



# CellPhone Technology

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# Useful Sites/Links

- CDAA Sidebars Community – send a request to join
  - <http://sidebars.cdaa.org/new-item4>
- Volokh Conspiracy – Professor Orin Kerr
  - [www.washingtonpost.com/news/volokh-conspiracy/](http://www.washingtonpost.com/news/volokh-conspiracy/)
- CALEA
  - [askcalea.fbi.gov](mailto:askcalea.fbi.gov)  
<https://208.250.68.210>
- Kipp Loving's Yahoo Group
  - <http://groups.yahoo.com/group/kloving/>
- Tracking/Mapping
  - <http://www.advancedcelltrackingsystems.com/cms/>
- Jim Cook – Premier Wireless
  - [jimcook5413@gmail.com](mailto:jimcook5413@gmail.com) – (209)606-2665
- FBI – Moot Court – C.A.R.T.
  - Musselman, SueEllen (OTD) (FBI) <Sueellen.Musselman@ic.fbi.gov>
- NCFI – Training is available
  - <https://www.ncfi.ussc.gov> Mobile Devices In Court – Prosecutors

# Four Sources

The  
Device



The  
Carrier

The Tower



Dropbox



Third Party  
Data holders

# What Evidence is Available?

- Who is the user
  - Who's the user talking with
  - What's being said
  - Where's the user been
  - Anything specific about the case
- Identification  
Association  
Communication  
Location  
Crime Evidence



# Physical Devices

## Think Broadly

- Cellphones
- Tablets
- Gaming Systems
- GPS Systems
- Cars
- IoT

## Data Storage Devices

- Ipods and MP3 players
- Thumb Drives

# Cellphone carrier records

- Call/Data Detail Records
  - Text Messages
    - To/From detail
    - SMS Detail
  - # dialed
  - # received
  - #'s entered (cut thru digits)
  - 1st cell site
  - Last cell site
- Billing Records
  - Subscriber information
  - Method of Payment
- ISP records
  - IP addresses
- Email
  - Some emails



The Carrier

# The Tower

- Tower Dump
  - Sample Warrant
  - Sample Records
- Tower Maintenance Logs



# Third Party Apps

- Social Networking
  - Facebook
  - Instagram
- Chat Apps
  - Kik
  - YikYak
  - iChat
  - ATT Chat
- Google
  - Maps
  - Drive
  - Mail
  - Voice
  - ...
- Twitter
- Cloud Storage
  - Dropbox
  - Box
  - Evernote
  - Amazon Web Ser
- Social Games
  - Words w/ Friends
  - Clash of Clans



