911 Misroutes

Why they are happening and how to fix them

Kansas 911 Coordinating Council Lunch and Learn

February 28, 2019

What are 911 misroutes?

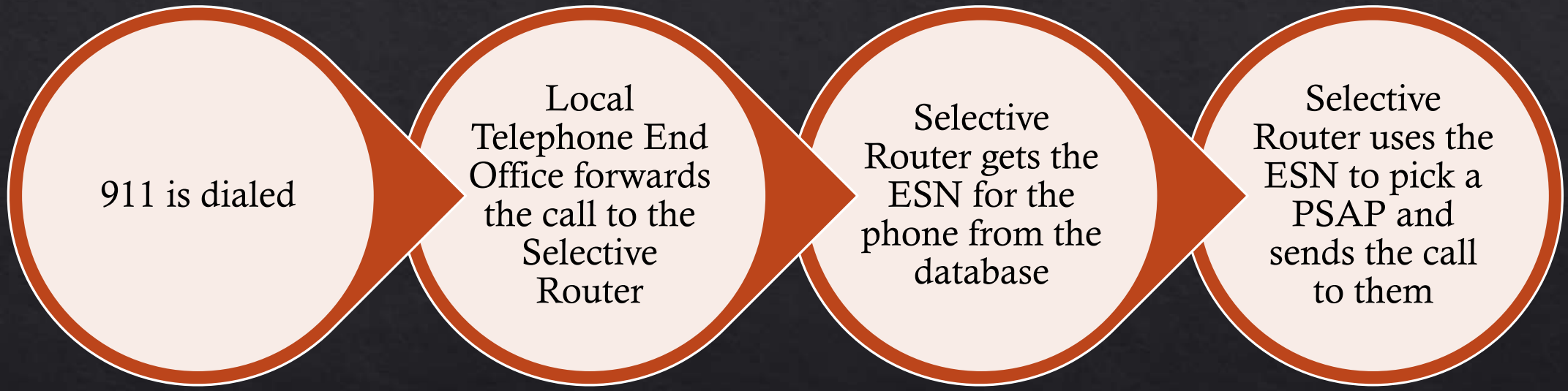
911 calls that go to the wrong PSAP

Call-takers might get name and location (ALI) or nothing but the call

Can be land line, VoIP, or wireless calls

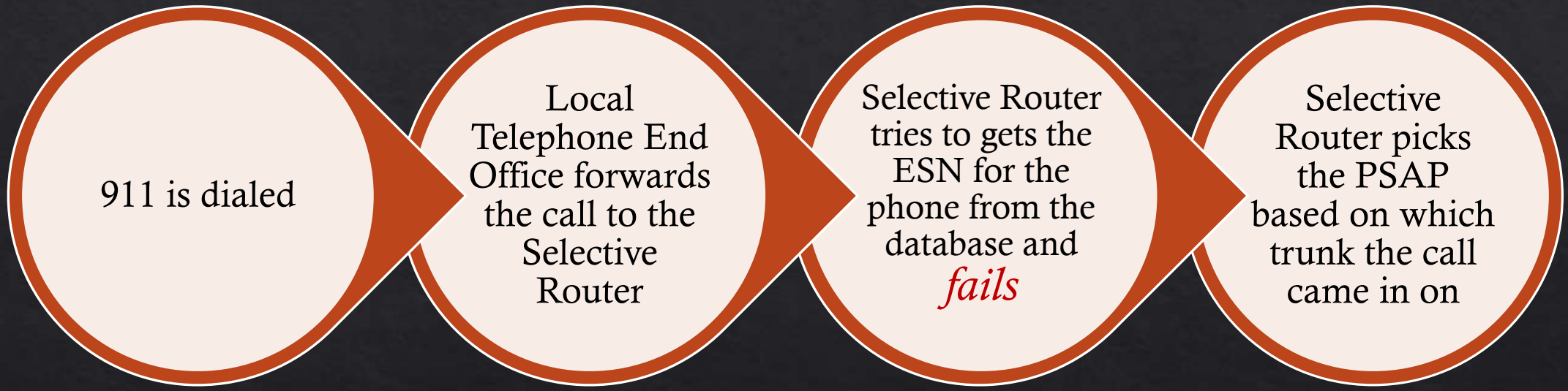
How do they happen?

When legacy routing works



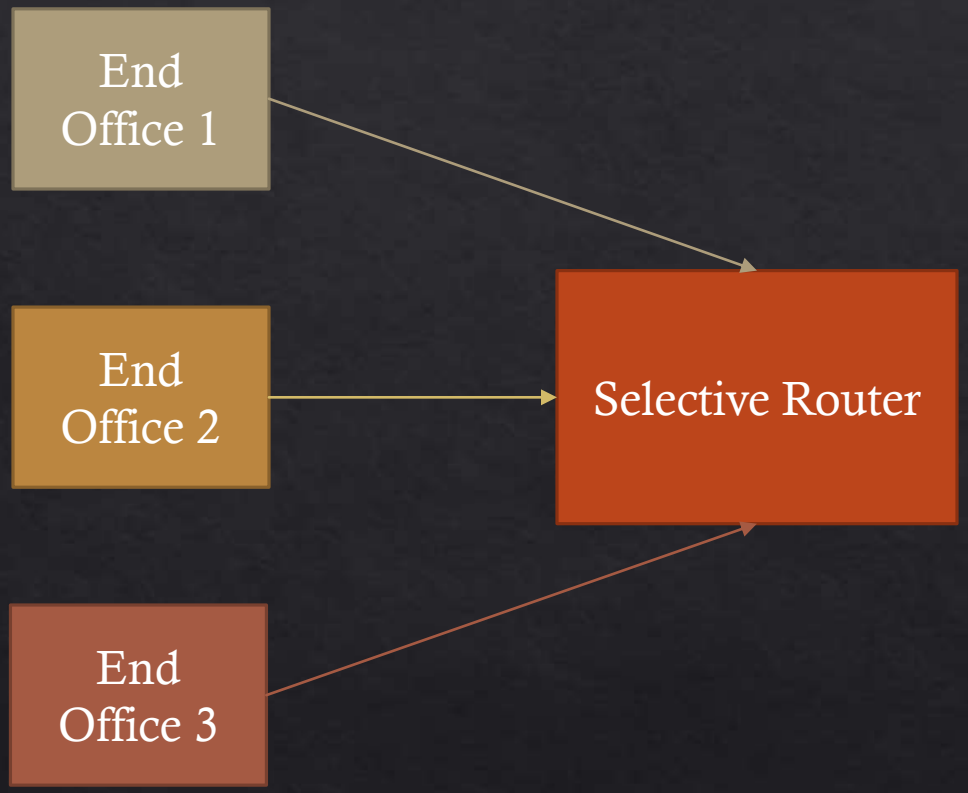
- End Office: Local telephone company equipment that provides dial tone service in a given area
- Selective Router: Telephone switch that allows for 911 call routing based on Emergency Service Numbers (ESNs)

