Alabama NENA 2022





Topics

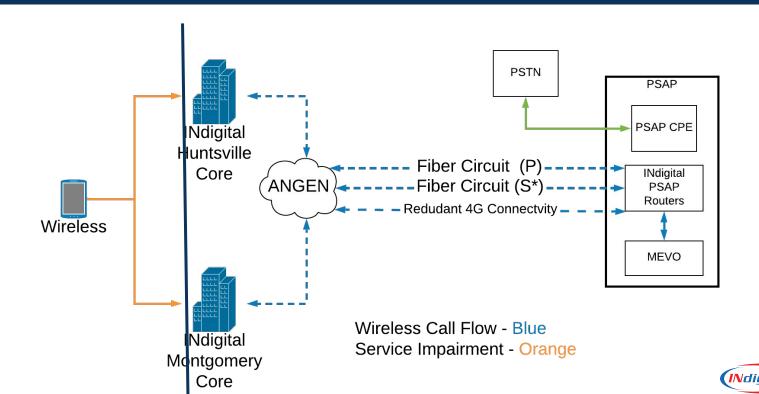
- 1. Verizon Wireless Update
- Permanent and Special Event Geo-Routing
- 3. Upgrades and Changes
- 4. INdigital ALI
- 5. Policy Routing
- 6. Database
- 7. Texty
- 8. Network Reporting Update
- 9. BREAK
- 10. Cybersecurity Awareness with Bob
- 11. Cybersecurity Roundtable



Verizon Call Delivery Issue



Verizon Issue 10-04-22



Verizon Issue 10-04-22

We began receiving notifications around 08:30 a.m. that some 911 calls were not being delivered. It was determined there was a delay in delivering some calls and some calls were dropping before reaching the PSAP. Some calls delivered were met with one way audio issues.

INdigital worked throughout the day with Verizon and offered the alternate delivery of an 800 number delivery.

The trouble continued throughout the day affecting not only Alabama but other states as well.

Verizon reported the issue temporarily resolved just after 6:00 p.m.



MEVO - ONE CALL NOW

All Mevo phones have been added to the One Call Now Notification Platform

This allows front line personnel to receive special notifications directly.



They will also receive one monthly test call.



Geo-Spatial Call Routing



Goal of NG 911

- •Build a redundant, reliable, NG9-1-1 ESInet
- Next Generation 911 services provided:
 - Geo based routing
 - Location services
 - Legacy E9-1-1
 - Interoperability
 - Text for 9-1-1
 - Service visibility/monitoring/ compliance
 - Provide a backup safety net for 9-1-1 services



The Simplified Current (Transitional) Method of Geo-Routing

- 1. The call comes into the network and is held for 8 seconds.
- 2. The database is dipped.
- 3. Call is then routed to the appropriate PSAP based on the coordinates that are presented in the database dip.



The Simplified End-State Method of Geo-Routing

- Call comes into the network with an attached PIDF-LO (Presence Information Data Location Object) XML document.
- 2. The PIDF-LO is crossed-referenced with the Location Verification Function (LVF).
- 3. The call is routed to the correct PSAP based on the verified coordinates during the cross-reference.



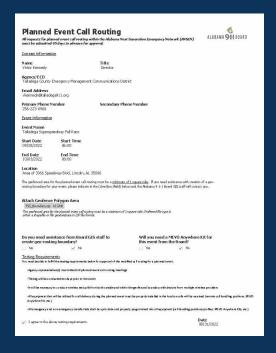
- Work needs to be done with the carriers and location providers to establish PIDF-LO handoff between carrier and network
- A spatial interface needs to be established to verify location data against the state GIS set.
- Call-Handling Systems must be upgraded to receive this new type of PIDF-LO based ALI.

How to get to the End State of Geo-Routing (Simplified)

