

Police investigations utilizing cell phone call information

April 2010

Introduction

- The purpose of this presentation is to expose the police detective to the potential information that can be obtained through cell phone carriers to assist in criminal investigations.
- Additional information regarding the forensic examination of the data stored on the cell phone itself will be covered under a separate presentation.

Introduction

- Cell phone use has expanded greatly.
- Do you know anyone who doesn't have a cell phone?
- Criminals use cell phones to communicate with co-defendants, victims, friends and relatives.



What can cell records do for me?

- Can correlate or refute the statements of suspects, victims and witnesses.
- Can lead to identification of additional suspects.
- Can show links between involved parties.
- Can show patterns of movement and presence at or near the crime scene, before, during, after the offense.

Cell phone misconceptions

- By “pinging” the phone, I can get an exact location on a person (or at least their phone).
- The suspect wasn't on the phone at the time of the crime so what will cell records show me?
- There are hundreds of cell service carriers.
- The information is too confusing to figure out.
- Cell signals bounce off of multiple towers or buildings.
- You can't identify a blocked caller.

How does a cell phone work?

- A cell phone is basically just a two-way radio.
- Transmits and receives data to and from cell towers. Each tower represents a “cell”.
- Cells are a defined area which receive/transmit radio communications.
- Cells range in size from very small in urban areas to very large in rural areas.

Which cell tower?

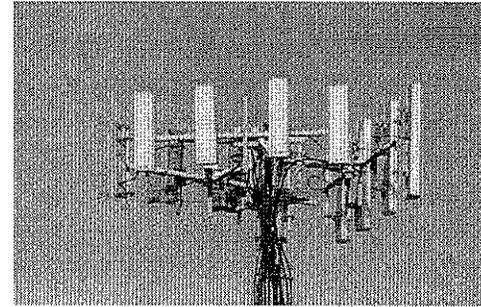
- Like all radio signals, cell signals are transmitted line of sight. Therefore topography, structures, trees and other obstructions can effect signal strength. Radio signals do not bend around or bounce off objects to change their direction.
- The cell phone is always searching for a tower with the strongest signal.
- Radio signal strength decays as distance from the tower is increased.

Cell tower transitions

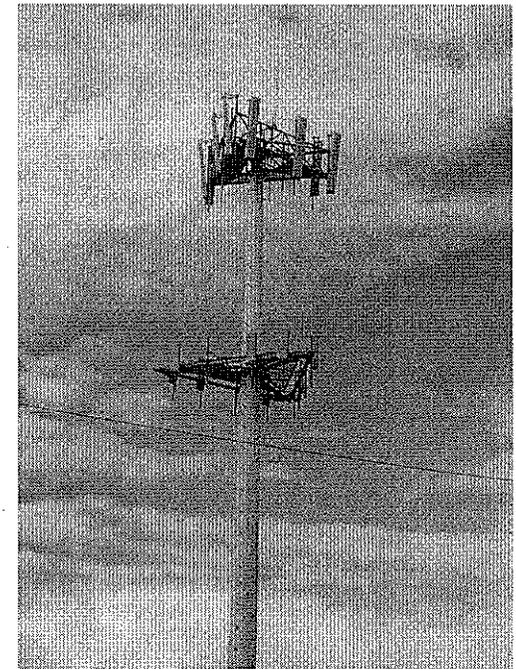
- Cell towers pass along a cell signal that is moving to the next tower with the strongest signal.
- Again, the closest tower does not always have the strongest signal.

Cell towers

- In urban areas there are usually many cell towers.