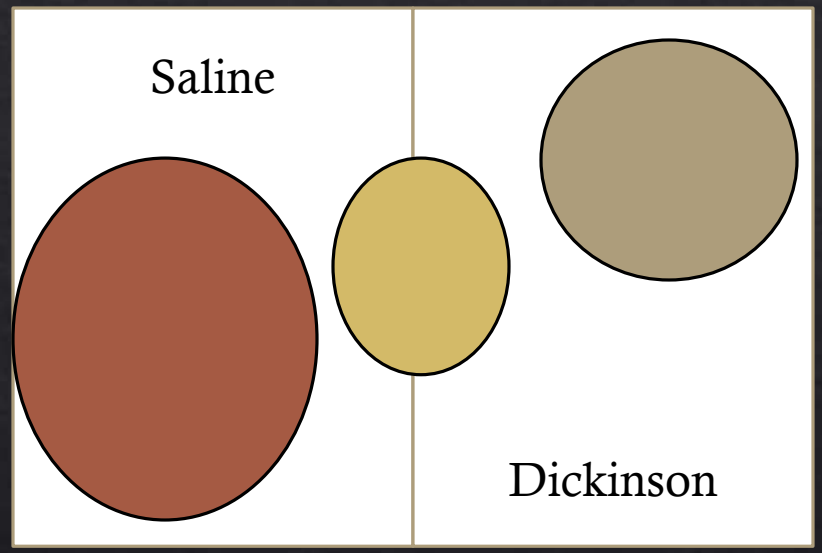
When legacy routing does not work



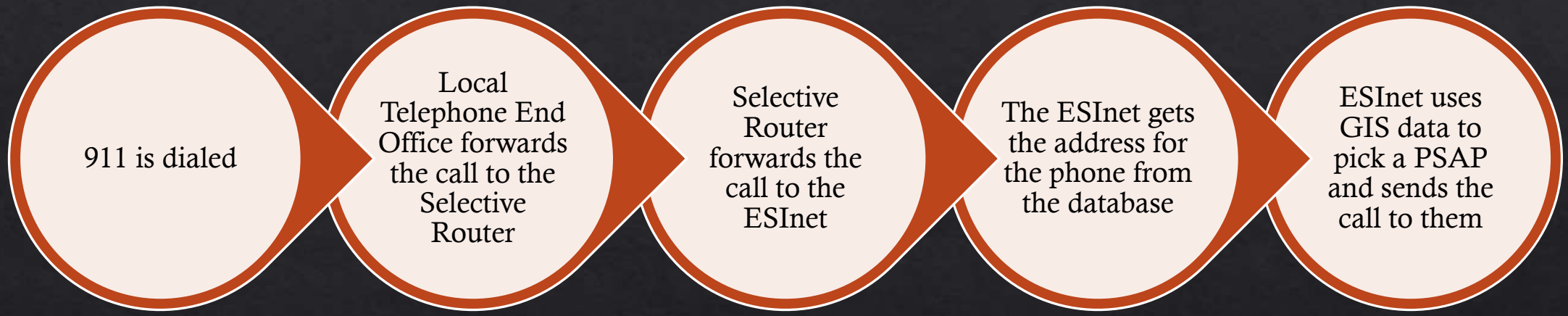
- Trunk: telephone line designed to carry many signals at once

Legacy routing fallback position





When ESInet routing works



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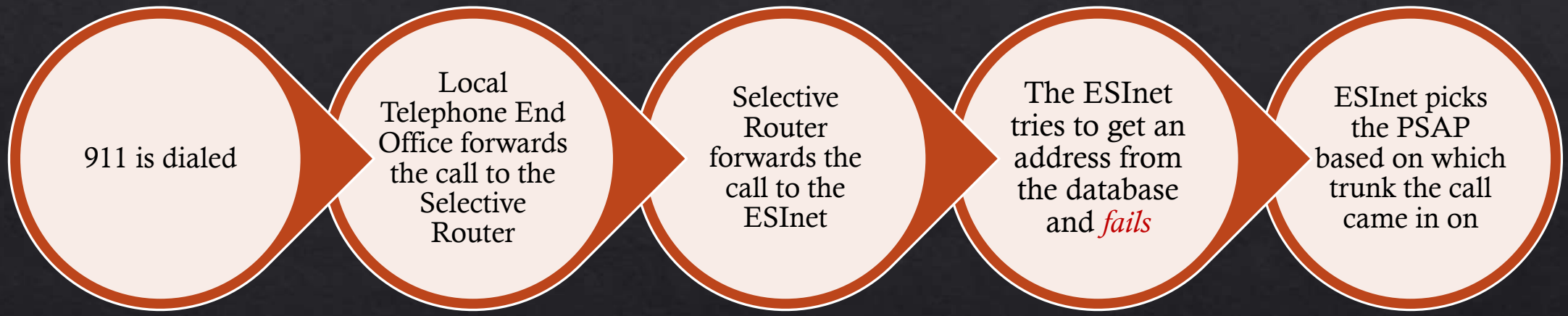
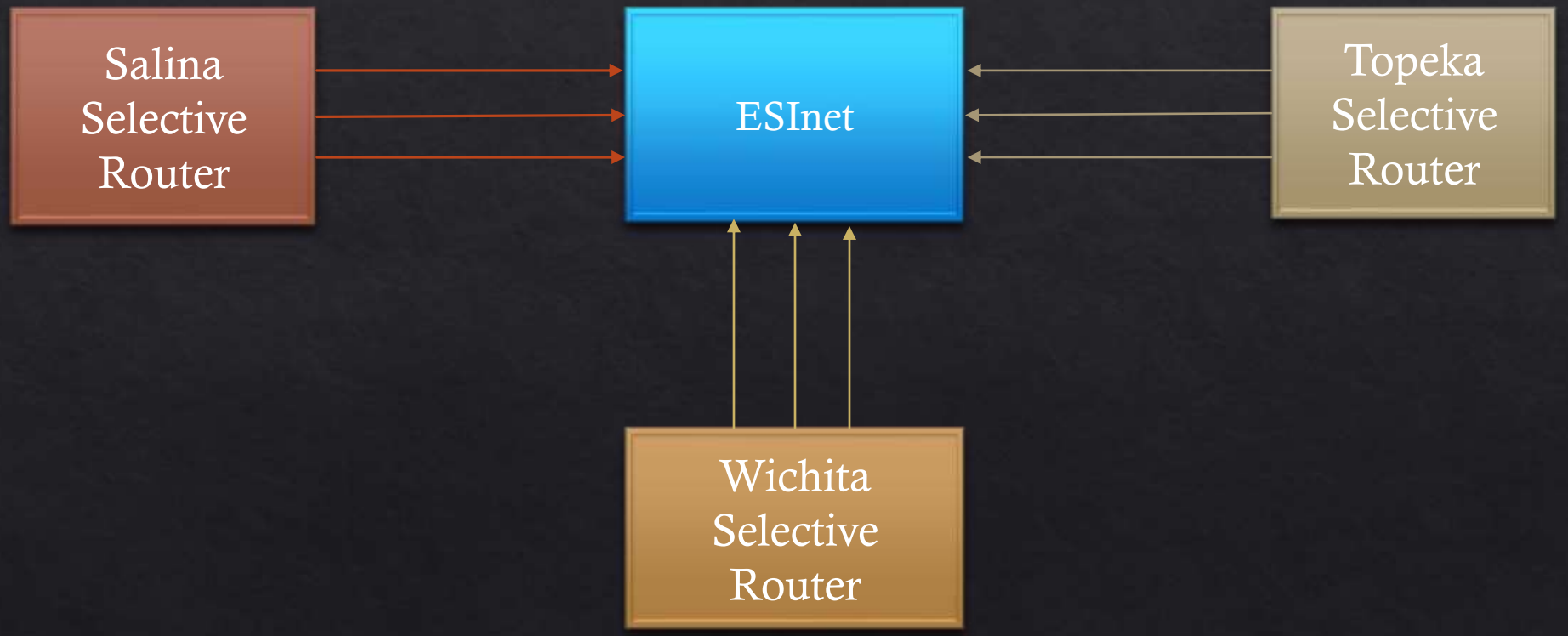