Event Geo-Routing



INdigital Process for Event Geo-Routing Testing and Turn Up



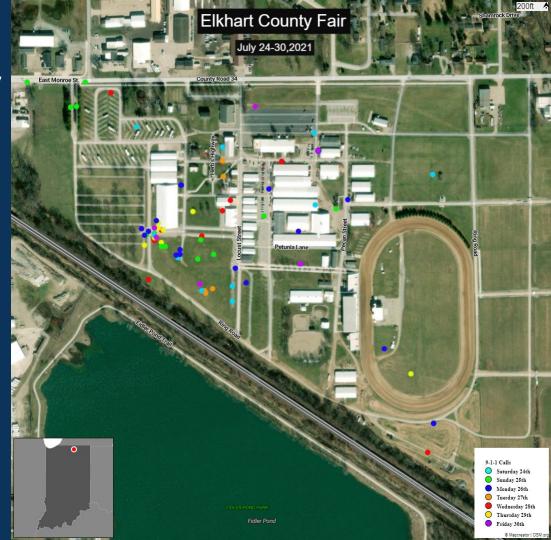
- 1. A request is filed with the State Board at least 45 days in advance of an event.
- Build the boundary and upload it to the ESRP.
- 3. Have someone inside the boundary to do test calls with AT&T, or T-Mobile. Verizon doesn't test correctly.
- 4. Route calls to the special event PSAP.
- Test transfer ability to primary PSAP.
- 6. Test transfer ability from primary PSAP.
- 7. Test admin dialing and transfers
- 8. Turn off the boundary.



2021 Elkhart County Fair

In 2021 INdigital set up a geofence around the area of the county fair to push 9-1-1 calls to a centralized command and control center.

During the 10 days of events, the fair hosted performers such as ZZ Top, We are Messengers, Tracy Byrd, Chris Lane, and Darci Lynne. The Incident Command Center managed 157 9-1-1 calls.



Geo-routing Using MEVO Anywhere

Rock the South

Rock the South, an outdoor country music event, occurred on August 13th and 14th.

During this event, calls within the geofence were routed to a MEVO Anywhere Kit that was on site.

The boundary was activated and deactivated each day via a call to the NSOC from the personnel on-site.

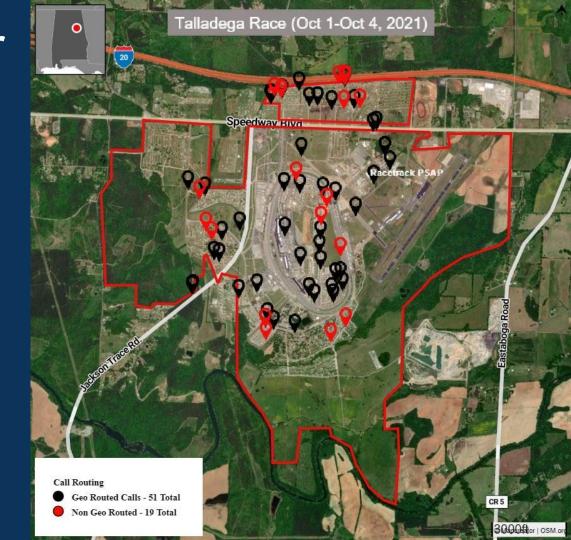




Geo-routing to other PSAPs

Yellawood 500

A total of 73% of the calls were geo-routed during the event

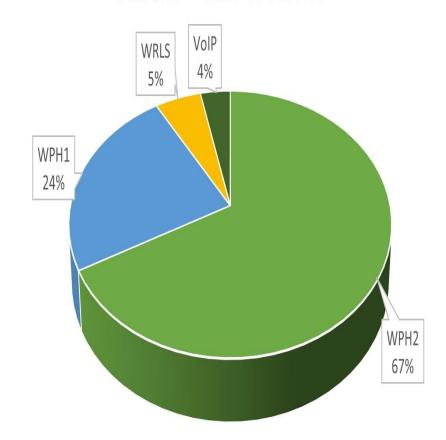




Oakland County

May and June 22 Data

Oakland - Class of Service



Oakland County

100% of calls over the 8 second threshold were from Verizon

Geo Routed Calls(Under 8 seconds response time from location services):	50,792
Calls Falling back to tabular (over 8 seconds):	141
Calls not able to process to location services(landline ect)	4,706
Total Calls in sample	55,639