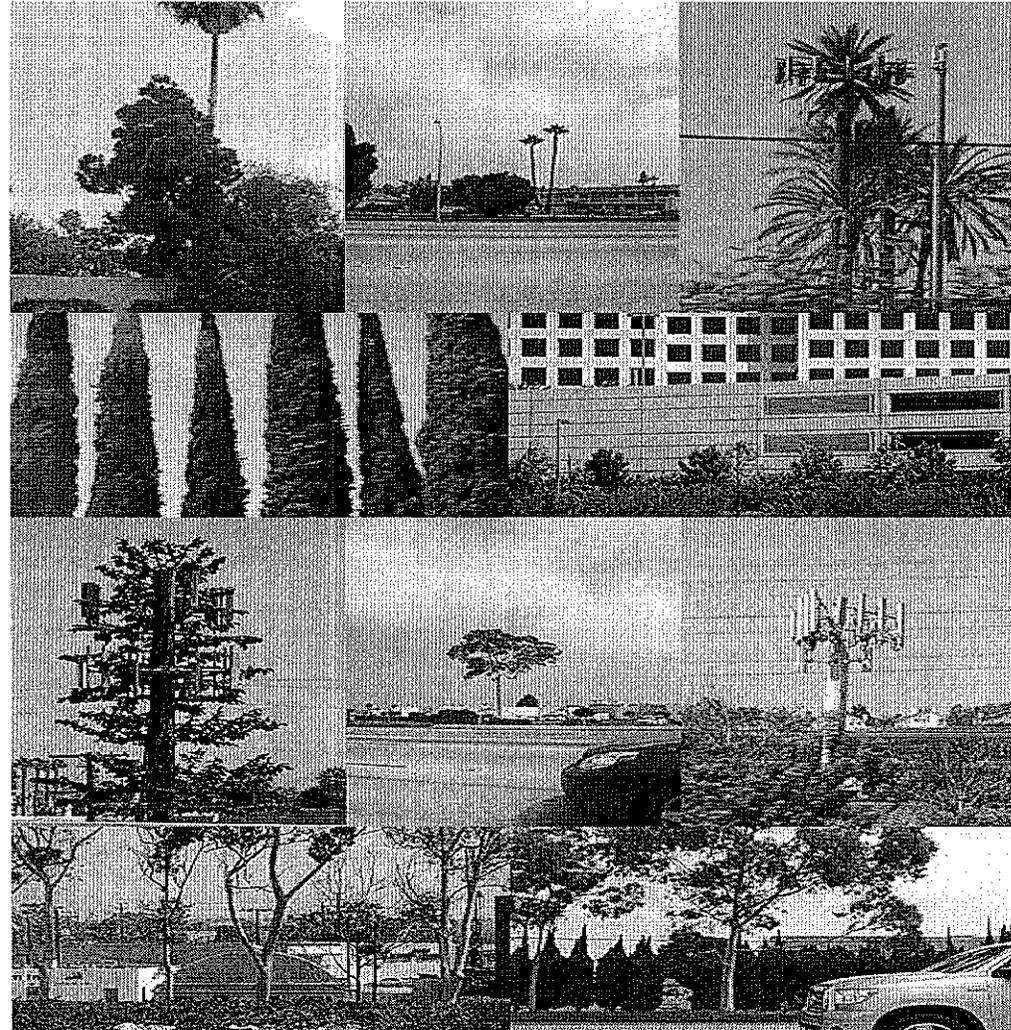


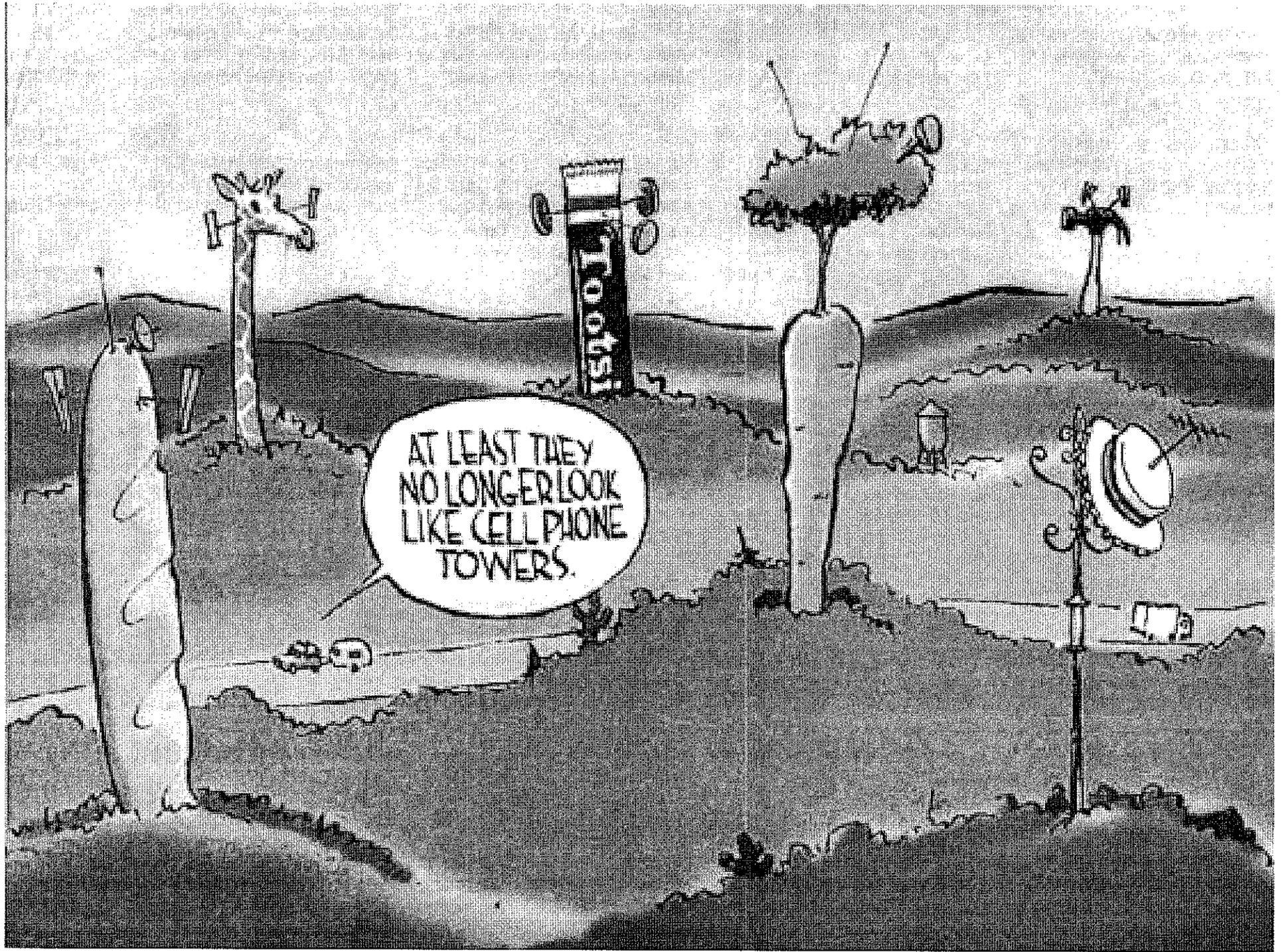
- Some are easily recognizable...



