



CLM 2018 Annual Conference
Wednesday March 14th Friday March 16th

“Mobile Device Forensics- New Technologies for Trucking Accident Claims & Litigation”

I. The Increased Prevalence of Mobile Device Forensics in Trucking Accident Claims and Litigation

Distracted Driving

Don't text and drive. Just one text could cost you your life. Who says texting doesn't kill the conversation. Most people are familiar with the campaigns aimed at educating the population on the dangers of texting and driving. They may even know the statistics, that texting and driving reduces your reaction time by almost forty percent, or that texting and driving is considered by many to be more dangerous than driving while drunk.

Despite the extensive campaigns extolling the dangers of using your cell phone while driving, I bet most of us would agree we see at least one person using their phone while hurtling down the highway during our morning commute. It would be comforting to think that this type of activity is on the decline, and that the efforts of safe driving advocates is working. Unfortunately, the evidence simply does not bear this out.

Much like smoking, if someone is asked directly if they think texting and driving is safe they will likely agree with the experts that it is not. Don't text and drive is both a command and a slogan. It is memorable. However, people do much more than simply text on their phones. You may be shocked to learn that more than just making or receiving phone calls or reading and responding to a text message, people do a number of risky actions with their phones while driving.

People are playing games, video chatting, browsing the Internet, Instagramming and Facebooking. A cell phone is an endless source of potential distractions via the thousands of applications available today for cell phones and the cell phone's cousin, iPads and other handheld devices. These activities create a plethora of digital artifacts that can be recovered and examined by expert forensic examiners.

While each and every one of these applications creates a new challenge for the forensic examiner they also create additional opportunities for legal professionals by revealing evidence of driver activity.

When trucking accidents happen claims about distracted driving are become more and more common. Examining the cell phone can be a critical component in showing that a driver was practicing safe mobile device usage while operating their vehicle.

What Can Be Recovered From Mobile Devices

The same device that causes such distraction is also the primary source of evidence for determining what happened. The forensic artifacts recoverable from cell phones allow us to determine if someone was texting, making phone calls, chatting on Facebook, using one of the many messaging applications like Snapchat, Kik Messenger, Apple iMessage, and much more. We can see if someone was watching a YouTube video, catching up on the latest episode of The Walking Dead, listening to iHeart radio or using Google maps to figure out where they were going to go for dinner. And in many cases, this is true even if the information was deleted by the phone user. This creates an evidence cache that allows forensic examiners to recover mountains of useful information from cell phones, including what is commonly called deleted data. Just because someone thinks it's gone, that does not mean it really is.

This is unlikely to change in the near future. As "cell phone wars" heat up, more apps are created, and convenience is favored over security, cell phone examinations will become even more potent and prevalent in distracted driving incidents. One of the new selling features of automobiles is the ability to have app links between the vehicle entertainment system and the phone like Apple's Carplay, Google's Android Auto and Ford's Applink.

This is why when an accident occurs and there is any chance that the driver may have been distracted, getting access to the cell phone is critical to revealing all of the evidence. While accident reconstruction can tell a lot about what happened, the additional layer of cell phone data can complete the story and should be considered evidence important to any vehicle accident case, and especially in those involving trucks.

Collecting and Preserving Cell Phone Evidence

Understanding how to properly collect and preserve mobile device evidence is critical. Digital data is fragile, and handling electronic devices improperly can cause the evidence in question to be lost. The importance of having proper evidence handling protocols in place is critical. This can include what to do with the cell phone by rapid response team or insurance professional at the scene of an accident.

While the forensic examiner will have access to special tools and equipment, such as a Faraday bag or cage which blocks all signal to the cell phone so that it cannot be remotely wiped, and also so that new data will not overwrite or delete older data, those first on the scene are unlikely to have such equipment.

Having a known procedure in place, where the phone is collected, and isolated from any networks, both wireless and cellular, can be achieved simply by a first responder through placing the cell phone in airplane mode and ensuring wireless networks are not turned on. The second part is critical, as many phones can be in airplane mode but still have wireless turned on. This is

a common practice, as many people use their cell phones in airplane mode while connected to a wireless network on an airplane.

When collecting the phone it is also important that the first responder does not go through the phone and begin looking through text messages, emails, or any other information on the phone. By doing this it is possible for the first responder to unintentionally delete data or otherwise harm the data on the phone.

Cell Phone Call Detail Records as Evidence

The records kept by wireless phone companies about the use of cell phones are immense and very detailed. Wireless companies keep records about when and where a phone call is made, when text messages are sent and received, and when data is transferred.

All of this phone activity data is available if you ask the wireless phone company to provide it to you, and you are still within the window of time that they keep their records. Unlike many other records, wireless phone records or “call detail records” are not protected by the Stored Communications Act and are not protected by the 4th amendment. They can be obtained via subpoena or by request of the account holder via a notarized letter.