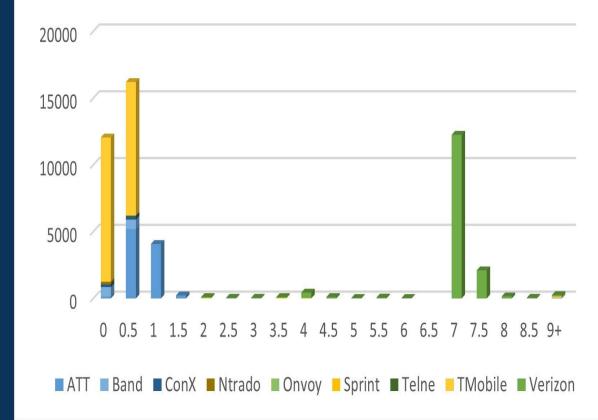


Oakland

Carrier Comparison

Majority of Verizon calls are over 5 seconds for ALI response

Carrier Comparison Oakland

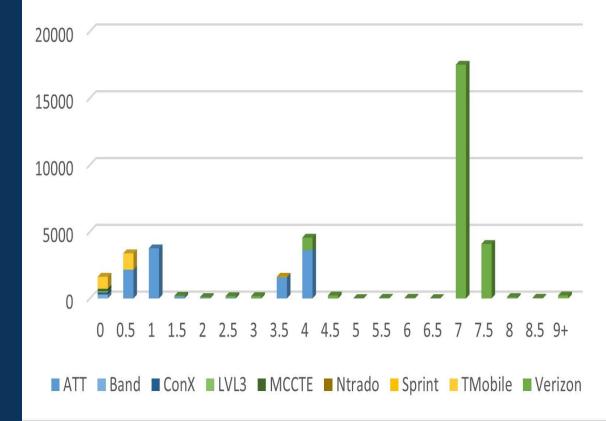


Counties of Southern Illinois

Carrier Comparison

Majority of Verizon calls are over 5 seconds for ALI response

Carrier Comparison Southern Illinois Counties



Oakland County

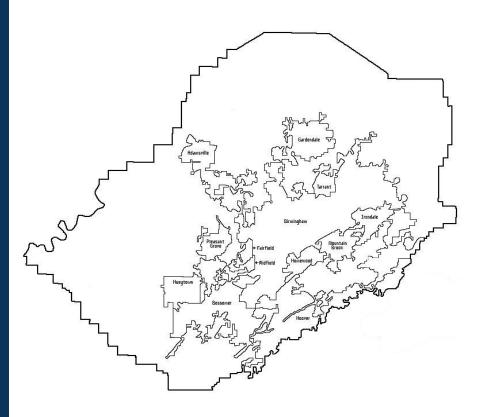
Pre-Georouting		
	Total	Percentage
Calls	163783	100.00%
Transfers	1354	0.83%
Post-Georouting		
	Total	Percentage
Calls	146781	100.00%
Transfers	952	0.65%

A .17% decrease in transfer volume





A 38% decrease in transfer volume





WiFi Calling: Lessons Learned



Knowledge Based on Testing of WiFi Calling

- 1. Even if airplane mode is on, a 9-1-1 call attempts routing over the cell network (Normal routing to PSAP, Normal ALI).
- 2. If no cell network is available, call routes based on network IP and displays pre-programed address from phone. (Normal routing to PSAP, Customer-programmed location).
- 3. If no location data is available via local network, call routes based on customer-programed location (Customer-programmed routing and location).

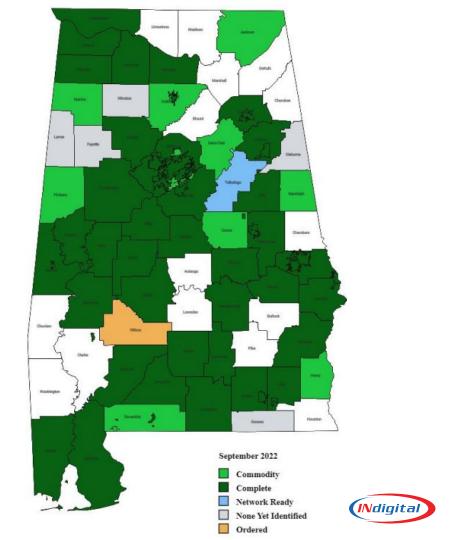


Core Services Upgrades and Changes



Lumen Circuit Replacement

as of September 1, 2022



Voiance Language Services Deployment as of September 1, 2022

Admin Accounts have been assigned



FirstNet Conversion

as of October 6, 2022

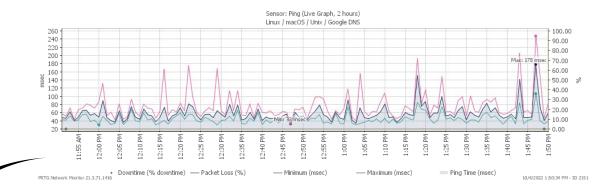
FirstNet Conversion





Starlink

- Starlink testing for call delivery
- INdigital has been testing independently
 - We have been able to test and route 911 calls over Starlink