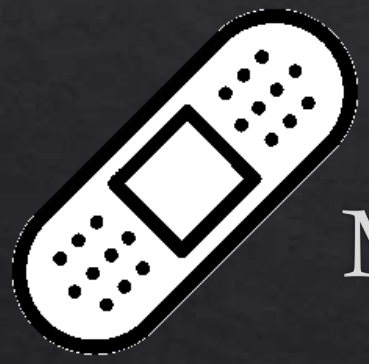
ESInet routing fallback position



Bottom Line

Misrouted calls have a higher chance of ringing in the wrong PSAP with the ESInet than they did with legacy routing

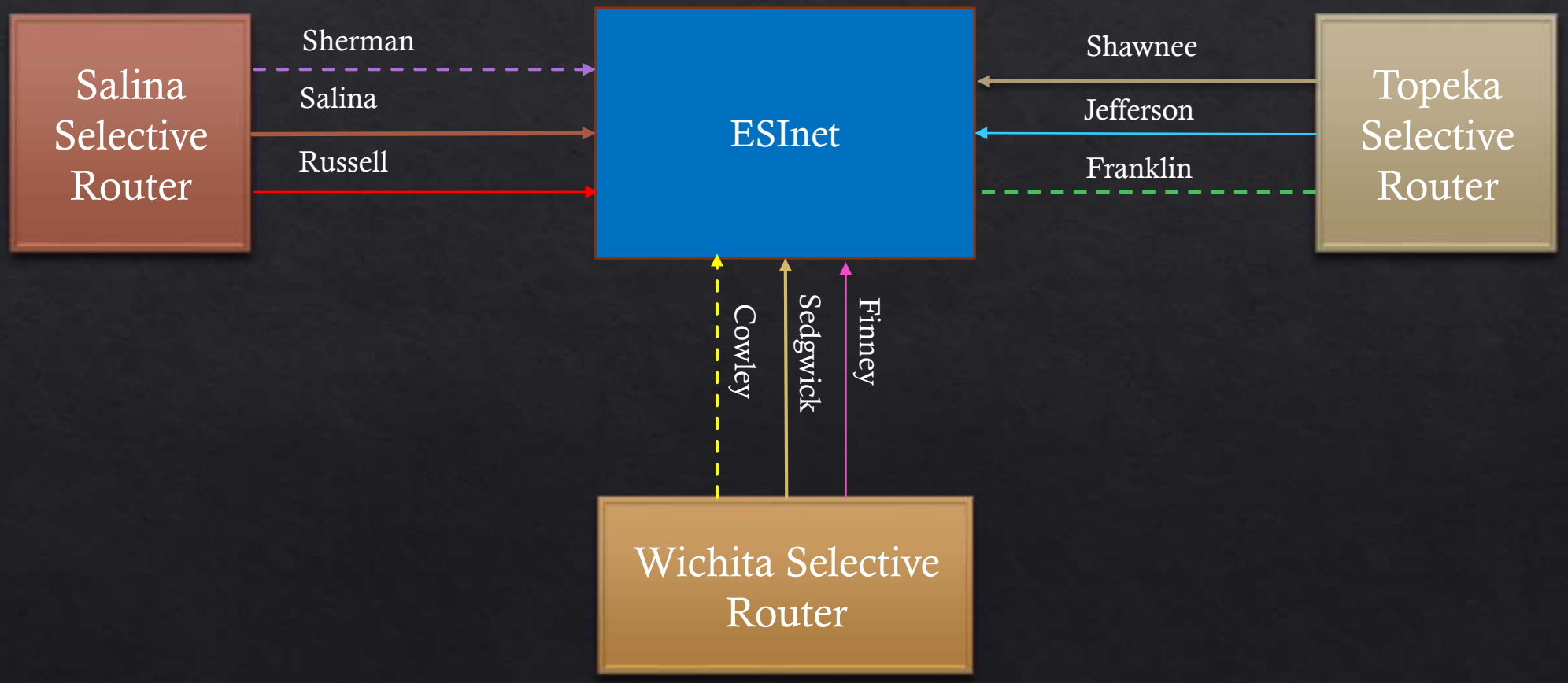
How do we fix them?



Make the fallback position more intelligent

Clean up the misrouted records

New fallback position: Local Default Routes



Local Default Routes

- PSAPs grouped into geographic areas, with the number of total 911 lines per group as a size limit
- One PSAP in each group is defined as “Default”
- All 911 calls for the group that fail to get information from the database will route to that Default PSAP
- Default PSAPs will get transfer buttons to each PSAP in their group

Cleaning Misrouted Records

=

Reporting misroutes to AT&T by submitting an ALI Discrepancy Report

ALI Discrepancy Reports, also known as ALI DRs, notify the telephone company there was a problem with a 911 call.

When do you need an ALI DR?