Dropbox



Third Party  
Data holders





# The Third Party APPS

Identify the third party

Preserve the data via a 2703(f) letter

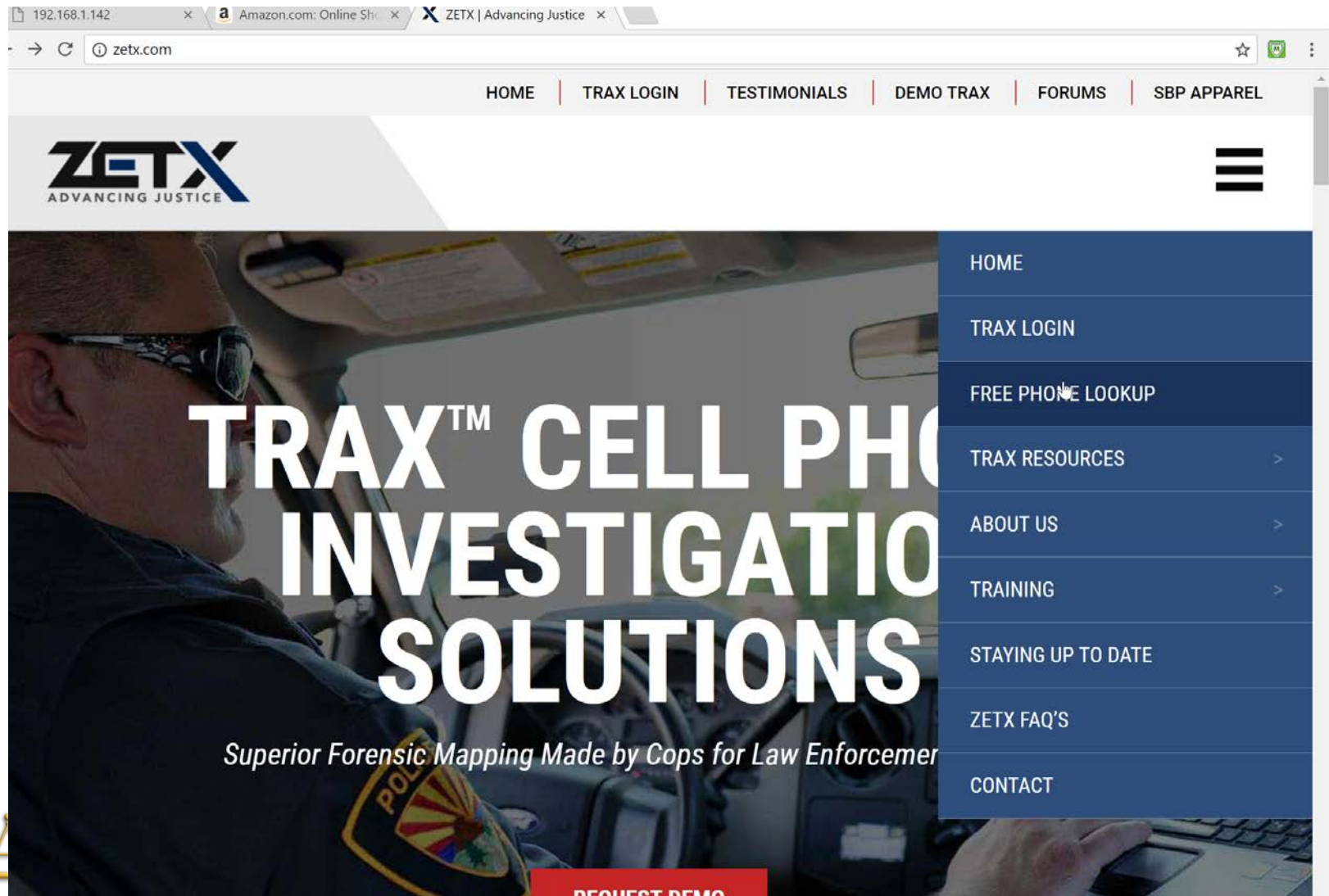
Capture any screen data via image

Demand the data via a Search  
Warrant

# What are the Steps to Get the Carrier Records

- Identify the target phone number
- Identify the ECSP (Cell Carrier)
- Locate where to serve the SW
- Write the SW
- Serve/Pay for the SW/Records

# ZETX.COM – Free Phone Lookup





## Free Phone Lookup

### Contact Information

Name

Email Address

Enter

Free phone lookup service by Zetx for law enforcement agencies, no credit card required, always 100% no cost.



# It's coming...

Click HERE for the 411

- Interactive Call Balloons
- One Click Navigation
- Instant Call Reports
- Text Content Mapping
- Picture Mapping
- Video Production Software Included

What do you want to do?



Start Time: 05/29/2016 11:35

|                 |              |
|-----------------|--------------|
| Target Number   | 480-540-3451 |
| Connected To    | 9287139187   |
| Duration (Secs) | 87 (Seconds) |
| Tower           | 240          |
| Carrier         | 2            |

Prev Call Call Report Next Call



Training - Register [here](#)

## Upcoming Classes:

### 40 HOUR CRIMINAL INVESTIGATIONS USING CELLULAR TECHNOLOGIES

JUNE: FRANKLIN, MA [6 SEATS REMAINING](#)  
JULY: MISSOULA, MT [WILDLIFE INVESTIGATORS COURSE, 2 SEATS REMAINING](#)  
AUG: CHAMBERSBURG, PA  
SEPT: CARY, NC  
OCT: ELMIRA, NY  
GULFPORT, MS  
NOV: YARMOUTH, ME  
JAN 2018: ROCKWALL, TX [SME CERTIFICATION COURSE](#)

**New to TraX? Need a refresher?**  
**Hit us up for a link to our next webinar!**

Contact us at [Kari.Montano@zetx.com](mailto:Kari.Montano@zetx.com): 480-378-6823  
or [Keri.Garcia@zetx.com](mailto:Keri.Garcia@zetx.com): 480-748-1328



Welcome keith

10 Digit Phone Number

10 Digit Phone Number

Reference ID

Optional

Lookup

Bulk Lookups enabled with ZetX Account.