Texty and TAG

Texty/Tag Pre-Release 17.6

Default routing update by area code - expected in October

Texty Release 17.6 - Expected Q4 2022

- Bug fixes
- W3W identification and display
- Alarm message formatting
- Browser status check
- Graceful logout







ALI Formats and Alternate Routing



Information About ALI Formats

- All ALI Information comes from the carrier.
- As technology has changed, more information has been provided from carriers than what can be contained in standard ALI format configuration - 528 characters.
- INdigital provides a format that is roughly equivalent to double the character count of previous formats - 1010 versus 528.
- Vesta is character limited to 800 characters, and INdigital also has a format that can accommodate this limitation.



Legacy ALI Format

Wireless

(205) 511-2256 11:17 10/20

WIRELESS 911 CAL

LER

WALKER COUNTY AL 134 WPH2

AT&T MOBILITY

2055223923 P# 511-2256

ALT# 205-522-3923 LEC:ATTMO

-087.307878 +33.851945



INdigital ALI Format

Wireless

- Routing ESN
- Tower information
- Position Certainty
- Z (altitude) info
- Shows original call destination

```
205-394-8646
                CBN 601-678-2280
                                       VZW
10/20/2020
                09:15:34.0CDT
                                        WPH2
VERIZON
                                   ESN A121
                 W Puhmataha ST
909
Township:
Butler
                                          AL
Comments:
SE SECTOR
                          Updated Position
X = -088, 222446
                           90% sure caller
Y = +032.089359
                        within 45.6 meters
Z=22+/-17.032997018360
LAW:
      Responding agencies do not
FIR:
      populate for wireless calls.
EMS:
LocTechn: Unknown
NOW: 10/20/2020 09:16:12.9
Originally routed to CHOCTAW CO
```



Legacy ALI Format

Wireline

044 Cross (CDR 275 8086 (FR 1 01 CDR (CDR)	Trans Status (Mergino ACD Type (Meding safe Chare	Energency Colo Wolfing 1 Energency Colo on Hold 1 Action Colo Walking 1
Request ALI Recess Call	CONTRACT OF	THERE SHARE
(320) 235-9088 (9/15/10 0	9:37
KANDIYONI CO OFFI	CES	
2201		
NE 23 ST		
WILLMAR		MB
	DUSH	0
70.00	7EL-	TSWC
0422	70000	10.00
WILLMAR PD < KND	1>-	
WILLMAR FD		
WILLMAR AMB		
Info:		
1776/0		



INdigital ALI Format

Wireline

- Physical Address and name of business (if applicable)
- Responding ESN
- Responding agencies

```
251-847-2911
                CBN 251-847-2911
                                     MILRY
10/20
                12:42
                                      BUSN
WASHINGTON CO E911 SERVICE
                                  ESN 266
435
                HEARN DR
Township:
CHATOM
                                        AL
Comments:
     No lat/longs are given
     for wireline calls
LAW: CHATOM
FIR: CHATOM
EMS: AMSTAR
LocTechn:
NOW: 10/20/2020 12:42:27.442
Originally routed to
```



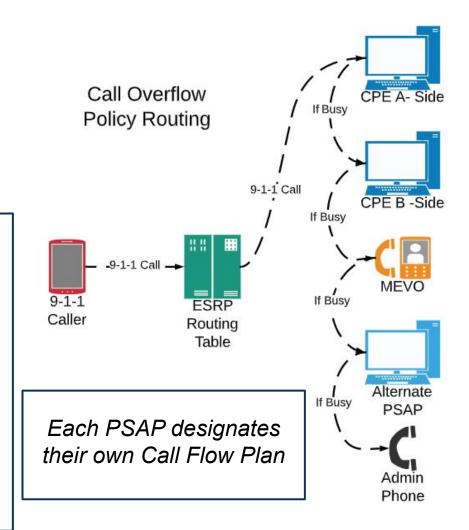
Policy Routing



Policy routing (Basic PRF)

(PRF = policy routing function)

- Failover routing between CPE Controllers
- Failover routing options
 - MEVO
 - Admin lines
 - Neighbors
- 800# Failover routing