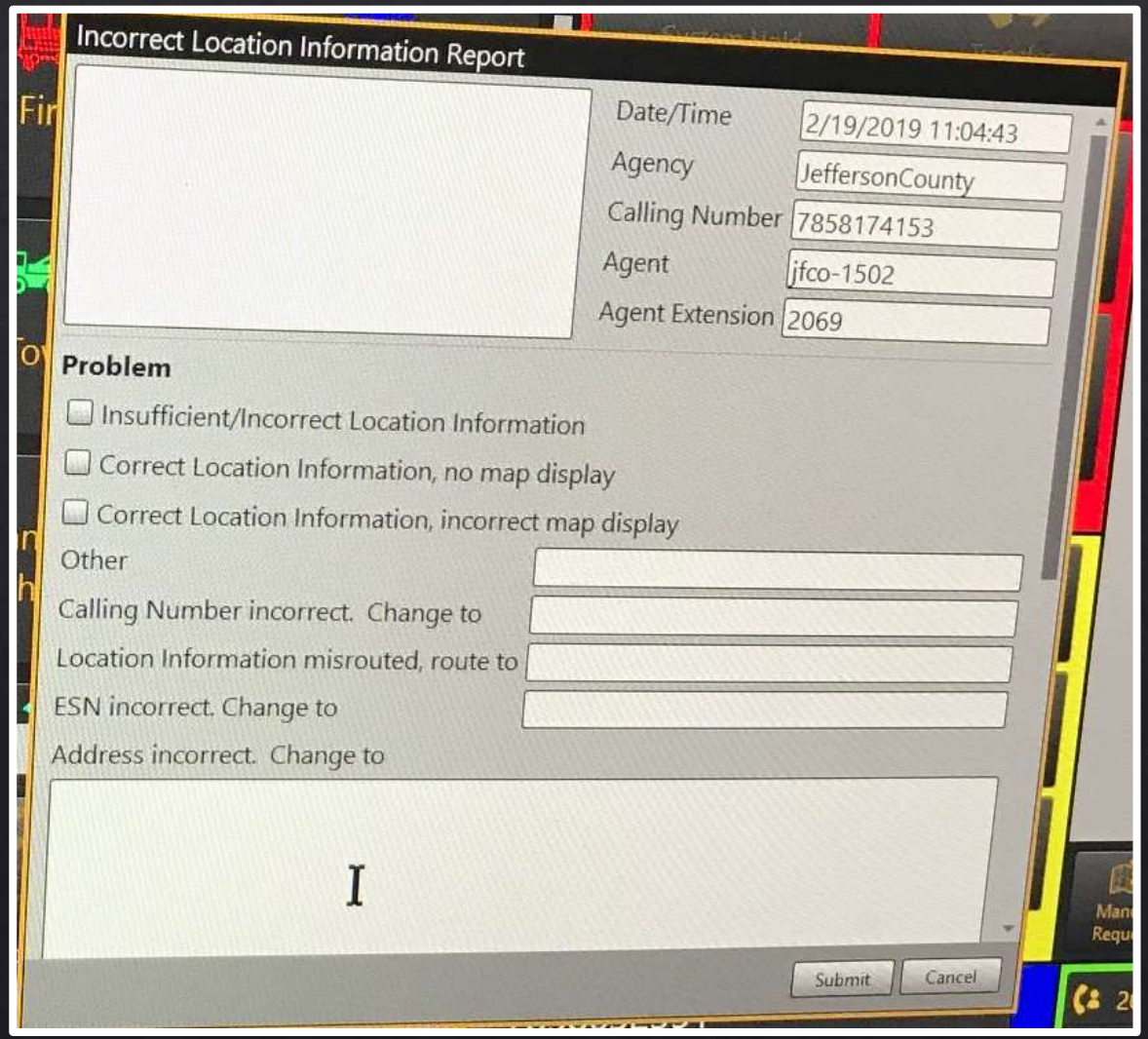
- When no name/location info came through at all (known as No Record Found calls or NRFs)
- When the call should have come in at another agency
- When the address didn't come through or came through wrong
- When the caller says they've moved but the address on the telephone record hasn't updated

Gathering the information you need

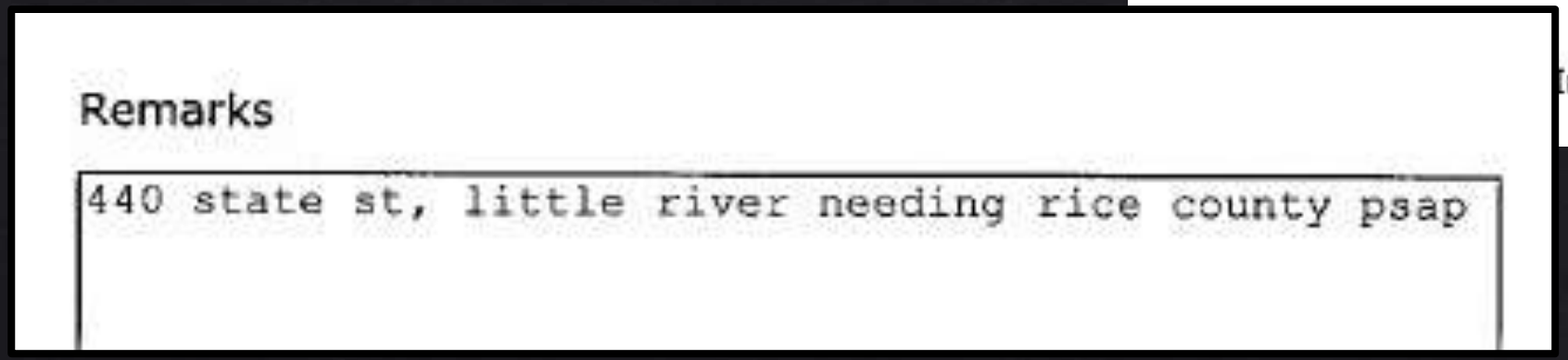
When a 911 call comes in with bad ALI or no ALI, call-takers should print a Call Information Report by clicking the Incorrect Location button

Gathering the information you need, cont.

The Incorrect Location button opens a form first that you can fill out with corrected information. It says Submit, but it doesn't submit anything to anyone.

