Acquire mobile device internal memory by selecting a combination of supported data elements.
Assertions:	SPT-CA-29 If a cellular forensic tool provides the user with an “Acquire All” device data objects acquisition option then the tool shall complete the acquisition of all data objects without error. SPT-CA-30 If a cellular forensic tool provides the user with an “Select All” individual device data objects then the tool shall complete the acquisition of all individually selected data objects without error. SPT-CA-31 If a cellular forensic tool provides the user with the ability to “Select Individual” device data objects for acquisition then the tool shall acquire each exclusive data object without error.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 10:01:23 EDT 2012
Device:	iPhone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 10:01:23 EDT 2012 Acquisition finished: Wed Sep 19 10:04:17 EDT 2012 Acquire All acquisition was successful
Results:	<table><tr><th>Assertion & Expected Result</th><th>Actual Result</th></tr><tr><td>SPT-CA-29 Acquire-All data objects acquisition.</td><td>as expected</td></tr><tr><td>SPT-CA-30 Select-All data objects acquisition.</td><td>as expected</td></tr><tr><td>SPT-CA-31 Select-Individual data objects acquisition.</td><td>as expected</td></tr></table>
Analysis:	Expected results achieved

5.2.64 SPT-24 (iPhone 3.1.3)

Test Case SPT-24 Lantern v2.3	
Case Summary:	SPT-24 Acquire mobile device internal memory and review reported data via supported generated report formats.
Assertions:	SPT-AO-25 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format via supported generated report formats.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 10:05:02 EDT 2012
Device:	iPhone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable

Test Case SPT-24 Lantern v2.3	
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 10:05:02 EDT 2012 Acquisition finished: Wed Sep 19 10:17:31 EDT 2012 Complete representation of known data via generated reports was successful
Results:	**Assertion & Expected Result** / **Actual Result** SPT-AO-25 Comparison of known device data elements via generated reports. / as expected
Analysis:	Expected results achieved

5.2.65 SPT-25 (iPhone 3.1.3)

Test Case SPT-25 Lantern v2.3	
Case Summary:	SPT-25 Acquire mobile device internal memory and review reported data via the preview pane.
Assertions:	SPT-AO-26 If a cellular forensic tool completes acquisition of the target device without error then the tool shall present the acquired data in a useable format in a preview pane view.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 10:05:45 EDT 2012
Device:	iPhone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 10:05:45 EDT 2012 Acquisition finished: Wed Sep 19 10:17:59 EDT 2012 Complete representation of known data via preview pane was successful
Results:	**Assertion & Expected Result** / **Actual Result** SPT-AO-26 Comparison of known device data elements via preview-pane. / as expected
Analysis:	Expected results achieved

5.2.66 SPT-33 (iPhone 3.1.3)

Test Case SPT-33 Lantern v2.3	
Case Summary:	SPT-33 Acquire mobile device internal memory and review data containing non-ASCII characters.
Assertions:	SPT-AO-40 If the cellular forensic tool supports display of non-ASCII characters then the application should present address book entries in their native format. SPT-AO-41 If the cellular forensic tool supports proper display of non-ASCII characters then the application should present text messages in their native format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 10:06:17 EDT 2012
Device:	iPhone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable

Test Case SPT-33 Lantern v2.3	
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 10:06:17 EDT 2012 Acquisition finished: Wed Sep 19 10:18:17 EDT 2012 Non-ASCII Address book entries were acquired and properly displayed Non-ASCII text messages were acquired and properly displayed
Results:	

Assertion & Expected Result	Actual Result
SPT-AO-40 Acquisition of non-ASCII address book entries/ADNs.	as expected
SPT-AO-41 Acquisition of non-ASCII text messages.	as expected

Analysis:	Expected results achieved

5.2.67 SPT-38 (iPhone 3.1.3)

Test Case SPT-38 Lantern v2.3	
Case Summary:	SPT-38 Acquire mobile device internal memory and review hash values for vendor supported data objects.
Assertions:	SPT-AO-43 If the cellular forensic tool supports hashing for individual data objects then the tool shall present the user with a hash value for each supported data object.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 10:06:49 EDT 2012
Device:	iPhone_3.1.3
Source Setup:	OS: Mac OS X v10.6.8 Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 10:06:49 EDT 2012 Acquisition finished: Wed Sep 19 10:18:55 EDT 2012 Hash values were properly reported for individually acquired device data elements
Results:	

Assertion & Expected Result	Actual Result
SPT-AO-43 Acquire data, check known hash values for consistency.	as expected

Analysis:	Expected results achieved

5.2.68 SPT-40 (iPhone 3.1.3)

Test Case SPT-40 Lantern v2.3	
Case Summary:	SPT-40 Acquire mobile device internal memory and review data containing GPS longitude and latitude coordinates.
Assertions:	SPT-AO-44 If the cellular forensic tool supports acquisition of GPS data then the tool shall present the user with the longitude and latitude coordinates for all GPS-related data in a useable format.
Tester Name:	rpa
Test Host:	p630542
Test Date:	Wed Sep 19 10:07:17 EDT 2012
Device:	iPhone_3.1.3
Source	OS: Mac OS X v10.6.8

Test Case SPT-40 Lantern v2.3	
Setup:	Interface: cable
Log Highlights:	Created by Lantern v2.3 Acquisition started: Wed Sep 19 10:07:17 EDT 2012 Acquisition finished: Wed Sep 19 10:19:11 EDT 2012 GPS Coordinate data was successfully acquired
Results:	**Assertion & Expected Result** / **Actual Result** SPT-AO-44 Acquire data, check GPS data for consistency. / as expected
Analysis:	Expected results achieved

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3. Develop affordable and effective tools and technologies to enhance the administration of justice and public safety.

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