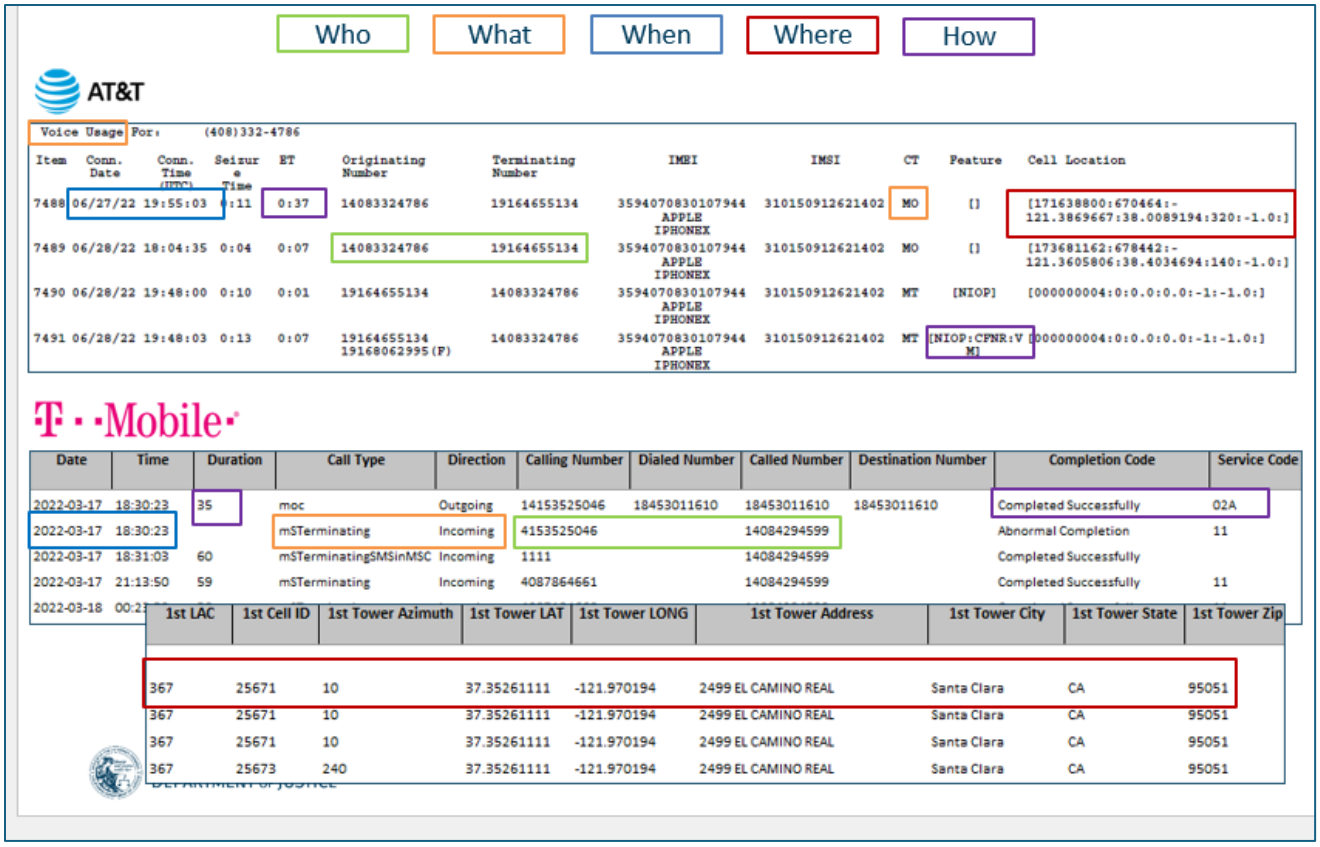
Nomination – Sara Morin – Crime Analyst (California Department of Justice)

Sara Morin has been employed as an analyst with the California Department of Justice (CA DOJ) for over 20 years. In that time, she provided guidance and mentored several analysts within the Department, including me. She's also provided guidance to several analysts, investigators, and prosecutors outside our Department.

I came to work for CA DOJ in 2005 from a completely different field. After about a year, I was assigned to work with Sara at our regional office on an anti-terrorism case. Sara and I worked closely for the next year looking at phone records, making target packages, providing our findings and analytical recommendations to the Special Agent in charge of the case. In that time, she provided tips about what to look for and how to effectively communicate our analytical findings. Since then, Sara and I have worked on hundreds of cases together and she's peer reviewed countless analytical reports I've written. She continues to provide valuable insights that make my analytical products better – we can look at the same data set, and she will say "have you thought about this?". To this day, she's an invaluable part of our unit and my workflow. I wanted to provide this background on Sara's impact on me to provide a foundation of how Sara impacts the analytical environment around her.

Sara works in the world of digital evidence. Specifically, the analysis of historical location and communication records related to violent crime cases. She authors reports detailing her analytical findings and provides expert testimony in court. She does this with over a decade of experience in this area and an in-depth knowledge of the data from her time in Narcotics unit and working violent crime cases. Because of this Sara is often contacted by other analysts, investigators, and prosecutors, with questions about data. She never hesitates to provide guidance and outreach. Her prevailing thought is that everyone involved should be able to understand what they are looking at and how to glean information from it; and by passing along this knowledge – it ensures everyone is on a level playing field when it comes to the analysis of digital evidence. I've sited a few examples below:

1. Sara created a PowerPoint slide for court that shows an easy way of explaining Call Detail Records (CDR) and the information contained in them. This is one of many slides Sara has created to make information easier to understand and more digestible to prosecutors and to a jury.