In the many investigations we perform at Guardian Digital Forensics, the cell phone device is missing for a myriad of reasons, leaving any evidence of phone usage to be gleaned from the wireless phone company records. These records are known as call detail records and they are different from phone bills.

A phone bill is only accurate to the minute since the majority of wireless phone companies’ bill to the next full minute. This means that a phone call that lasts 15 seconds would show 1 minute on a phone bill. A call that lasts 1 minute and 1 second will show as 2 minutes on a phone bill. Also, a phone bill is only going to give you evidence of billable activity. Billable activity does not include outgoing calls that did not connect to another phone, and may not include outgoing calls that connect to another phone’s voicemail.

Call detail records will give you the phone activity duration to the second for most wireless phone companies. Additionally, a call detail record will provide all call attempts whether they connected or not. And if requested, call detail records will contain the cell tower used for each connected phone call.

The call detail records can contain multiple types of records, including voice, text messaging and data transmission activity. The biggest mistake we see in the interpretation of this activity is that data transmissions are the result of user activity. Our firm worked a trucking accident case where the opposing expert was a 20 year veteran homicide detective who advised counsel that data transmissions indicated the truck driver was using his phone at the time of the accident. However, once we explained that data transmissions occur all the time, whether the phone is being used by the person or not, and that it is impossible to determine what kind of data is being transferred, the opposing party dropped the case.

Voice calls are an indication of phone usage by the driver, however, whether or not the phone is being used hands free is impossible to determine from a record. Also, if the incoming call is answered by voice mail can be determined from the call detail record, where on some phone bills, this would not be indicated.

Text messaging is shown in call detail records. However, the content of text messages is not. To get the content of text messages, a request must be made to the phone company within days of the incident. Another misinterpretation that comes up in many of the distracted driving cases we do is that incoming text messages are an indication of user activity. It is impossible to tell from a phone record that incoming text messages are being read by the person with the phone. However, outgoing text messages are a clear indication that the phone is being used at the time the message is sent. Even this comes with a caveat since some phones can be set to automatically send text messages in response to certain conditions.

Location information stored in call detail records can be used to determine if a phone is near a particular place. Call detail records can allow an expert to determine if the phone was in the general area near the time of an incident. We have used this information in cases involving fires, explosions, and hit and run auto accidents. In one case we handled, the insured driver in a hit and run case claimed to be in Atlanta Georgia at the time of the accident that occurred in Birmingham, Alabama. The driver's call detail records clearly show the phone near the location of the hit and run at the time of the accident.

To get a complete picture of what happened in many cases, getting the call detail records from the wireless phone company is critical.

II. Privacy Issues and Access to Evidence

Gaining Access to Cell Phones

While there is no industry consensus on the issue, an effective way to secure a driver's phone that doesn't leave them without a mobile device is a two part process:

Convincing the driver to give up their phone is a critical step. If it is a personal phone, providing the driver with a new upgraded cell phone in exchange for their phone can be persuasive.

A company representative would need to go with the driver to a cell phone store for the same wireless phone company as the driver and purchase a replacement upgrade phone for the driver. While at the store, the driver's phone can be backed up and his or her contacts, photos, etc. can be transferred to the new phone. Then the existing phone can be taken for preservation.

To preserve the phone the company representative would make sure the driver's phone is placed in airplane mode, turned off and securely packaged.

If you have a cell phone forensics company that you use, then you can send the driver's phone to that company for placement in secure storage in case litigation occurs in the future.

Otherwise, you would want to store the phone in a secured package in a safe place in your corporate office, or at counsel's office.

Truck Driver Privacy Concerns

Cell Phones can contain a massive amount of data, much of which would be irrelevant to an actual trucking accident incident since they can contain data created from usage over multiple years.

An effective way to address driver privacy issues is via a policy document or a protective order that can be signed by the driver and the company.

The "protective order" would describe both the contents and time period that will be exposed once the phone has been examined by a cell phone forensic expert. Current cell phone forensics tools have limited capability based upon phone models to allow the selection of a time period for the forensic extraction of a cell phone. In many instances the entire contents of the mobile device have to be extracted and then filtered to relevant data types and time periods.

From here the expert can produce from the forensic extraction a limited scope of time and contents from the phone.

Gaining Access to Call Detail Records

a. Subpoena Language

To find the most up to date custodian of records information for each wireless telephone company, you can go to the website at www.search.org. The list for custodians is maintained by updates from law enforcement agencies who work with the wireless telephone companies on a regular basis and is called an ISP List on the website and can be found under the resources

The process is fairly straightforward for getting call detail records and cell tower lists from the various wireless companies. However, the additional information you should collect such as maintenance or outage records, can be difficult or impossible to obtain. You will want to provide a detailed request to the wireless telephone company's subpoena compliance department to obtain records.

The requested information you will want to put into a subpoena or other type of request is:

Language for use in discovery motions and court orders for Call Detail Records and Cell Tower Locations. The items in red should be edited to fit your particular case details.

