

Case study

South Carolina Law Enforcement Division & Magnet Graykey & Axiom

How SLED helped solve the Murdaugh double homicide with key digital evidence



About South Carolina Law Enforcement Division (SLED)

- Formed in 1947
- Provides assistance to agencies across the state
- More than 400 sworn agents and 140 employees

Challenges

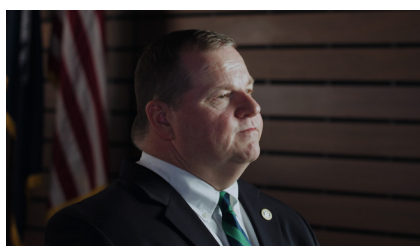
- Multiple devices related to a high-profile case
- Potential to miss data with less comprehensive extractions
- Complex evidence connections to report

Solution

- Magnet Forensics enables SLED to:
- Obtain full file system extractions from mobile devices
- Compile and correlate evidence from multiple evidence sources
- Easily establish and present evidence timelines

Results

- Recovered critical video and metadata from the victim's phones
- Delivered evidence and testimony that led to conviction
- Provided answers to those affected by the crime



Magnet Forensics tools have played a huge role...to be able to grab that information, get the results, and then get it to the investigator in a timely manner."

—

Lieutenant Britt Dove

Supervisory agent, South Carolina Law Enforcement
Division Computer Crimes Center

The challenge

Taking in multiple devices

As the Murdaugh case gained international attention, it landed a bevy of devices on Lieutenant Britt Dove's desk.

The South Carolina Law Enforcement Division (SLED) Computer Crime Center along with Dove were trusted with examining mobile phones, laptops, routers, trail cameras, and much more.

It's the moment Dove lives for.

"I love to hunt for the information," he said.

"Everybody has information that they carry around every day whether it's in their phone, cars, or computers...(I want to) find that to help victims and their families get the answers they need."

Responding to the large crime scene

In this case, the victims were Paul and his mother Maggie, both shot and killed on a late summer evening at their dog kennels in Hampton, South Carolina.

A 911 call reporting the discovery of the victims came in from Alex Murdaugh, father to Paul and husband to Maggie. He was distraught and agitated.

Due to the size of the crime scene and the prominence of the family involved, local officers immediately called in SLED for manpower and technical assistance. SLED arrived and collected a range of evidence and devices, including three mobile phones from Paul, Maggie, and Alex.

How Magnet helps

Extracting full file systems

Dove connected Maggie and Alex's phones to Magnet Graykey.

"I was able to use Graykey to obtain the full file systems on the phones," Dove said, noting other extractions would not have provided the same level of detail.

"Whether it be cases we work on a day-to-day basis or a large case, if we can obtain a full file system extraction, it's going to give us the most information possible," he noted.

Investigative interviews revealed accessing Paul's phone could be essential to solving the case—specifically finding a video recorded at the kennels minutes before the murders.

Dove had to be careful in attempting to access the phone to avoid resetting it. SLED worked with the Secret Service to generate a predefined dictionary of relevant numbers that could be used for Paul's passcode and his date of birth got them the access that they needed.

Establishing a timeline

Assisting all agencies across the state, SLED handled close to 750 devices in its lab and processed more than 100 terabytes of data in one year alone. It needs a reliable way to make connections quickly.

"Many times, when I begin an examination into a device and I have parameters of a certain time where an incident happened, I'll start with a timeline," Dove noted.

"I'll go back about an hour and then forward an hour to look at everything... then I can dive deeper into different artifacts."

To gather this overview, Dove processed the mobile extractions from all devices in Magnet Axion.

Among other files, he located the key video and the time of day—taken at the Murdaugh's dog kennels, moments before the shooting.

"When I went to do the analysis, Axion made it very easy to go through the timeline," Dove said.

 For this investigation, we were very fortunate...the full file system extraction gave us the ability to look at knowledge databases and to dig deeper into the phone to get deleted information."



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"Then I was able to explore and see that it had the GPS information to prove that video was taken at the kennels...Axiom provided good information, all the different metadata was in there."

As part of a comprehensive toolbox approach to digital forensics, Dove and his team ran the data from this investigation through multiple tools to validate their findings.



Securing critical evidence

When Dove heard the audio of the video, he knew it would clinch the case: He could hear the voices of Paul and Maggie—along with Alex—who had denied being at the kennels at that time.

"I was able to see the video, hear the audio, and look at the metadata to see it was captured with that camera time and date," Dove said.

Along with the video, SLED's Computer Crime Center delivered additional insight to investigators through the analysis of calls, text messages, vehicle data, and more.

For instance, detectives found Maggie's phone on the roadside the day after the crime. SLED uncovered cell phone and vehicle data showing Alex's car passed the same spot soon after the murders, then quickly accelerated.

Magnet Forensics solutions helped them make essential connections and engage the investigators working the case:

"Magnet Forensics tools have played a huge role," he noted, "to be able to grab that information, get the results, and then get it to the investigator."

Testifying in court

At the trial for Alex Murdaugh, Dove was on the stand for close to eight hours over two days.

"It was a long testimony, and it was difficult in trying to bring more complex things of digital forensics and make it understandable to the common juror," he said.

But he was prepared.

With solid data, Dove and the prosecutors worked together to understand what they were working to accomplish with the presentations.

"Digital evidence is very important," Dove said. "A lot of times it can be that one piece of the puzzle that's needed to help make that picture complete."

Gaining a conviction

The jury for the Murdaugh case deliberated for less than three hours, then delivered a guilty verdict.

Alex received two consecutive life sentences for the murders of his wife and son.

"At the conclusion of this investigation and trial, I felt a sense of satisfaction," Dove related. "I'm trying to find answers for the victims and for their families... to help bring closure to them."

Going forward, SLED recognizes the value in continuing to use Magnet Forensics and other integrated tools for cases.

"It's given us the ability to unlock phones we previously would not have been able to get into," Dove notes. "Then, to get that information to the investigator quicker so they can move their case forward."



Be prepared to serve high-profile cases with integrated tools from Magnet Forensics. Learn more about [Magnet Graykey](#) and [Magnet Axiom](#) today.