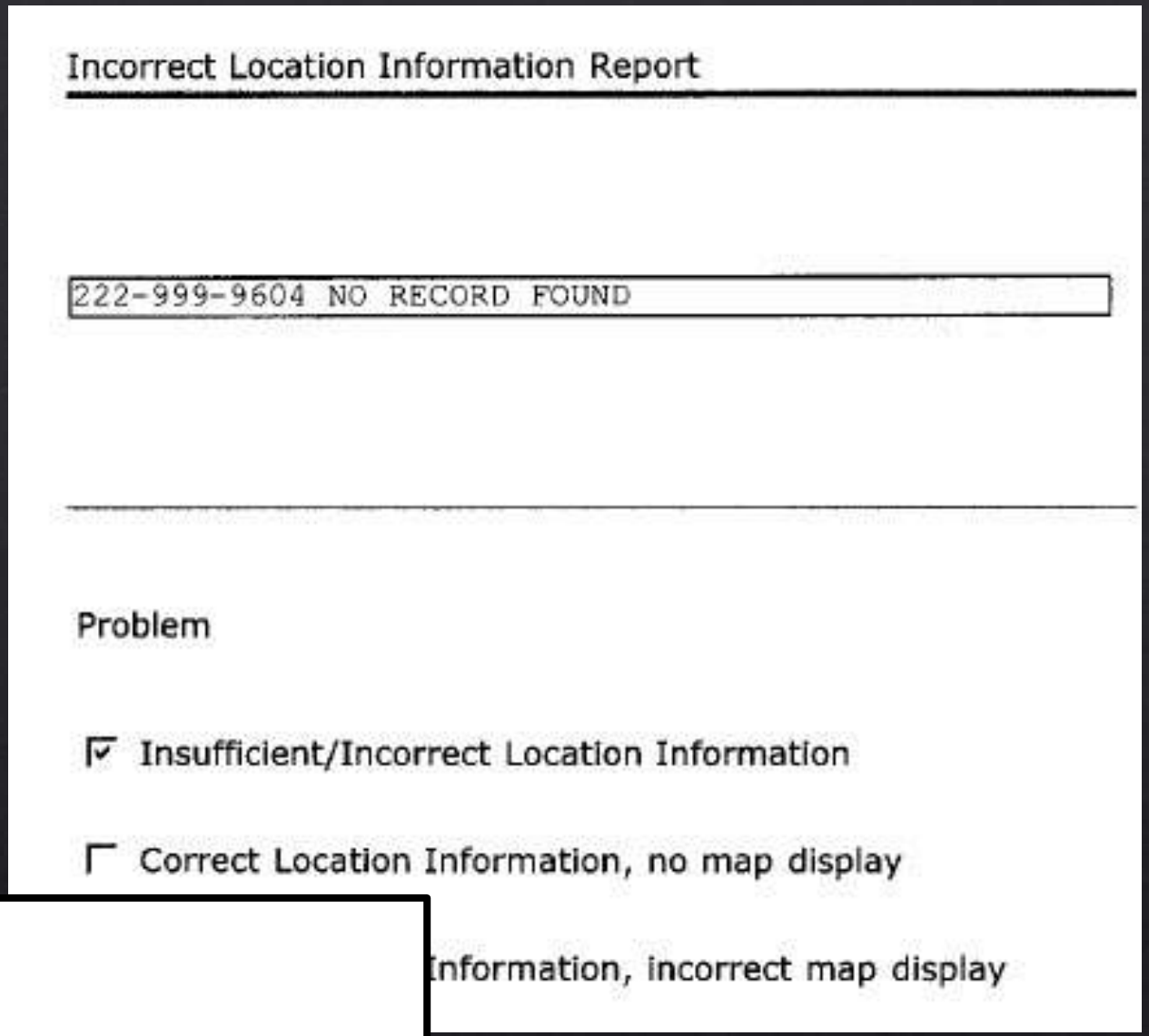


Make sure the correct information is recorded. You can record it on the Incorrect Location form like this:



Remarks

440 state st, little river needing rice county psap



Incorrect Location Information Report

222-999-9604 NO RECORD FOUND

Problem

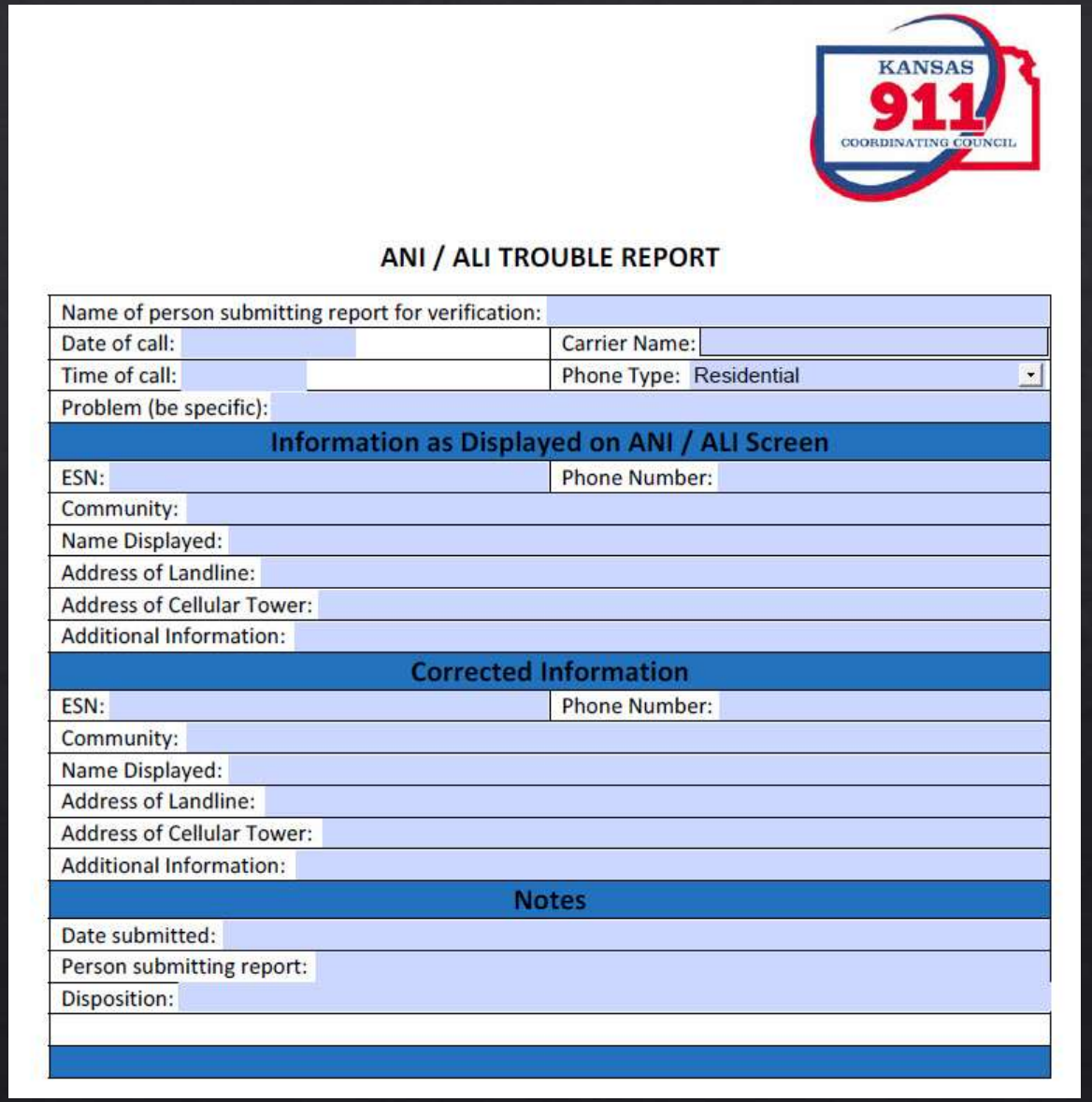
☑ Insufficient/Incorrect Location Information

☐ Correct Location Information, no map display

nformation, incorrect map display

Or on the ANI/ALI Trouble Report form, which allows for more detail and result tracking