Request Demo [Here](#).

Enter up to 100 numbers, one per line.

Bulk Lookup



ENHANCED

It's coming...

Click HERE for the 411

- Interactive Call Balloons
- One Click Navigation
- Instant Call Reports
- Text Content Mapping
- Picture Mapping
- Video Production Software Included

What do you want do?



Start Time: 05/29/2016 11:36

|               |              |
|---------------|--------------|
| Target Number | 480-540-3461 |
| Direction     | Incoming     |
| Connected To  | 9287139167   |
| Duration(sec) | 07 (Seconds) |
| Tower         | 240          |
| Sector        | 2            |

Prev Call | Call Report | Next Call



Training - Register [here](#)

Upcoming Classes:

40 HOUR CRIMINAL INVESTIGATIONS USING CELLULAR TECHNOLOGIES

JUNE: FRANKLIN, MA 6 SEATS REMAINING



ASSOCIATION  
PROSECUTING ATTORNEYS



## Lookup Results:

| Number      | Wireless Number? | Carrier | Carrier Phone Number / Email | Carrier Fax  | Registered Name | Actions |
|-------------|------------------|---------|------------------------------|--------------|-----------------|---------|
| 14083756759 | Yes              | Sprint  | 800-877-7330                 | 816-600-3111 | LYON KEITH      |         |

Sprint Info

Legal Demand

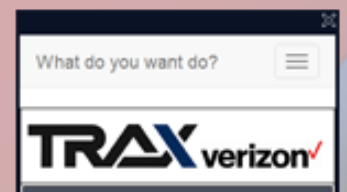
Preservation Letter

Pre-filled forms enabled with ZetX Account.  
[Request Demo Here.](#)

Look Up Another Number



# TRAX


- Interactive Call Balloons
- One Click Navigation




# ZETX – Carrier Info

[HOME](#) | [TRAX LOGIN](#) | [TESTIMONIALS](#) | [DEMO TRAX](#) | [FORUMS](#) | [SBP APPAREL](#)



[TRAX SUITE](#) | [TRAINING](#) | [FREE PHONE LOOKUP](#) | 

## Sprint



**6480 Sprint Parkway  
Overland Park, KS 66251**

Legal Compliance – 800-877-7330  
Compliance Fax – 816-600-3111

Call Detail Records (with Cell Site Data) – 18 months  
Sprint does not provide tower data for text messages  
Sprint does not provide text content  
Tower Dumps – 18 months  
Historical location data – PCMD (Per Call Measurement Detail)  
Real Time Locate – Estimated GPS pings via L-Site or by phone

[Look Up New Number](#)  
Please contact support for assistance with any questions or concerns.  
Email: [support@zetx.com](mailto:support@zetx.com)  
Phone: 844-367-9389

# ZETX – Preservation Order

|   |                              |
|---|------------------------------|
| ◀ <b>&lt;AGENCY NAME&gt;</b>            |                              |
| TO: Sprint Communications               | FROM: <FROM>                 |
| FAX: 816-600-3111                       | PHONE: <PHONE><br>FAX: <FAX> |
| PHONE: 800-877-7330                     | EMAIL: <EMAIL>               |
| SUBJECT: <b>PRESERVATION OF RECORDS</b> | DATE: <DATE>                 |
| COMMENTS:                               |                              |

18 USC 2703(f) Preservation Request in reference to Sprint Communications cellular number - (<TARGET>)

This fax serves as a formal request for the preservation of records and other evidence pursuant to 18 U.S.C. § 2703(f) pending further legal process.