INdigital Regional Training

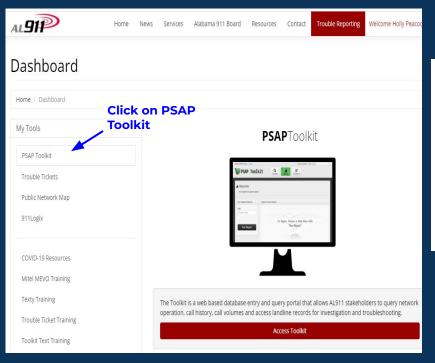
Conducted in coordination with the Alabama 911 Board

- Free one day training offered in various regions of the state - lunch provided
- Open to all employees New Employee Training,
 Managers, GIS Staff or as Refresher Training
- AL911.net/Toolkit, MEVO, Logix, Texty

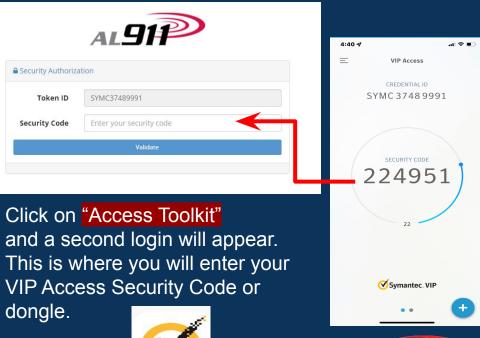




PSAP Toolkit requires a 2nd authentication. Remember, IF you get a new cellular phone, this application must be redownloaded and the Token ID submitted to a Service Manager to update the system.



Otherwise, you will not be able to gain access to PSAP Toolkit.



Trouble Tickets

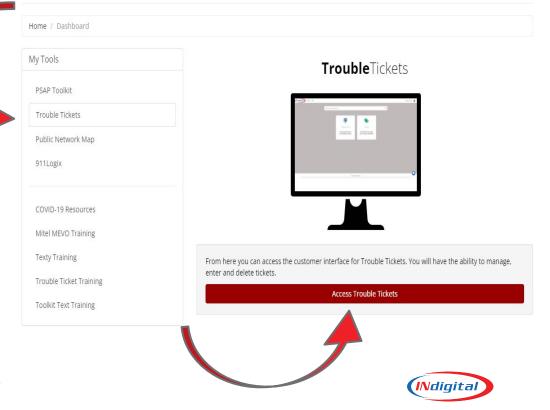
 Click on trouble tickets under the dashboard.

 Access Trouble Tickets in red bar will appear then 2nd authentication



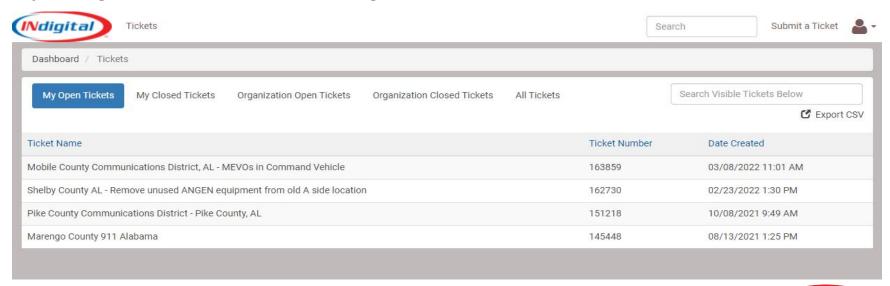


Dashboard





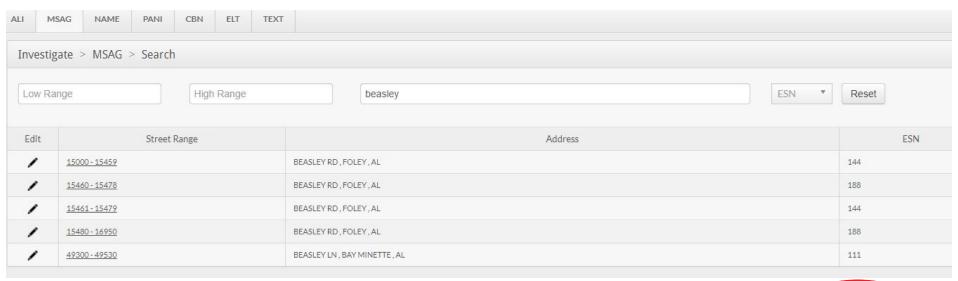
Clicking on "Tickets" top left will display tickets that have been opened by you. You have the option to see open, closed and organization tickets if you have that permission. You can also search the tickets by clicking on the ticket number or inserting in the search window.