The ANI/ALI Trouble Report form will be available on the Council website



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ANI / ALI TROUBLE REPORT

Name of person submitting report for verification:	
Date of call:	Carrier Name:
Time of call:	Phone Type: Residential
Problem (be specific):	
Information as Displayed on ANI / ALI Screen	
ESN:	Phone Number:
Community:	
Name Displayed:	
Address of Landline:	
Address of Cellular Tower:	
Additional Information:	
Corrected Information	
ESN:	Phone Number:
Community:	
Name Displayed:	
Address of Landline:	
Address of Cellular Tower:	
Additional Information:	
Notes	
Date submitted:	
Person submitting report:	
Disposition:	

Once the information is collected, it must get to the person who can submit ALI DRs for your agency

ANI / ALI TROUBLE REPORT

Name of person submitting report for verification: S Massey	
Date of call: 02/20/2019	Carrier Name: SWB
Time of call: 1317	Phone Type: Residential
Problem (be specific): Bad Address Information	
Information as Displayed on ANI / ALI Screen	
ESN: 1100	Phone Number: (785) 263-0134
Community: Abilene	
Name Displayed: Bob Smith	
Address of Landline: 507 NW 6th ST	
Address of Cellular Tower:	
Additional Information:	
Corrected Information	
ESN:	Phone Number:
Community:	
Name Displayed:	
Address of Landline: 1411 N Buckeye Ave	
Address of Cellular Tower:	
Additional Information:	
Notes	
Date submitted:	
Person submitting report:	
Disposition:	

Who can submit ALI Discrepancy Reports?

ALI DRs must be submitted by someone with access to 911Net.

If you have access, you have a token

Each PSAP must decide who will submit these reports and how that person will get the information

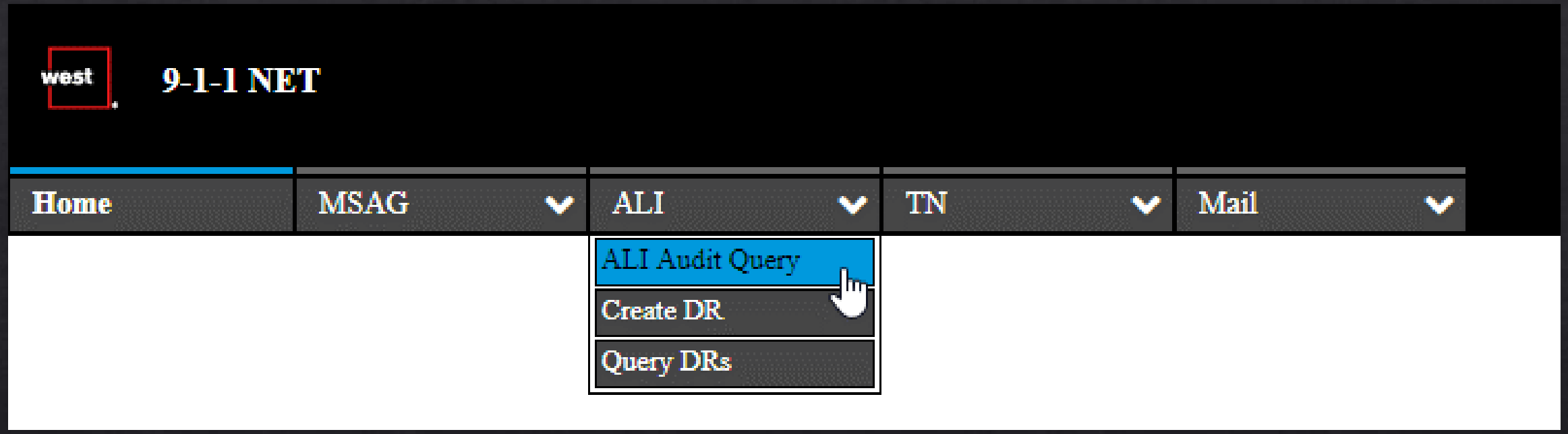
What happens after it is submitted?

AT&T's Database Integrity Unit takes over

- They research to see if it was a network error or a bad/missing telephone record that caused the error
- They contact the telephone company responsible for the number and give them the corrected information
- They monitor the record to see if and when the telephone company fixes the record, sending reminders until they do

