NICE Challenge Project

Challenge Submission Report

https://portal.nice-challenge.com/reports/verify/A4906-EAFB-D8D9C/

Submission ID: 63061

Timestamp: 2/5/2022 2:00 AM UTC

Name: Winston Lee

Challenge ID: 117

Challenge Title: Digital Duplicates [NG]

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Scenario

Recently Gary Thatcher our senior system administrator, came across a thumb drive attached to an employee's system. According to the employee, the thumb drive was attached without their consent and they are unsure of the origin of said drive. The drive was passed to Ione Leventis one of our security analysts. Ione has attached the drive to our sheep-dip system which in our case is the Security-Desk machine. However, Ione was called away on other matters and you are now entrusted with the task. According to current company policy the thumb drive must be inspected for any malicious agents that could threaten DAS Web's overall security. Your job is to create a forensically sound duplicate image of the thumb drive using dd so it can be examined without the risk of inadvertently modifying potential evidence. SHA512 hashes should also be taken and compared between the original thumb drive which is already attached, but not mounted, to the system and the forensic image.

Duration

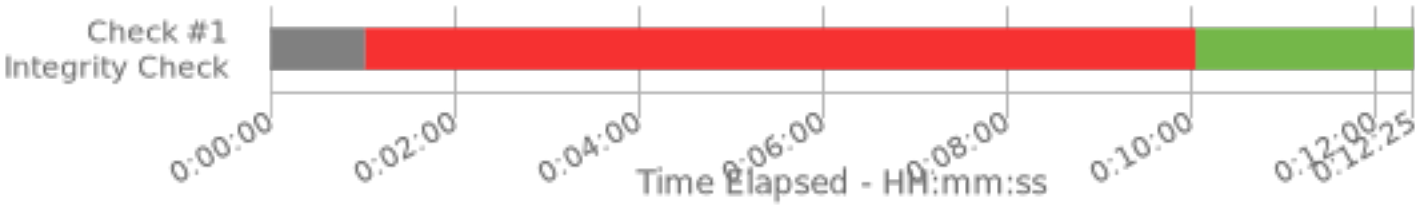
0:12

Final Check Details

Check #1: Forensic Image Created

Full Check Pass

Full: 1/1



Specialty Area

Digital Forensics

Work Role

Law Enforcement/CounterIntelligence Forensics

NICE Framework Task

T0048 Create a forensically sound duplicate of the evidence (i.e., forensic image) that ensures the original evidence is not unintentionally modified, to use for data recovery and analysis processes. This includes, but is not limited to, hard drives, floppy diskettes, CDs, PDAs, mobile phones, GPS, and all tape formats.

Knowledge, Skills, and Abilities

- K0017 Knowledge of concepts and practices of processing digital forensic data.
- K0021 Knowledge of data backup and recovery.
- K0042 Knowledge of incident response and handling methodologies.
- K0060 Knowledge of operating systems.
- K0117 Knowledge of file system implementations (e.g., New Technology File System [NTFS], File Allocation Table [FAT], File Extension [EXT]).
- K0118 Knowledge of processes for seizing and preserving digital evidence.
- K0122 Knowledge of investigative implications of hardware, Operating Systems, and network technologies.
- K0132 Knowledge of which system files (e.g., log files, registry files, configuration files) contain relevant information and where to find those system files.
- K0133 Knowledge of types of digital forensics data and how to recognize them.
- K0304 Knowledge of concepts and practices of processing digital forensic data.
- S0047 Skill in preserving evidence integrity according to standard operating procedures or national standards.
- S0065 Skill in identifying and extracting data of forensic interest in diverse media (i.e., media forensics).
- S0067 Skill in identifying, modifying, and manipulating applicable system components within Windows, Unix, or Linux (e.g., passwords, user accounts, files).
- S0073 Skill in using virtual machines. (e.g., Microsoft Hyper-V, VMWare vSphere, Citrix XenDesktop/Server, Amazon Elastic Compute Cloud, etc.).
- S0089 Skill in one-way hash functions (e.g., Secure Hash Algorithm [SHA], Message Digest Algorithm [MD5]).

Centers of Academic Excellence Knowledge Units

- Cybersecurity Principles
- Digital Forensics
- IT Systems Components
- Operating Systems Concepts