Cell towers

■ But some are not.





So? I already know all of this.

- Knowing how to obtain the RIGHT records will help you get the information you need for your case.



What kind information is available?

- There are three basic types of records used in police investigations...
- Toll records...
- Call detail records...
- Network acquisitions (“Ping”)...

Toll records

- Used to obtain the incoming and outgoing phone numbers of calls, the date, time, duration of incoming and outgoing calls and data transfers (text and pix messages).
- Toll records are generally retained for one year (carriers are only required to maintain toll records for 180 days)
- Obtained by serving an administrative subpoena on the applicable cell carriers subpoena compliance center.

Administrative Subpoena

RENO POLICE DEPARTMENT
Reno, Nevada
Post Office Box 1900, Reno, Nevada 89505
Records & I.D. (775) 334-2155
24 HR F.A.X. Only Line (775) 334-2157



SUBPOENA FOR RECORDS
[NRS 704.201 and NRS 704.202]

DATE: Monday, April 05, 2010

TO: [X] Cricket Communications Inc.
Custodian of Records
Fax: (858) 882-9237

In furtherance of a criminal or civil investigation conducted by the Reno Police Department, filed under case number *****, and in accordance with NRS 704.201 and 704.202, and 18 U.S.C. 2703, you are commanded to provide subscriber information on the following regardless of whether subscriber paid your company a fee to ensure that information would not be published, on the following individual / account / number / address:

NAME: ***** SSN: *****

ADDRESS: *****

TELEPHONE / PAGER / CELL #: (**) **-* Please provide subscriber billing address information, call detail records, including incoming and outgoing calls and data transfer information for this subscriber for *****, 2010 through *****, 2010. Thank you.

ACCOUNT NAME / INTERNET ADDRESS:

You are requested not to disclose the existence of this subpoena. Any such disclosure could obstruct and impede the investigation being conducted and thereby interfere with the enforcement of the law.

RETURN INFORMATION, please provide by: as soon as possible.

- Please telephone the requested information to: Detective ***** #**** at (775) **-****.
- Please FAX the information to the attention of: Detective ***** #**** at (775) **-****.
- Please E-mail the information to Detective ***** at *****@reno.gov

DATED: Monday, April 05, 2010

Detective *****
Reno Police ***** Unit

Admin subpoena authority

- **NRS 704.201 Investigation by law enforcement agency: Subpoena for name and address of person listed in records of customers.**

- 1. To further a criminal or civil investigation, the chief executive officer of a law enforcement agency of this State or a command officer designated by the chief executive officer may issue a subpoena to a public utility for the name and address of a person listed in the records of the customers of the public utility.

- 2. The subpoena must:

- (a) If available, contain the social security number of the person about whom the subpoena is made;

- (b) Contain a statement that the subpoena is made to further a criminal or civil investigation being conducted by the agency; and

- (c) Be signed by the chief executive officer of the law enforcement agency or the command officer designated by the chief executive officer.

- 3. As used in this section, "command officer" means an officer in charge of a department, division or bureau of the law enforcement agency.

- (Added to NRS by 1989, 803; A 1991, 147; 1997, 102)

- **NRS 704.202 Investigation by law enforcement agency: Disclosure of name and address of person listed in records of customers.**

- 1. Upon receipt of a subpoena by a law enforcement agency pursuant to NRS 704.201, a public utility shall disclose the name and address of the person listed in the records of customers of the public utility to the agency.

- 2. The public utility may charge a reasonable fee for any administrative expense related to the disclosure.

- 3. A disclosure made in good faith pursuant to subsection 1 does not give rise to any action for damages for the disclosure of the name and address of a customer by a public utility.

- (Added to NRS by 1989, 803; A 1997, 102)