MSAG Search

Search MSAG by low and high range or just by street name. Click on edit (//) to make changes.



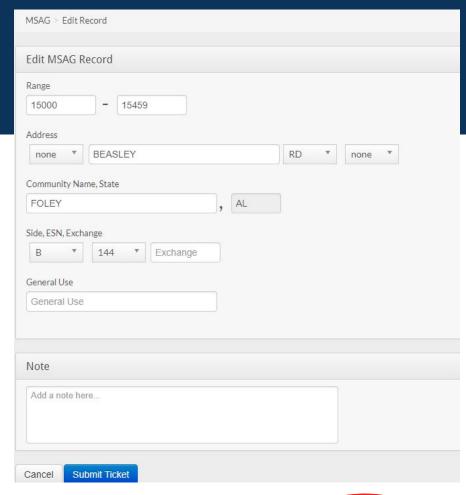


Edit Record

If a question arises from a submission, database will follow up with a team support ticket and the agency will be notified.

Our Database Team will also generate tickets to your PSAP occasionally when an outside request is made to change your MSAG, such as from a carrier or contractor.

Please respond as soon as possible. Accurate routing of 911 calls is dependent upon accurate data.





Screen Displays

911 Xfers button: Pre-programmed PSAP's for transferring of 911 calls. Local resources can also be programmed unique to each agency.

911 History button: Allows the ability to view call history on that MEVO. History of other calls in the PSAP can be found by pressing the All Calls button. By pressing the selected call, you may listen to the IRR or the instant recall recording, by pressing the Playback button.

Copies of calls may be requested by submitting a trouble ticket indicating date/time/phone number of caller. Reroute 911 button: Gives the PSAP the ability to move 911 calls from CPE to MEVO or the ability to "abandon PSAP" and move calls to another agency.





Bi-Monthly Indigital MEVO Testing

Bi-monthly MEVO testing is completed by one of the Alabama Service Managers. This test is completed to verify that connectivity to our network is stable and connectivity is good. Other periodic testing should be established in house at each PSAP. A Service Manager will call into the MEVO phone by using the 10 digit administrative number assigned. ** Remember, this is also a 9-1-1 phone and should be treated as such.

You represent the agency you work for!



MEVO Anywhere (MAK)



MEVO Anywhere is a 911 call handling system available to public safety agencies that works whenever and wherever necessary to dispatch remotely.

The system provides 911 and traditional telephone service for full-service 911 call handling.





With a MEVO Anywhere Kit you have the ability to....

- Process 9-1-1 and administrative calls
 - Reroute call delivery systems
- 9-1-1 call back from the push of a single button
 - Formatted ALI display
 - ALI data spills to CAD and MAP
 - 9-1-1 and administrative call history
- The ability to conference, transfer, barge, park active calls
 - Call logging and recording
 - Mapping interface





Gulf Coast Hangout Music Fest

Baldwin County utilized a MEVO Anywhere Kit during the Hangout Fest to deploy dispatchers to work the Music Fest.



Gulf Shores, May 2022



Inbound vs Outbound

Outbound - Calls generated to a citizen by the Telecommunicator

- If voice call is lost and unable to make contact a 2nd time by voice
- Allows for better use of a time by giving 9-1-1 the ability to text a caller who might have inadvertently dialed 9-1-1. This frees up the Telecommunicator to continue other operations.
- Does not tie up a 9-1-1 line.





Features in Release 17.5

Al Translation:

07:39:26 Location Event Received - View marker on map Latitude: 41,772035 | Longitude: -88,473291 Approximate location at center: Kane County, Illinois, United States hay un accidente en la 1ra y principal [Spanish --> English] there is an accident on the 1st and main O7:40:30 07:40:34 Al Translation Enabled - See translated message(s) above 118-003-5011 07:40:59 911-demo: is anyone hurt? [English --> Spanish] 911-demo: ¿alguien está herido? (630) 681-0001 si, manda una ambulancia [Spanish --> English] yes, send an ambulance O 07:42:04 911-demo: Type here, use enter to send text. Spanish 1014 Enhanced Location Transfer/Conference Exigent Circumstances Al Translation C Rebid Network Location