2. Sara was contacted by a fellow analyst at a local agency who requested her assistance in interpreting Timing Advance Records (i.e., specialized location data from T-Mobile). The analyst was providing assistance on a case and wasn't having success mapping the records. Sara not only spoke to the analyst over the phone to walk her through the steps, but also drafted an email detailing best practices and a step by step guide on how to read the records, load them into a mapping program, and create visual demonstratives for the prosecutor. This is just one example of Sara providing assistance. Recently, she was contacted by an analyst who was at a training who got stuck on a practical exercise – and Sara shared with the analyst how she interpreted the exercise and what she's learned by looking at similar records.

3. Sara realized that when she was talking to investigators and analysts there was a need to create something to help people realize what digital evidence could be available on a case and an easy checklist to keep handy for reference. She wrote and distributed a newsletter to pass along some of the knowledge she's gained while working on cases. Below are some excerpts. This is just one example of a few newsletters Sara authored to ensure knowledge transfer.

ANALYTICAL ANGLE

Violent Crime Investigative Support Section (VCISS)
VCISS@doj.ca.gov | (916) 210-3117

VOLUME 2: CHECKING BOXES

COVERING THE BASES ON A NEW CASE

Technology is constantly evolving and there has been a rapid increase in information we can access to corroborate or refute evidence of crimes. While exciting, this can present a challenge. Think about all the different applications you interact with and devices you use each day. Each is a piece of the puzzle and layering this data together can present a picture of your day. The same is also true for your target(s) and/or victim(s).

TIPS

- Find access to free training, tools, and other great resources offered by the National Domestic Communications Assistance Center (NDCAC) through the FBI's Law Enforcement Enterprise Portal (LEEP): https://portal.cjis.gov/
- Join a user group to stay up to date on emerging trends and best practices (e.g., Hi-Tech Resource Site https://groups.io/g/kloving)
- Become familiar with SEARCH https://www.search.org – particularly their Internet Service Provider (ISP) list for current legal contact information and download their free investigative and forensic toolbar for additional resource information.
- Become familiar with what Apple and Google retain:
  - Apple: https://www.apple.com/legal/privacy/law-enforcement-guidelines-us.pdf
  - Google: https://lers.google.com/u/2/app/faq

EXTRACTION LEVELS: There are three levels of extractions, each determines how much data you are seeing in the download of a device: Physical = Excellent, File System = Good, Logical = Satisfactory

SPECIALIZED LOCATION RECORDS: Usually only retained for a short time, Specialized Location Records are Timing Advance (AT&T, T-Mobile), Per Call Measurement Data/PCMD (Sprint Legacy), and Range to Tower/RTT (Verizon). This data is the Carrier's best guess of where a device is on their network. May not be tied to other call, text, and data sessions transactions. Provides the distance of the

Below are some data sets you might want to consider preservation orders and/or search warrants for:

DATA SETS		PROVIDERS & TIPS
☐	Carrier Records for devices and vehicles. This includes call detail records, data sessions with cell site location information, and specialized location records.	**AT&T, T-Mobile, Verizon, etc.** Lookup legal contact information here: https://www.search.org/resources/isp-list/
☐	Extraction of devices like cell phones, iPads, and computers.	Companies like **Cellebrite, Magnet Forensics, XRY Forensics**, etc. provide hardware and software to conduct extractions. If your agency does not have the capability, consider your local Hi-Tech Task Force or contact CA DOJ's Office of Digital Investigations (ODI): digitalinvestigations@doj.ca.gov
☐	Social networking records and other communication applications	**Meta, TikTok, TextNow, WhatsApp, Bumble, Tinder, etc.** Lookup legal contact information here: https://www.search.org/resources/isp-list/
☐	Apple iCloud backups and Google accounts for location history, searches, media, browsing activity, contacts, health, etc.	**Apple:** https://www.apple.com/legal/privacy/law-enforcement-guidelines-us.pdf **Google:** https://lers.google.com/u/2/app/faq - register for a LERS account if needed
☐	License Plate Readers (LPR) and city cameras	**Flock, Vigilant, etc.** LEAs may have access to date, time, location data of vehicles based on their license plates being picked up on cameras

4. Sara continues to be a lead analyst in her unit at the CA DOJ, Violent Crime Investigative Support Section. I work with her daily. And even after a decade of working with phone records, social media records, and extractions, she still has a thirst for new knowledge and a desire to pass that knowledge along. She regularly takes webinars and distributes her notes to our entire unit. She details her takeaways and what she thinks will be valuable and useful in upcoming cases. If she identifies information that she feels could be valuable to another unit whose analysts may not be taking the training, she will make sure she provides that information to them. I will often hear her on the phone with analysts from other agencies, investigators, and prosecutors explaining what certain parts of digital evidence mean and how to interpret it, using analogies to explain, or distilling it down to a digestible format. She will often say – "I am happy to speak with them" – or "Have them give me a call". She doesn't hoard her knowledge because Sara believes the more people know the better for all of us.