You are hereby requested to preserve, for a period of 30 days, the records described below currently in your possession. You also are further requested not to disclose the existence of this request to the subscriber or any other person, other than as necessary to comply with this request. If compliance with this request may result in a permanent or temporary termination of service to the accounts described below, or otherwise alert the subscriber or user of these accounts as to your actions to preserve the referenced files and records, please contact me before taking such actions.

This preservation request applies to the following records and evidence:

1. All Call Detail Records, SMS Records, MMS Records, and Data Records, to include all related Cell Site Data
2. All Location information including estimated or known locations, location reports
3. All text messages (content) currently available
4. All picture messages (content) currently available
5. Any information on file in reference to the current subscriber, to include billing information, activation information, and device information.
6. Any document, files, or media currently in the possession of Sprint Communications in reference to the above listed customer number.

This request will be followed by a Court Order for the above listed information.

Thank you,





# ZETX – Legal Demand

- Property Description
  - [ZETX Word Document](#)
  - [CDAA Library](#)
- SW Affidavit / Template
  - [Handset - CDAA Library](#)

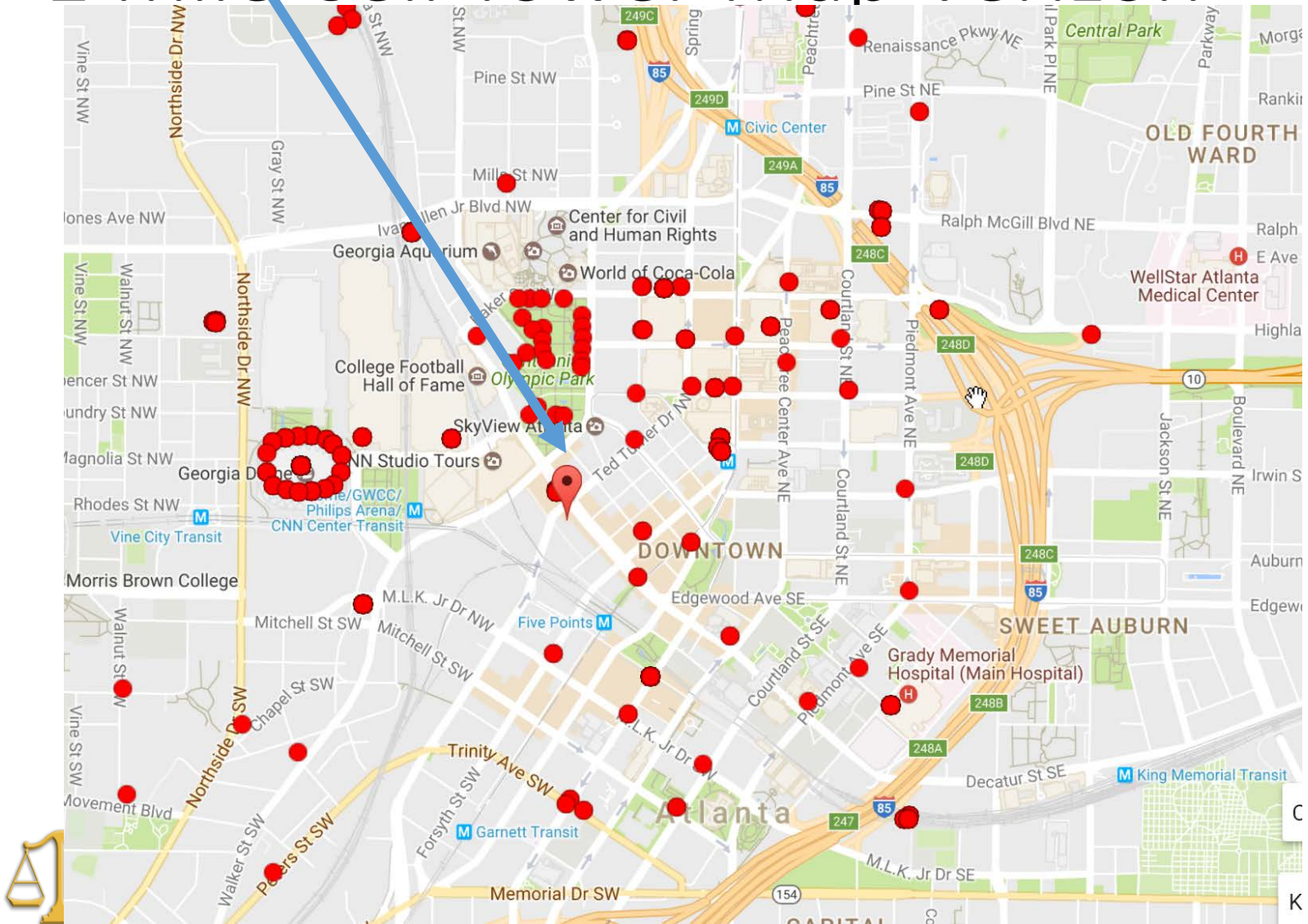
CALEA →

askcalea.fbi.gov/  
208.250.68.210

The screenshot shows the homepage of the Cell Site Database. At the top left is the logo "Cell Site Database" with a radio tower icon. At the top right is the NDCAC (National Domestic Communications Assistance Center) seal. Below the logo is a navigation bar with links: Home, Cell Site Map, Account, and Contact Us. The main content area has a large blue background with the text "Welcome to Cell Site Database" and "Tell us what you think" with a hand cursor icon. Below this is a section titled "Choose a carrier" with a grid of logos for various wireless carriers: Appalachian Wireless, Cricket Wireless, Mid-Rivers Wireless, Revolver Wireless Historical, AT&T, Cspire Wireless, Mobi, Sprint, Bluegrass Cellular, ClearTalk Wireless, Mohave