WebMap

CELL PHONE DATA ANALYSIS FOR ATTORNEYS, INVESTIGATORS, LAW ENFORCEMENT

WebMap brings all the cell phone data in a case together: Carrier CDR and Timing Advance records, Cellebrite extractions, Facebook returns, and location data from pen traps, pings, vehicles and license plate readers. It quickly organizes the records and maps them on Google Earth and produces Excel analysis reports. You spend your time on the items that matter. Optional AI analysis goes further. It reads the reports, affidavits and transcripts alongside the phone data and creates a detailed report that flags inconsistencies and unsupported claims, and tests theories, each tied to the exact source record.

WHAT WEBMAP DOES

Carrier records to maps and reports	AT&T, T-Mobile and Verizon call detail, data session, timing advance and RTT files become Google Earth maps (tower locations, sectors, phone locations with confidence circles, timing advance and RTT arcs, color-coded, with a detailed pop-up for each point) and Excel reports, plus an interactive heat map with a play/pause timeline. Times are converted to the local time of each location automatically. For timing advance and RTT files, Speed Flags highlight movement between records that implies unusual speed, and Gap Analysis lists periods with no records.
Cellebrite phone extractions	The UFDR Case Extractor, a Windows desktop program, reads the extraction on your own computer. The UFDR never leaves it. Only the location records and text messages you choose to send reach WebMap. The result is a Google Earth map with locations in toggleable color folders. The extractor can also save everything it finds (web history, calls, contacts, media catalog and more) to an Excel workbook without using the internet.
Messages placed on the map	Phone and Facebook messages are matched to the carrier's records so each message can be shown where the phone was when it was sent or received. You get an Excel workbook and a Google Earth map with one folder per conversation, plus a Messages by Thread workbook that reads in order, like the conversation itself.
Facebook returns	Reads the Meta business records return (index.html and preservation pages). Messenger conversations are rebuilt thread by thread. Every other artifact in the return, such as account information, IP addresses, sessions, groups, friends and photos, becomes its own Excel worksheet, with an Index sheet that also lists what the return did not contain.
Other location data	Import and map any CSV, TSV, text or Excel file with a latitude, a longitude and time such as pen register and trap and trace returns, pings, vehicle and GPS tracker data, LPR hits, or a spreadsheet you built. Columns are detected automatically and can be changed. You select the time zone. The output is a Google Earth point for every row and an Excel workbook that lists any rows that could not be used.
Estimated route	Tick one box and WebMap also draws the phone's most likely path, trip by trip, as a Google Earth route with time labels. Routes along roads, parts where the records do not show which road, and straight-line gaps are in separate folders you can switch on and off. Fitting to roads is available where road data is installed. An estimate, not a recording of the route.
AI case analysis	Upload reports, affidavits, transcripts and notes. The AI checks their claims and theories against the phone data and flags contradictions and gaps. Leads to verify, not findings. Off unless you turn it on. Details later in this sheet.

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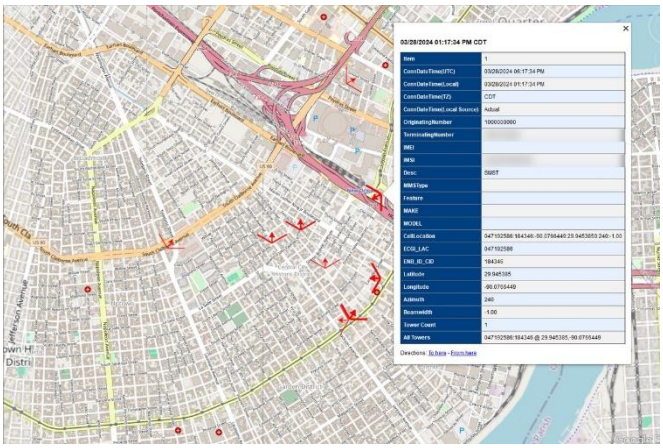
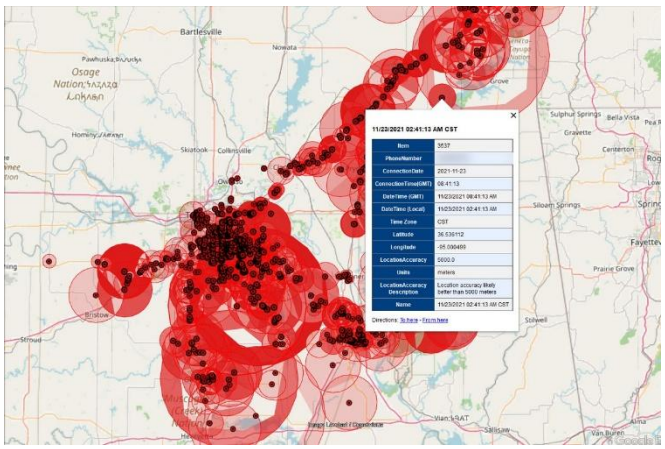
SAMPLE OUTPUTS