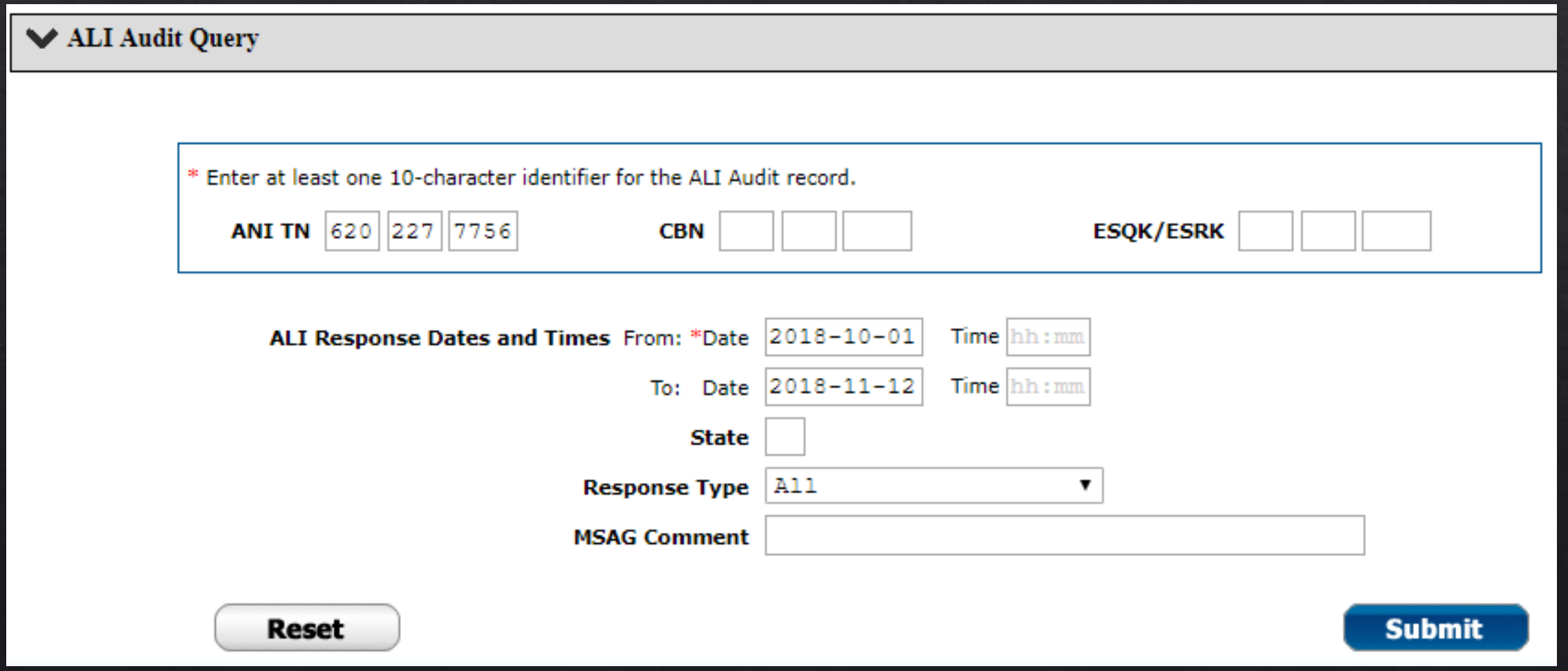
How to submit an ALI Discrepancy Report

Go to 911Net



Try to query the number that called 911

You'll need the phone number and date range



You'll get a list of calls

ALI Audit Query Results - 12 Records

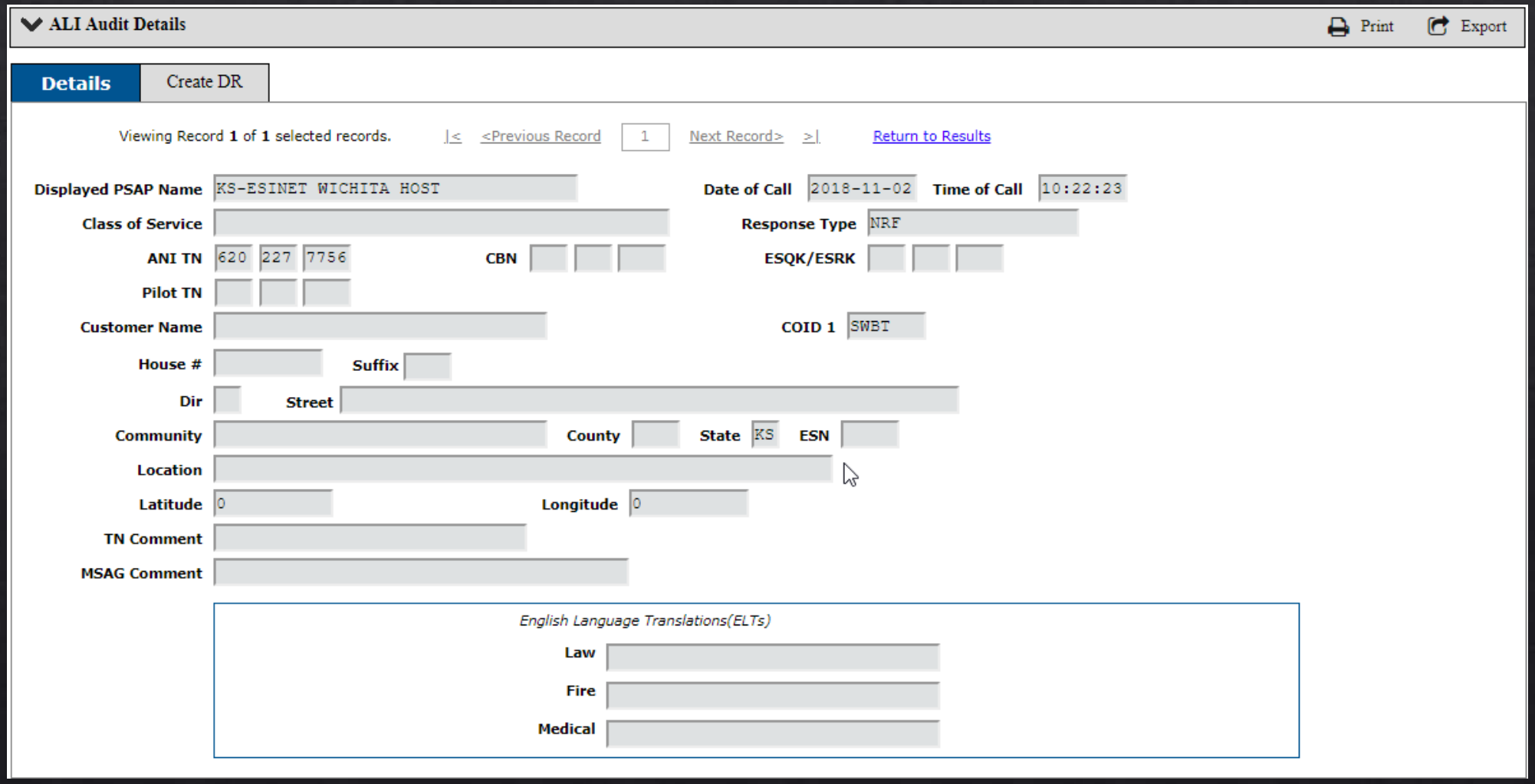
Details | Create DR

Viewing page **1** of **1** (**12** records). |< <Previous Page 1 Next Page> >|

0 records selected of **12** records returned.