Wireless, T-Mobile, Carolina West Wireless, iWireless, Nextel, U.S. Cellular, Cincinnati Bell, Immix, Telos Wireless, Verizon, Claro, MetroPCS, and Open Mobile. At the bottom, there is contact information: "For help or questions, please contact the help desk toll free at 1-855-30-NDCAC (1-855-306-3222) or email: [askndcac@ic.fbi.gov](mailto:askndcac@ic.fbi.gov)".

# We Are Here

## 1 mile Cell Tower Map Verizon



# ANOTHER Resource

- Where do we serve the paper
- Resources
  - [www.search.org/programs/hightech/isp/default.asp](http://www.search.org/programs/hightech/isp/default.asp)

The ISP List is a database of Internet service and other online content providers that will help you get the information you need for your case. For each Internet Service Provider listed, you'll find the legal contact information and instructions needed to serve subpoenas, court orders, and search warrants.

The ISP List is a law enforcement community effort, meaning that while it may reside on our website, it belongs to us all. If you come across newer information than what we have listed here, please [let us know](#) and we'll update it. If you discover an ISP that we don't have in the database, [let us know](#) and we'll add it.

We know that getting the information you need from Internet service and other online content providers can be challenging. If you need assistance in this area, let us know through our [Assistance & Training Center](#). We can answer your questions about submitting a legal request and we can help you decipher the results.

Select an ISP from the drop-down menu to access contact information:

- Verizon Wireless Legal Compliance ▼
- UUNET (MCI)
  - UUNET Technologies - Verizon
  - Valve
  - Vamp Communications
  - Vampire Freaks
  - Various, Inc.
  - Various, Inc.
  - Vault Telephone, Inc
  - Veeay.com
  - Venmo.com
  - VeriSign Worldwide Headquarters
  - Verizon FiOS
  - Verizon Internet Services
  - Verizon Landlines
  - Verizon Landlines(ID,IN,NC,NV,OH,OR,SC,WA,CA,FL,TX
  - Verizon Online
  - Verizon Online in Vermont, Maine and New Hampshire
  - Verizon Telematics
  - Verizon Terremark (Cloud Service)

## In This Section

- Publications &
- Surveys
- Podcasts
- ISP List
- SEARCH Inve
- SEARCH Inve
- Repository QA
- IT Security Sel
- Public Safety F
- High-Tech Crim
- Information Sh