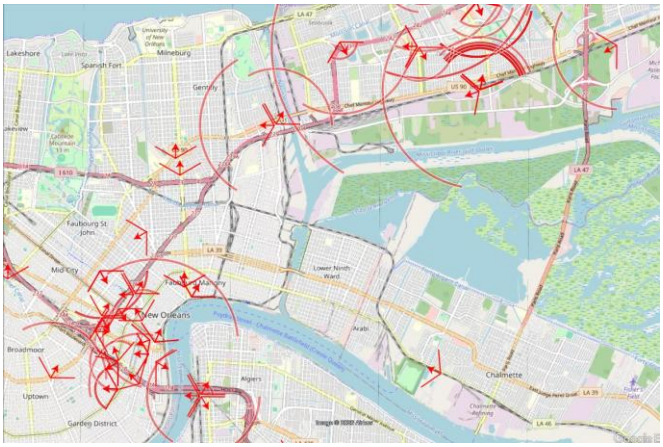
Carrier CDR

Call, text and data records are placed on the map, with sector direction and a full pop-up for every record.



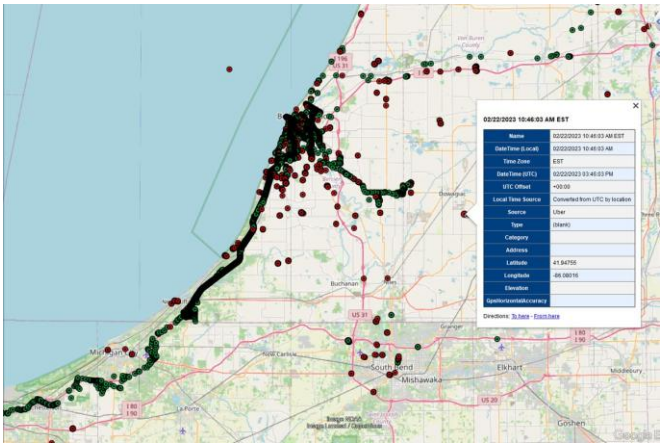
Timing advance: phone locations

Phone locations with confidence circles show how precise each location is.



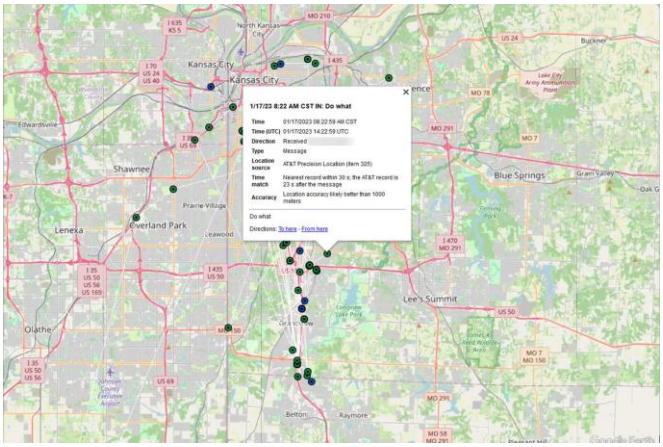
Timing advance: tower arcs

Tower sectors with timing advance arcs showing how far the phone was from each tower.



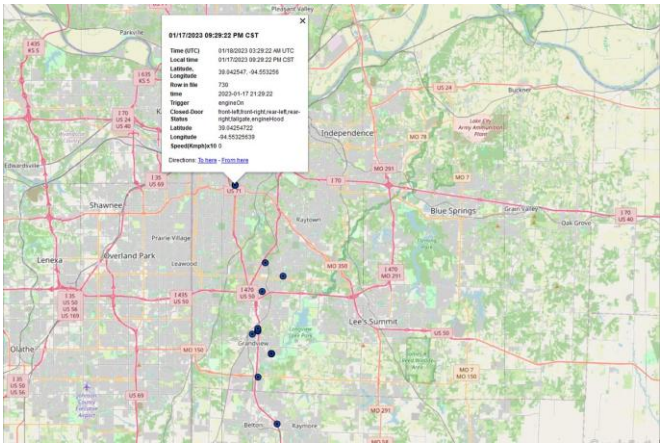
Cellebrite locations

Locations from a UFDR extraction, in color folders you can switch on and off.



