

PROVING CRIMINAL INTENT WITH CDR, GPS AND DEVICE BATTERY STATUS DATA

AUSTRIAN FEDERAL POLICE (BMI)

THE CASE

When a woman was found brutally murdered in her home, the police began an investigation into her ex-boyfriend. He had a strong alibi as he was with his current girlfriend who lived on the other side of town.

Upon interviewing both of them, they learned that the ex-boyfriend had been lying to the police about the night in question. They began to put together the evidence of his involvement in this murder.

During questioning, the girlfriend revealed that the suspect once expressed intention to kill the victim. She also purchased a GPS pet tracker for him, though they did not own pets.

THE CHALLENGE

With two conflicting suspect accounts, the police turned to the data to find out exactly what happened. The police had a variety of data from many different devices, with different formats and fields. What they needed was a way to look at all the data in a single timeline to understand what happened the night of the murder.

The data included: call records from both suspects and the GPS tracker that was allegedly planted in the victim's car. The tracker has a SIM card, which provided CDR data, GPS pings, and battery levels. The GPS pings indicate that someone was sending signals to the tracker to force a location check.

HOW GEOTIME HELPED

All these data points showed when and where the tracker was active. By loading all this data into GeoTime — battery status, GPS, and CDR data — the analyst can see when the GPS tracker was removed from the victim's vehicle for charging, and who was pinging the phone.

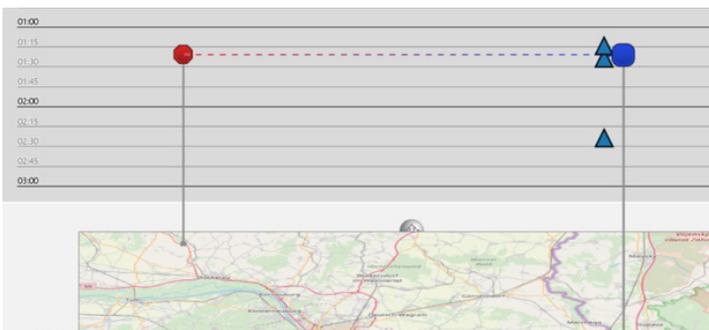
Combining the tracker data with the suspect's call records in GeoTime, the police were able to match the tracker's activity to the geographic journey of the ex-boyfriend's phone. This identified the ex-boyfriend as the one using and recharging the tracker, proving intent to monitor the victim's movements and carry out this crime.

GeoTime Features Used:

- Data layering for call records, GPS and battery status
- Callout annotations in calendar view
- PowerPoint reporting for court

THE RESULT

The police were able to build a solid case against the ex-boyfriend and the new girlfriend, who received an 8-year prison term as his accomplice, as the GeoTime analysis work by the police clearly showed her involvement in the crime. The suspect passed away in jail while awaiting the trial.



The red point indicates the location of the girlfriend's cell phone, and the blue point for the ex-boyfriend's cell phone. The blue triangles indicate that the GPS tracker is in a charging state at the time stated. This proved that the boyfriend was the one using the tracker with the intent to monitor the victim.