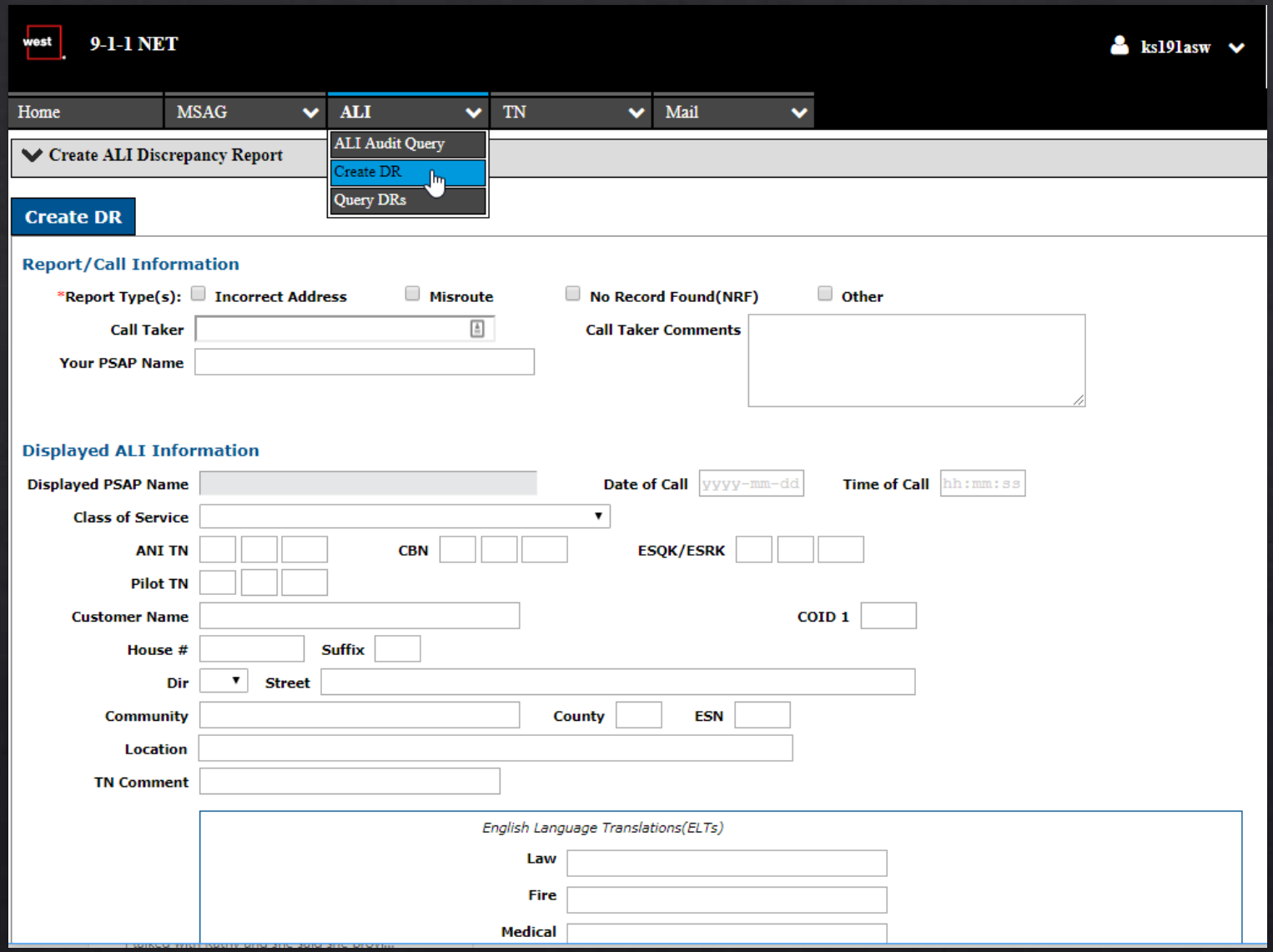
Response Date and Time	Response Type	ANI TN
2018-11-02 10:22:23	NRF	620-227-7756
2018-11-02 10:22:23	NRF	620-227-7756
2018-10-18 14:55:01	NRF	620-227-7756
2018-10-18 14:55:01	NRF	620-227-7756
2018-10-17 15:16:33	NRF	620-227-7756
2018-10-17 15:16:33	NRF	620-227-7756
2018-10-16 11:33:43	NRF	620-227-7756
2018-10-16 11:33:43	NRF	620-227-7756
2018-10-10 13:22:10	NRF	620-227-7756
2018-10-10 13:22:10	NRF	620-227-7756
2018-10-04 15:17:54	NRF	620-227-7756
2018-10-04 15:17:54	NRF	620-227-7756

Select a call to view or correct the ALI

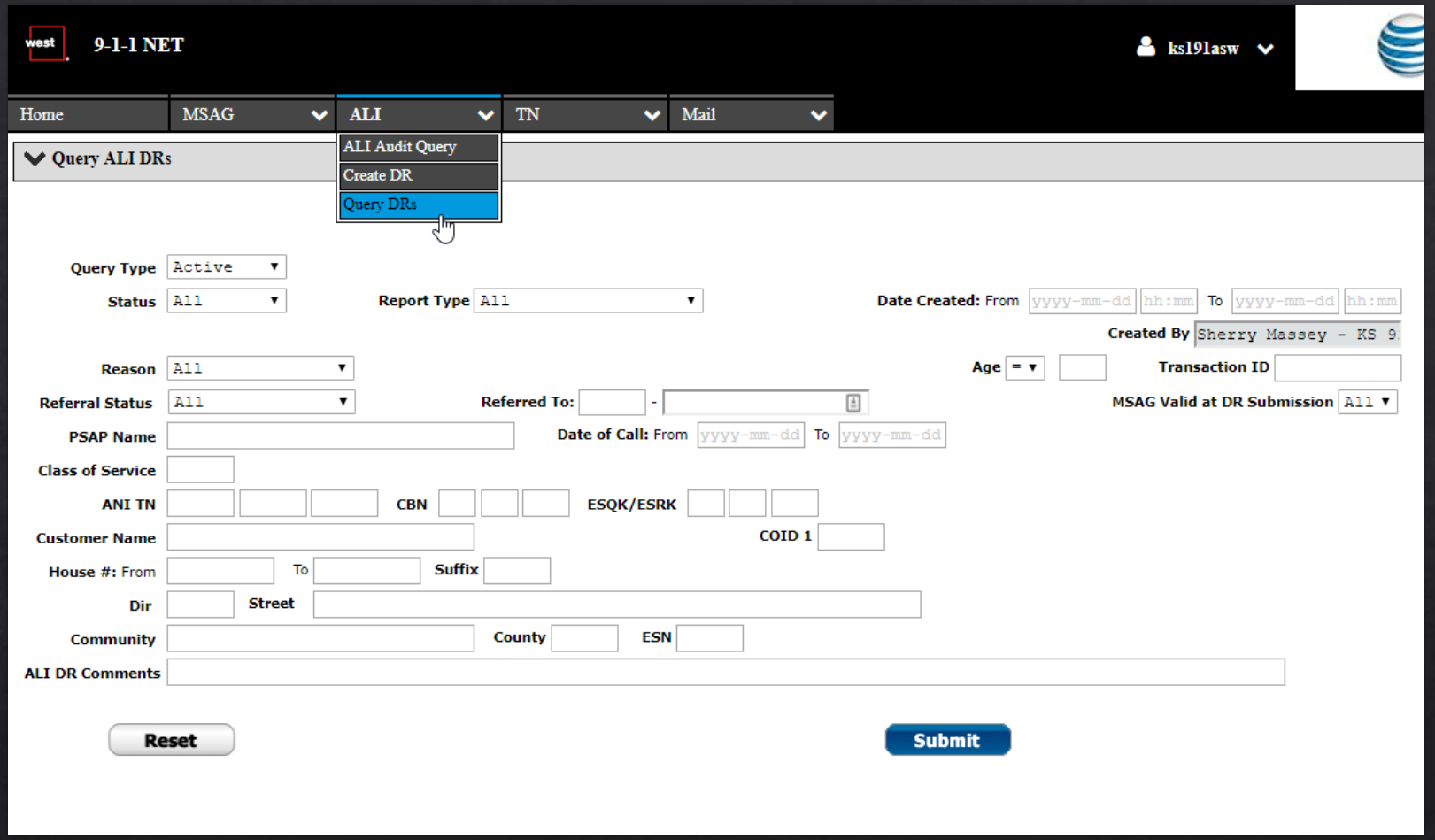


If you can't find the call, you can enter information from scratch

Enter as much as you know



And you can view your past DRs to see what has been done



Summary

- Telephone numbers that are not in the database are the problem
- Legacy routing hid the problem, and NG911 routing exposed it
- Smarter selection of default PSAPs will alleviate some of the worst effects
- Fixing the problem will require PSAPs to submit ALI DRs when they get a call with missing or inaccurate ALI

Questions?