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CASE STUDY

Case Snapshot

Who:
Simon Lang, Senior Digital Forensic Consultant/Digital Forensics Manager, SYTECH - Systems Technology Consultants Ltd., Stoke-on-Trent, England

What:
Use of Cellebrite UFED Link Analysis to attribute suspect handsets and assess and identify victims

Why:
Investigating rings of criminals who produce child exploitation materials

Results:
UFED Link Analysis saves time and effort associated with connecting suspects and victims on child exploitation, illegal money lending and drug conspiracy cases

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This tool comes in extremely handy in child exploitation and grooming cases, which are becoming more common in the UK

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Simon Lang
Senior Digital Forensic Consultant / Digital Forensics Manager
SYTECH - Systems Technology Consultants

How Cellebrite's UFED Link Analysis Strengthens Cases Against Child Predators and Co-Conspirators

Child exploitation can be one of the hardest crimes to prosecute. Victims are often too scared or ashamed to admit any connection to a suspect, and pedophiles go to great lengths to protect one another. To make their cases, police need ways to tie suspects and victims to one another via the frequency, type, and mode of their communications. Often this evidence is found on their mobile phones and GPS devices.

Simon Lang, Digital Forensics Manager at SYTECH - Systems Technology Consultants Ltd., England, has put UFED Link Analysis to work on several such cases in recent months. In the United Kingdom, law enforcement agencies frequently outsource digital forensics to firms like SYTECH. That's because when a case goes to trial, the courts require an independent review of the work police did. High profile or complex cases with multiple devices often end up in court, so teams like Lang's need tools that enable them to explain digital evidence simply and concisely at trial.

Lang himself has been a mobile device forensics examiner since about 2008, and he and his team have used Cellebrite systems since 2011. However, when faced with multiple mobile devices on a single case, they faced the time-consuming process of running data through spreadsheet software.

"Creating custom filters in Microsoft® Excel® and looking for common contacts, usernames and IDs, and incriminating content [such as text messages] can take a few hours when comparing the results from iPhones etc.," says Lang.

That's because of the sheer amount of data that iPhones and other smartphones can store. UFED Link Analysis provides an almost instantaneous graphical representation of the common contacts with the click of a button. *"It is easier using these diagrams than looking at rows of text,"* says Lang.

Why is this important? Lang and his team work on large cases involving multiple defendants across the United Kingdom, including child exploitation and drug conspiracy cases. *"This tool comes in extremely handy in child exploitation and grooming cases, which are becoming more common in the UK,"* Lang explains. *"There are large 'rings' of individuals who have been targeting vulnerable people across the country."*

One of the most common ways his team uses UFED Link Analysis is for attribution of handsets, when the suspect denies ownership. Investigators can corroborate text messages or instant messaging, call logs, contacts and found on the suspect's handset with like data found on victims' or other suspects' handsets.
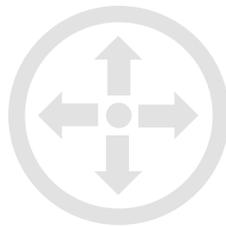
Lang's investigators also use UFED Link Analysis to compare "clean" and "dirty" phones. In these scenarios, suspects use one device for everyday noncriminal activities, and a second or more devices for their criminal activities. Common contacts and locations between the two can show which devices are used by the same suspect(s) and thus, can tie otherwise "innocent" suspects to the crimes they commissioned or committed.

The software is also handy for assessing multiple victims on these cases. The "Links-Mutual" view shows whether victims all had one or more suspects in common on their devices; patterns in keywords or timelines—days of the week or times of day—can help corroborate the evidence.

Once the evidence is collected and analyzed, Lang uses the snapshot option to show common contacts within cases, placing these within his report. Put together, the links and patterns strengthen the Crown's case and lead to what Lang believes will be a higher likelihood of conviction.