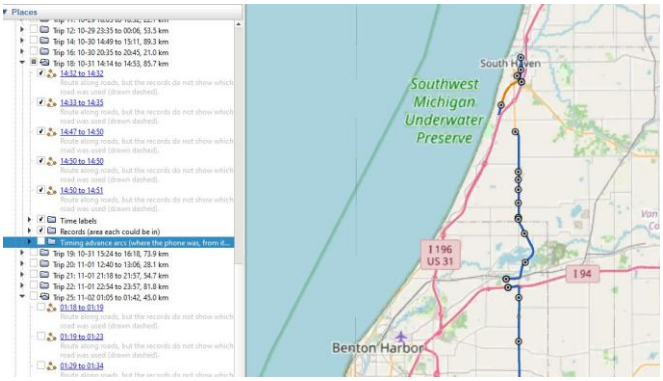
Messages on the map

A message placed where the phone was when it was sent, with the match shown in the pop-up.



Other location data

Vehicle, GPS and license plate reader data, one point for every row in the file.



Estimated route

How to read it

Solid blue is the route along roads. Dashed orange is a route along roads where the records do not show which road was used. Straight-line gaps have their own folder.

Each trip is a folder with its own time labels. Tick or untick a trip, or a kind of line, to show only what you want.

It is an estimate from the records' times and places, not a recording of the route.

Maps shown in Google Earth Pro. Each point opens a pop-up with the details of that record. Sample data; identifying details in the pop-ups have been masked.

AI-ASSISTED ANALYSIS (UNDER ACTIVE DEVELOPMENT)

An AI-assisted analysis feature has recently been added and is currently under active development. Feedback is welcome. Users can upload transcripts, PowerPoint presentations, police reports, investigative notes, case theories, and other text-based materials. The AI identifies factual claims and compares them against the available evidence, timelines, and imported datasets. It evaluates investigative theories against the underlying data, helping identify contradictions, unsupported assumptions, evidentiary gaps, and areas that may warrant further examination.

Key AI capabilities include:

- Claim extraction and validation against case data
- Timeline consistency analysis
- Investigation theory testing
- Conflict and contradiction detection
- Identification of missing evidence and research opportunities
- Cross-referencing multiple data sources and documents

The goal is to assist investigators in systematically validating assumptions, uncovering inconsistencies, and focusing attention on areas requiring additional analysis.

SUPPORTED FILES

AT&T	CDR (ReportAU), TA Phone (ReportLoc), Timing Advance towers (ReportTA)
T-Mobile	4G and 5G CDR, Data Sessions, TA Phone, Timing Advance towers (with the LTE cell-site list)
Verizon	4G VoLTE CDR, TDR2 and TDR5 data sessions, 5G Core Voice, RTT Phone, RTT towers (with the cell-site file)
Cellebrite	UFDR extractions through the UFDR Case Extractor: locations and messages
Facebook	Meta business-records return (index.html and preservation pages)
Other	CSV, TSV, TXT, XLSX and XLS files with latitude, longitude and time

HOW IT WORKS

1. **Upload.** Choose your carrier and file type and upload the file, or send phone locations and texts from the extractor. Cellebrite messages are added to a carrier run with a checkbox, and Facebook returns and AI analysis each have their own choice.
2. **Run.** Press Run Pipeline. Choose a date and time range if you want only part of the data. Processing happens in memory while you wait.
3. **Download.** Receive one zip file with the Google Earth KML maps and Excel reports. Open the maps in Google Earth Pro; every point has a pop-up with its details.

PRIVACY AND DATA HANDLING

- **Processed in memory.** Uploaded files and generated results are not retained or shared. Results come back to you as a zip file.
- **Cellebrite stays with you.** The extractor reads the UFDR on your computer. Only the locations and texts you send leave it, over an encrypted connection.
- **Verified sign-in.** Access is by verified email address. The only data kept is the email address and access times, for security and administration.
- **AI is opt-in.** Before anything goes to the AI service, Social Security numbers, card numbers, birth dates, driver's license numbers and password phrases are removed. Photos and password, card and cookie data are never sent. The AI provider does not use the data for training. You can also choose to withhold message text.

ACCESS AND LICENSING

- **Free 7-day trial** at cellphoneforensics.net for each user email, starting at first sign-in, so you can try it on your own files.
- **Call for pricing: 650-279-2403.** Licensing is by invoice or purchase order, with no online payments. The extractor uses the same WebMap sign-in and renews about every 30 days.
- **Requirements.** A current web browser; Google Earth Pro on desktop (free, recommended) to open the maps; Excel for the reports; a Windows PC for the extractor. Nothing else needs to be installed.

Contact ZK Services support@zkservices.net | 650-279-2403 | www.zkservices.net/software

Video tutorials, and a request form for an online demo, are at www.zkservices.net/software. Cell phone expert analysis and testimony: www.zkservices.net/forensics

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