An additional  
information is  
[Directory of S](#)

Find ECSP Records

# Where to Find Records SEARCH.ORG

Select an ISP from the drop-down menu to access contact information:

ISP Quick Search ▼

## Verizon Wireless Legal Compliance

**Contact Name:** Custodian of Records  
**Online Service:** Verizon Legal Compliance  
**Online Service Address:** 180 Washington Valley Road  
Bedminster, NJ 07921  
**Phone Number:** 800-451-5242  
**Fax Number:** 888-667-0028  
**Note(s):** When submitting a subpoena, must be addressed to CELLCO PARTNERSHIP, VERIZON WIRELESS, or they will not be accepted.

1-800-451-5242 above, use opt 1 for Mailing addresses; opt 2 for subpoenas, warrants, opt 3 for court ordered surveillance, opt 4 for court orders. Corporate name is: Cellco Partnership d/b/a Verizon Wireless.

Preservation Letters Fax: 888-667-0026  
Subpoenas Fax: 888-667-0028  
Court Orders Fax: 888-667-0026  
Electronic Surveillances: 800-267-9129  
Exigent requests: 800-345-6720.

**Last Updated:** December, 2013  
**Previous Information:** In Oct. 2013 "Notes" was: Subpoenas Fax: 888-667-0028; Court Orders Fax: 888-667-0026; Electronic Surveillances: 908-306-7487; and Exigent requests: 908-345-6720.



# ECSP Law Enforcement Portals

## example: Sprint's L-cite



### Create Request

Step One ::

Step Two ::

Step Three ::

Step

Please input the TARGET information:

Phone Number

Please select the request type(s):

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Subscriber information                              | <input type="checkbox"/> Call detail records   |
| <input type="checkbox"/> Direct Connect Detail Report (Nextel Walkie-Talkie)            | <input type="checkbox"/> Ready Link call detail records                                      |
| <input type="checkbox"/> Call detail records by cell tower                              | <input type="checkbox"/> Call detail records on prepaid phone cards                          |
| <input type="checkbox"/> Call detail records on a calling card (not prepaid)            | <input type="checkbox"/> Call detail report for toll and toll free wireline long distance    |
| <input type="checkbox"/> Future call detail records                                     | <input type="checkbox"/> Transaction records for wireless Internet usage                     |
| <input type="checkbox"/> Stored voice mail reproduction                                 | <input type="checkbox"/> Stored text message reproduction                                    |
| <input type="checkbox"/> Stored communications on Sprint PictureMail server             | <input type="checkbox"/> E-mail  |
| <input type="checkbox"/> Court Appearance   | <input type="checkbox"/> Payment Information   |
| <input type="checkbox"/> Search for numbers that called a specific number               | <input type="checkbox"/> Ready Link group list   |
| <input type="checkbox"/> Account Takeover   | <input type="checkbox"/> *57 Request   |
| <input type="checkbox"/> Switch dump for Direct Connect calls                           | <input type="checkbox"/> List out "other" items regarding subscriber information (non-basic) |
| <input type="checkbox"/> Bill Reprint   | <input type="checkbox"/> Retail store surveillance video                                     |
| <input type="checkbox"/> Precision location (GPS coordinates by longitude and latitude) | <input type="checkbox"/> Precision location / 3rd Party (GPS coordinates for a 3rd party)    |
| <input type="checkbox"/> Pen Trap and Trace   | <input type="checkbox"/> Wiretap   |
| <input type="checkbox"/> Others   |  |

# Tracking a Mobile Device

- A Handset can be located or tracked
- using several different methods:
- Historically
  - Tracked via the records of the carrier
  - 3<sup>rd</sup> Party Applications
- Real Time
  - Tracked by the carrier
    - Ping/PEN Register
  - 3<sup>rd</sup> Party Applications