This is a request the following information be provided regarding cell phone communications in the form of historical call detail records and cell tower locations, for cell phone number(s) **000-000-0000** for the period of time between **00-00-2000 and 00-00-2000**.

All information including but not limited to:

1. Subscriber information for the above listed numbers, including financially responsible party, billing address, features and services and equipment,
2. All call originations, call terminations, call attempts, voice and text message transactions, including push to talk, data communications, SMS and MMS communications, and voice communications, including the originating and receiving phone numbers or network IDs for all incoming and outgoing call transactions, data transactions and push to talk sessions.
3. Records are to include the IMEI, IMSI or other equipment or handset identification information for the target phone number.
4. All stored SMS content, MMS content and / or Browser Cache if available.
5. Beginning and ending switch and cell site / tower identifiers for each call, SMS MMS and data transmission, including the location information, azimuth and beamwidth for the tower and sector used for the call.
6. A complete table of cell towers / cell site information for all cell towers / cell sites in the LAC, NEID or service area and or for all switches used, active at the time period for the call detail records requested.

This shall include:

- a. cell tower location information including latitude and longitude
 - b. cell tower / cell site designation information / identification numbers
 - c. information for each cell site sector including azimuth.
 - d. equipment type used at the cell site, i.e. Lucent or Nortel, etc.
 - e. NOTE TO ATT MOBILITY: Even though the tower location information is in the call detail records, this subpoena also requests a list of cell tower locations with the latitude, longitude of each tower, the sector azimuth and the beam width, if known, for the time period covered, in comma delimited or Excel format, for every tower referenced in the call detail records responsive to this subpoena.
7. a legend and definition for any and all abbreviations used in the reports provided
 8. An explanation of how to read the call detail records.
 9. Specific information regarding the time stamps / time zones of the records.

Provide the following information regarding cell tower locations for the following areas containing cell towers actively in service between **8-1-2014 to 8-31-2014**.

For each LAC / NEID or Switch that that is operational for a 25 mile radius of downtown Albany, NY.

Include the below cell tower information:

LAC / NEID / REPOL / SWITCH NAME or ID
Tower number
Sector number
Latitude
Longitude
Sector Azimuth
Horizontal Beam width if known.

- Any records or information regarding cell towers that were undergoing maintenance, or were out of service the time period in this request.
- All responsive data is to be provided in both Adobe PDF format and Microsoft Excel format, .TXT or .CSV format.

Please indicate in your response to this subpoena if there is any data loss due to the time difference between the date of the receipt of this subpoena and the time period requested, and if so, a detailed description of what data is not recoverable versus what data would be recoverable based on the carrier's retention period for call detail records.

Please respond to this subpoena via email to: someone@youremailaddress.com

b. Obtaining Records from Opposing Counsel

In many cases you will be requesting that records be provided to you as part of the discovery process. When this happens, you will want to make sure that you obtain everything that the wireless telephone company provided to opposing counsel. Bear in mind that when the wireless telephone companies respond to a court order, subpoena or search warrant, they will normally provide the records in electronic format as an attachment to an email to the requestor. What you want to receive in discovery is the email and the attachments to the email that was sent to the requestor so that you get the exact same files the wireless telephone company provided.

The reason this is so important is that in many cases the telephone or call detail records that will be provided to you in discovery will be scanned copies of printed versions of the electronic documents. These scanned copies are not the electronic format you want as they do not allow you or your expert to efficiently analyze the records. In some cases, this will force your expert into hand keying records which is time consuming and prone to errors.

III. Trucking Defense Counsel Perspective – Lynn Castagna of Castagna Scott LLP.

A number of my clients have been brainstorming on what is the best cell phone retention protocol in major losses. Several larger motor carriers have recently decided when a major accident occurs to secure the cell phone, place it in airplane mode and mail it to a forensic cellular expert to secure the data. The phone can then be returned to the driver in 48 hours.

In the area I practice (central and south Texas), I receive a request for cell records in every case involving a truck. This request many times comes within days or weeks of even minor accidents in the form of a retention letter from claimant's counsel. The letter is often sent to the driver and the motor carrier.

In these cases, the best method to secure the actual cell records is not to obtain an authorization from the driver, but to rather request copies of the driver's cell billing record. This can be done with the help of the driver on-line or the driver may have a hard copy mailed to him monthly. The billing record versus the cell detail record (the record usually received when subpoenas are issued) is the easier record to decipher and do not contain routing or unknown calls. Plaintiff's counsel often incorrectly argue the routing or unknown calls are actual connected calls.

I have found when the billing records are produced, most Plaintiff's attorney will not then subsequently issue subpoenas for the cell detail records. I limit the time period of the billing records produced to 15 minutes before and 15 minutes after the accident. There is leeway to negotiate the time period produced depending on the driver's actual use of his/her phone.