

USE CASE STUDIES

Summary

SmartPhone Triage is an innovative solution combining digital forensics and blockchain to collect mobile and cloud data. The tool has been focusing vigorously on the law enforcement agencies and corporate security departments as a whole.

The use cases of SmartPhone Triage in Taiwan, to name a few:

- National Immigration Agency
- Investigation Bureau, Ministry of Justice
- Telecommunications Investigation Corps, Criminal Investigation Bureau, National Police Agency



CASE STUDY 1:

Collecting Mobile Data On-the-spot

The Client: National Immigration Agency (hereinafter NIA), Taiwan's central competent authority in charge of the border control, immigration management, and human trafficking prevention.



Challenge

Responsible for maintaining border security, the frontline officers of NIA handle the affairs for hundreds of thousands of inbound and outbound passengers every day and they have strived to maintain a balance between efficiency and service. Driven by rapid globalization, management of illegal immigration, human trafficking prevention and anti-smuggling have become critical issues as well. Once suspicious passengers are spotted, officers from the Border Affairs Corps have to conduct the necessary inquiry and ID check immediately and collect related information. "Using hand-held video recorders to collect information is inefficient and time-consuming, so adopting effective processes has been a priority for us." said NIA officers.



Solution

As digital evidence is increasingly important, NIA had to choose a suitable forensics tool to collect the information from mobile or desktop devices on-the-spot. SmartPhone Triage was able to meet the frontline officers' needs with its unique blend of features, namely automatic scrolling/clicking, screen capture/recording and reports generation. It focuses on collecting information from chat apps, which are usually the main resources of vital evidence when it comes to trafficking in persons cases and other types of criminal activities with similar characteristics. SmartPhone Triage helps NIA to collect necessary information and secure the digital evidence timely and safely.



Results

Upon adopting SmartPhone Triage, NIA relieved some of the most notable concerns, including:

- Reduction in consumption of human resources: The easy-to-use software package fits all officers with different experience, expertise, background knowledge, etc.
- Shorter processing time from over 3 hours to 5-10 minutes to obtain the valid evidence and generate reports.

"We were able to collect the critical info from the target device and generate reports in 5 minutes, which just helped a lot to quickly close the case."

CASE STUDY 2:

Collecting Evidence on Cloud

The Client: Telecommunications Investigation Corps (hereinafter TIC) is one of the most important subordinate agencies of the Criminal Investigation Bureau, Taiwan. It is in charge of investigation of major criminal cases, collection of special information, cyber-crime fighting, etc.



Challenge

“It is vital for us to collect information right on the scene, as digital information can be easily erased, contaminated or tampered with.” said TIC officers. Nowadays, a lot of apps store the information on the cloud rather than local storage; yet, traditional tools either fail to capture cloud data or are too tricky to use (e.g. requiring login passwords or tokens extraction) – all these mean time consumption, complication, and the likeliness of losing data – as the suspect(s) may try to lock, encrypt or delete files after the crime plan is compromised. Besides, the Internet is blocked in labs, this means getting cloud data is simply impossible. As a result, getting cloud data has become a troublesome task, and traditional tools aren’t helping much.



Solution

To solve the issues, TIC introduced SmartPhone Triage to meet the needs. Currently, with features like automatic scrolling/clicking and screen capture/recording, TIC officers can now collect data on the spot when the account is already been logged in. Hence, requiring the login passwords is no longer a problem, and the worries of whether the data is stored locally or on the cloud have been relieved. Furthermore, with the hash value calculation and blockchain evidence preservation features, the investigators can also secure the originality and integrity of the collected data.



Results

With SmartPhone Triage, getting cloud information is no longer a challenging task, and TIC have greatly improved itself in its most notable concerns, including:

- Reduction in the risks of contamination, loss or tampering of the evidence.
- Reduction of the costs and the risks of delivery of devices to the labs.

“Asking for the login passwords is no longer needed. We just get what we see on the smartphone screen and it’s very helpful especially for collecting the evidence on the cloud.”

CASE STUDY 3:

Collecting Data in Forensics Labs

The Client: Investigation Bureau of Ministry of Justice (hereinafter MJIB), one of the subordinate law enforcement agencies of Taiwan's central government, is in charge of the investigation of various kinds of serious crimes (e.g. drug trafficking, firearms trafficking, human trafficking, etc.).



Challenge

The cases of MJIB are mostly related to serious crimes, therefore, in most cases, the suspects have criminal networks to assist them reach profits and goals. Consequently, the criminal investigation of MJIB put their emphasis on both crime scenes and the lab environment. However, they've encountered challenges in both environments. In crime scenes, they encounter the same issue that of the police force. (for details, please consult: Case 2). In the lab environment, they've also found that traditional tools have its limitations – e.g. the data of the devices with unsupported apps or versions just cannot be collected or extracted.



Solution

With the introduction of SmartPhone Triage, MJIB has both relieved the concerns. In the lab environment, the solution helps them collect the data on devices with the apps unsupported by traditional tools. It is due to the complementarity of the tool, law enforcement has now even wider technical coverage in investigation. Another feature of the solution – relationship analysis – has also been of great assistance to MJIB. In bigger cases, the tool helps the officers to figure out the criminals' pattern and their relationships to the criminal activities.



Results

Aside from the obvious reduction in time, process and resources consumption, the tool has also helped MJIB in their top concerns, including:

- Avoiding the risk of losing data after doing downgrade or other complicated procedures required by traditional tools.
- Assisting officers in acquiring a better view in the relationships and patterns of criminal activities.

“SmartPhone Triage keeps away the risk of crashing the data, therefore, it has been a great complementary tool in our forensics labs.