# CSLI – CDR's

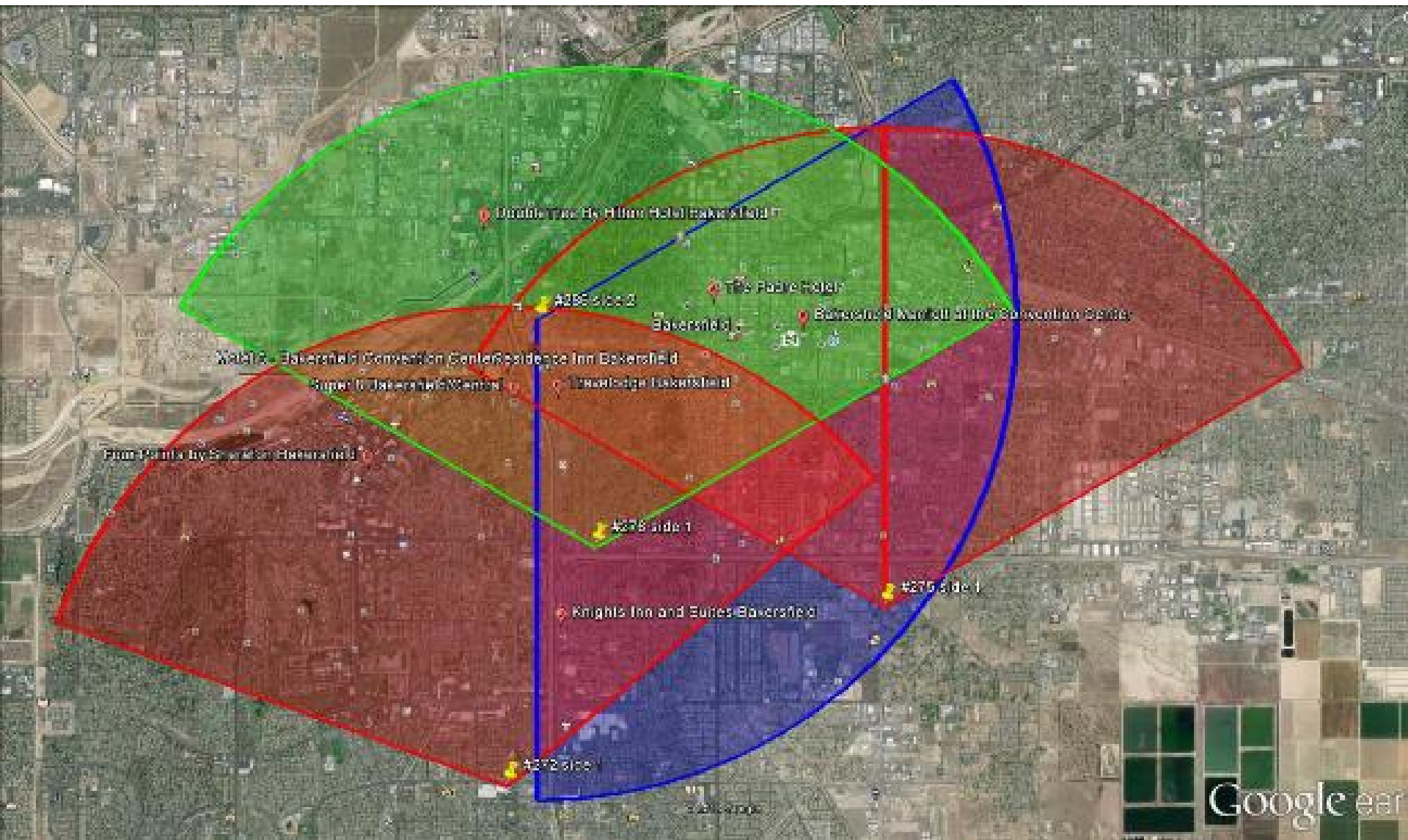
- Location info in CDR's v GPS
  - GPS
    - Precise
    - Real time
  - CDR
    - General area, IE Tower
    - Historical
- Difference has allowed lower burden in past
  - 2703(d) orders
  - Will this difference be true going forward



# More Specific Mapping is Available Historical GPS Information

- Verizon-RTT (Real Time Tool) 7-10 days gives location info for all activity including long/latitude
- Sprint-PCMD Per call measurement data
- AT&T-Nelos
- T-Mobile – ?tru-call?
- Must act quickly