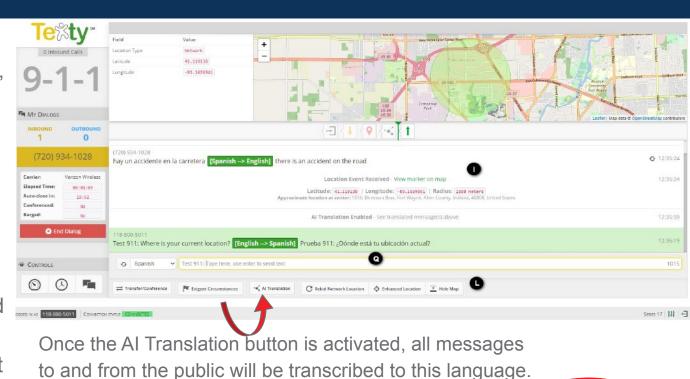
When communicating with texters of another language, the Al Translation feature can be turned on for the conversation. This function will attempt to identify the speaker's language and translate all incoming and outgoing messages.

There are over 100 different languages available on the Al Translation.



AI Translation

During both an inbound and outbound text session. when a message arrives that is not in English, the Telecommunicator can hit the "Al Translation" button located in the bottom toolbar of the screen (L). The message in the dialog area will then be translated and the drop down in the chat window (Q) will be set to the selected language.



The public will only see the translated message.





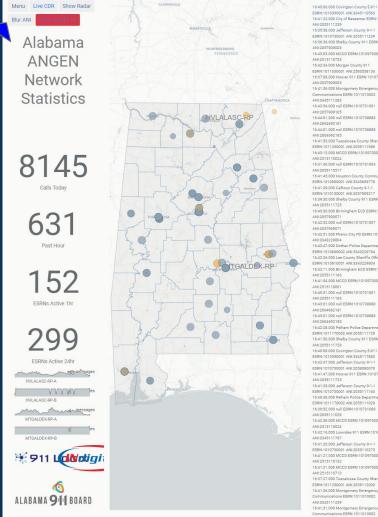
Options:

Menu will bring you to reports

Live CDR will toggle to previous map

Show Radar will Show Radar display weather overlay

Blur ANI will blur the Blur ANI phone number



ESRN:1010390001 ANI:3345110563 16:41:22.000 City of Bessemer ESRN:1010730003

ESBN-1010730001 ANI-2055111230 16:36:36:000 Shelby County 911 ESRN:101117000

ESBN-1011030001 ANI-2563558154 16:37:08:000 Hoover 911 FSRN:1010730000

16:41:36.000 Montgomery Emergence Communications ESRN-1011010002

16:44:01.000 null ESRN:1010738881

16:41:53 000 Tuacaloosa County Sheriff's Office ESRN:1011250001 ANI:2055111989 16:43:13 000 MCCD ESRN:101097000

16:41:46.000 null ESRN:1010731004

16:41:29.000 Calhoun County 9-1-1 ESBN-1010150001 ANI-205700021

16:42:47.000 Dothan Police Departmen ESRN:1010690002 ANI:3343229784

ESBN-1010810001 ANI-3343229804

16:40:51 000 mill ESBN-101073100

16:43:01:000 null ESRN:101073888 16:43:01.000 null ESRN:1010738888

ESRN-1011170002 ANI-2055111720 16:41:50.000 Shelby County 911 FSRN:101117000

ESPN-1010730001 ANI-2055111163

16:39:52 000 pull ESRN:1010731008 16-42-38 000 MCCD ESBN-101097000

16:42:16 000 Lownday 911 FSRN:101085000

16:41:26 000 Jefferson County 9:1: ESRN:1010730001 ANI:2055110275 16:41:21.000 MCCD ESRN:101097000

