



CELLEBRITE MOBILE FORENSICS FUNDAMENTALS (CMFF)

Mobile Forensics



Level

Entry/Beginner



Length

Two-Day (14 hours)



Training Track

Mobile Forensics
Investigative



Delivery Mode

In-Person
Self-Paced
Virtual

Course Description

Cellebrite Mobile Forensics Fundamentals (CMFF) is a two (2) day entry level course designed to provide attendees with compulsory digital forensics fundamental knowledge including: mobile device communication networks, explorations of Android and iOS file systems, extraction methodologies, memory (NAND) functions, and the proper handling of digital evidence for use in administrative, civil, or criminal actions. Attendees will learn the reasoning and strategies used by credible practitioners to form digital forensic best practices.

Course Learning Objectives

Upon successful completion of this course, students will be able to:

- Describe different mobile devices
- Describe digital forensic processes
- Discuss best practice when seizing devices
- Explore extracted device data
- Demonstrate proficiency by completing an exam with a minimum passing score of 80%

Important: Successful completion of this course is defined as the student being able to demonstrate proficiency in the Course Learning Objectives by passing a Final Exam assessment with a minimum score of 80.00% or higher to be awarded a Certificate of Completion.

INTRODUCTION



- Identify Cellebrite's global presence and accomplishments.
- Describe Cellebrite's core training and certification process.
- Review the capabilities engineered in Cellebrite platforms and digital forensic solutions.
- Identify the learning objectives related to the course or training product.
- Discuss a practitioner's legal responsibilities using Cellebrite products, software, and services.

INTRODUCTION TO MOBILE DEVICES



- Correctly identify mobile device hardware
- Identify mobile device operating systems
- Discuss mobile device communication technology
- Describe the effects of evolving technology on the mobile digital forensics industry
- Recount a historical overview of the Apples iOS operating system platform
- Discuss the value of Apple iOS devices to investigators
- Examine mobile device and internet of things (IoT) technologies of value in an investigation
- Explain the reasons influencing popularity of iOS devices and platform
- Recount a historical overview of the Android operating system platform
- Explain the reasons influencing popularity of Android devices and platforms
- Discuss the Android open-source Operating System and file system structure
- Discuss the value of Android devices to investigators
- Review the mobile communication network architecture and functions
- Explain the SIM file system organization

FORENSIC OVERVIEW PROCESS



- Describe and explore digital forensic media sterilization.
- Explain the four phases of the digital forensics process
- Recognize legal considerations for seizing and searching devices.
- Describe the first responder's role
- Describe the digital forensics practitioner's role
- Describe the importance for proper evidence handling and documentation.
- Relate the correct procedures for identifying and handling digital evidence devices as first responders.
- Identify investigative challenges that apply to the digital forensic processing of mobile devices.
- Identify tools and equipment needed to seize mobile devices as evidence.
- Recognize legal considerations for seizing and searching devices.
- Identify various locking mechanisms found on mobile devices.
- Demonstrate of the procedures used to seize mobile devices in a manner that preserves evidence integrity.
- Relate the different varieties of Android security features and complications the protection mechanisms present to examiners and investigators.
- Relate the different varieties of iOS security features and complications the protection mechanisms present to examiners and investigators.
- Describe the uses for UFED Camera Services.
- Relate the correct procedures for post-process handling of digital evidence devices.

EXTRACTION METHODOLOGIES



- Compare UFED 4PC Logical and Ultimate forensic solutions.
- Discuss the methods frequently employed by forensic examiners to acquire data from mobile devices.
- Identify best practices for the extraction of data from digital evidence devices.
- Describe the uses for UFED Camera Services.
- Review the value and use of hash values for evidence authentication.
- Modify UFED Touch2 and UFED 4 PC configurations for the extraction of different devices and investigative needs.
- Identify functions used within UFED Touch, UFED Touch 2 or UFED 4PC to perform supported data extractions.

DATA ENCODING AND STORAGE



- Describe data encoding schemes used by mobile devices to store information; including Binary, Hexadecimal, ASCII, and Unicode formats.
- Differentiate Wear Leveling and Garbage Collection as the functions influencing flash memory data.
- Identify basic flash storage characteristics and NAND organization

DETAIL CALL RECORDS



- Recall and apply basic call detail record terminology.
- Properly interpret call records.
- Define best practices for requesting CDRs.
- Identify recovered cellular provider data.
- Recognize practical usage of location-based data.
- Recall verification of location data with third party data sets.

FINAL EXAM



- Complete a knowledge-based exam practical skills assessment
- Evaluate the course components using the Feedback Survey.
- Download a Certificate of Attendance.
- Download a Certificate of Completion (if awarded)*.



Get skilled. Get certified.

"Every day around the world, digital data is impacting investigations. Making it intelligent and actionable is what Cellebrite does best. The Cellebrite Academy reflects our commitment to digital forensics excellence; training forensics examiners, analysts, investigators and prosecutors around the world to achieve a higher standard of professional competency and success."

Learn more at: cellebritelearningcenter.com



Cellebrite Mobile Forensics Fundamentals

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