# Asked to Find a Trafficked Juvenile Based Upon CDR's





# DEALING WITH ECSPs

# KIK

- Contact eMail and Preservation Requests
  - [Lawenforcement@kik.com](mailto:Lawenforcement@kik.com)
  - Kik.com/lawenforcement sample request, anmd info
- Note
  - Content data - no message data, KIK does not keep it
- Requirements
  - Need valid username
- 
- US Legal Process Will Get
  - Subscriber Name (unverified)
  - Device info
  - IP addresses associated with account creation/updates ...
  - IP logs - 30 days
- MLAT
  - Transaction logs
  - Images/video (short time)
  - Roster logs – who they are chatting with

# GOOGLE

- Contact eMail and Preservation Requests
  - [Uslawenforcement@google.com](mailto:Uslawenforcement@google.com)
- New Law Enforcement Response portal 9/2015
  - <https://support.google.com/legal-investigations/contacts/LERS>
  - Submission form – fill it out and not with “unknown”
  - Secure submission
  - Dashboard to view past/pending cases
  - Download link when evidence is ready
  - FAQ
  - Law Enforcement Guide
  - Exigency 650-253-3425 and leave message or edrlawenfoircement@google.com
- Note
  - They prefer 1 SW per case, rather than 10 separate ones
  - Response can be directed to another LERS user
  - Possibly a Subpoena for “What Google Services Are Used”
  - Follow-up with SW for services desired
- Requirements
  - Need Account Name – “The Single Entry Popint For All Services”
- Useful Links
  - <https://www.google.com/settings/takeout>
  - <http://Google.com/transparencyreport>
  - <http://www.google.com/policies> - privacy policies

## Google Services

Youtube

Hangouts

Chat

gMail

Android

Google Wallet

Voice

...

Below is a fictitious example of the Gmail subscriber information and login/logout IP address production.

Name: John Doe  
e-Mail: johndoe@gmail.com  
Services: Android, Gmail, Google Calendar, Google Drive, Google Play, Google Voice, Google Wallet, Google+, YouTube  
Recovery e-Mail: Jane.Doe@gmail.com  
Created on: 2014/10/15-05:59:43-UTC  
IP: 33.333.33.33, on 2014/10/15-05:59:43-UTC  
SMS: 555-867-5309 [US]  
Alternate e-Mail(s): John.Doe@gmail.com  
Google Account ID: 12345678910

| Time                    | IP Address   | Type   |
|-------------------------|--------------|--------|
| 2014/10/30-11:18:35-UTC | 11.111.11.11 | Login  |
| 2014/10/29-23:27:37-UTC | 22.222.22.22 | Logout |
| 2014/10/15-05:59:43-UTC | 33.333.33.33 | Login  |



# Verizon

- Verizon Security Assistance Team
  - 800-451-5242

- Notes

- 300,000 subpoena/SW a year
  - Goal is 14 day response
- Do not maintain browsing history
- Will confirm accounts over phone
- And/Or Connectors
  - John Smith or anyone at 123 elm St or billed to SSN 123-45-6789
- Be approximately specific
  - Call received at approximately 12:30 as opposed to 12:30:25
- Check records when received for accuracy
- If there was a preservation request mention it in a cover letter
- Who is the requestor and their contact info, and maybe a backup

## Verizon Services

Wireless

Landline

AOL Inc.

GTE

MCI

EdgeCast

car-net

Verizon vehicle



# APPLE

- Lisa Olle, global privacy and law enforcement compliance manager
- 408-862-8888 Lisa's desk phone
- olle@apple.com
- LEO Guide <http://images.apple.com/privacy/docs/legal-process-guidelines-us.pdf>
- 
- subpoenas@apple.com
- 
- exigency
- 408-974-2095
- exigent@apple.com
- suicides
- findmyiphone requires password reset
- 
- User notice
- w/o non-disclosure it is w/I 10 days of service
- w/o non-disclosure exigent notice given after 90 days





thank you!