16:37:27.000 Tuscaloosa County Sheriff's Office

ESRN:1011250001 ANI:2055112009 16:41:26,000 Montgomery Emergency

16:41:31 000 Montgomery Emergency

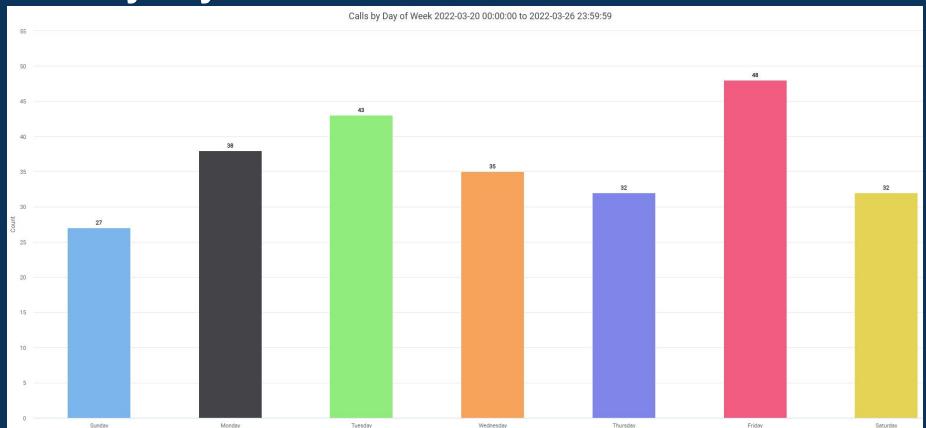


Various Reports Available





Calls by Day of Week



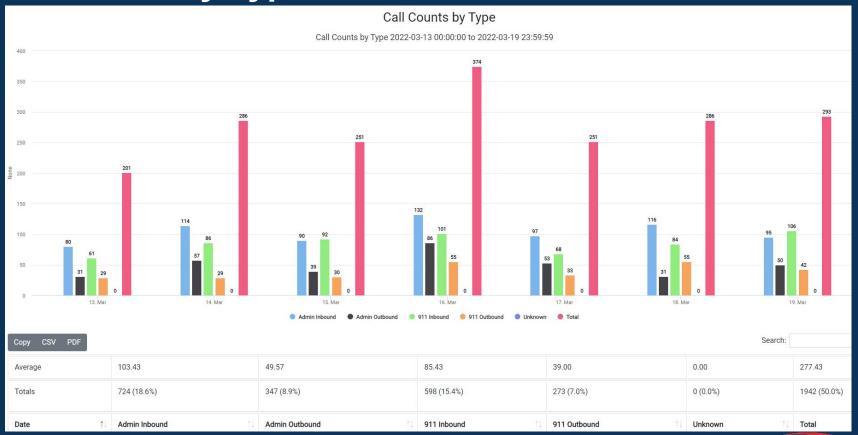


Calls by Hour





Call Counts by Type



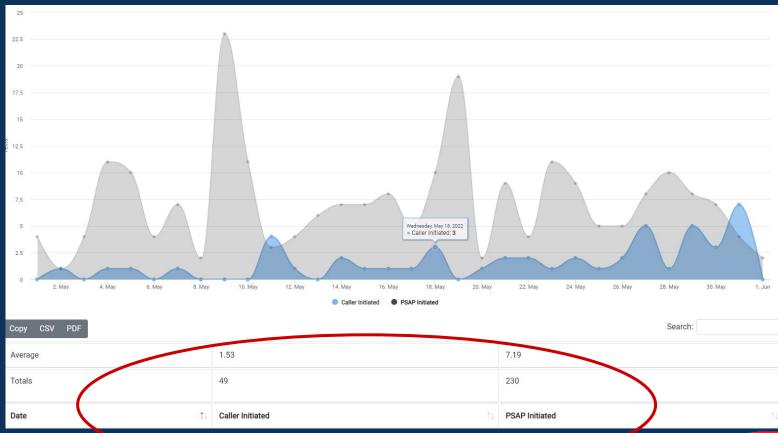


Average Ring Time





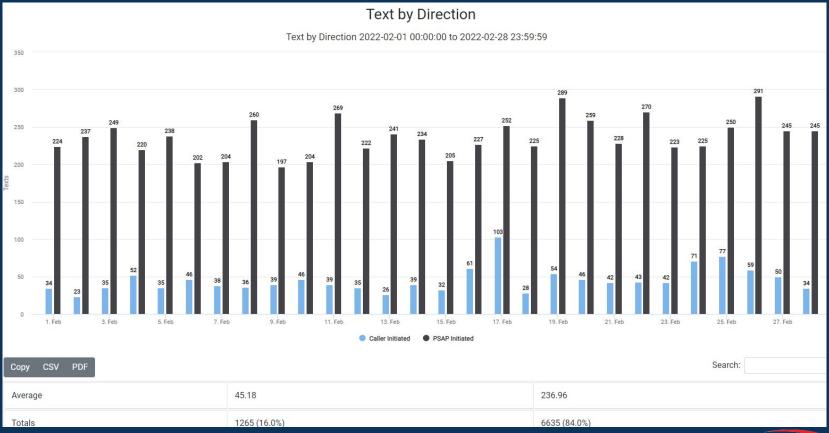
Texty by Direction



Annual Report Count



Texty by Direction





Questions?

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