ALABAMA 9-1-1 BOARD

August 27, 2024
Talk About It Tuesday!

01 Our Team

02 INdigital GIS Update

03 Upcoming Training and Reminders

04 Questions

Our Team

(334) 440-7911

Leah Missildine
Executive Director
Email: leah@al911board.com

Adam Brown
Deputy Director
Email: adam@al911board.com

Nida Jackson
Senior GIS Specialist
Email: nida@al911board.com

Anderson Brooms
GIS Program Manager
Email: anderson@al911board.com

Laura Ehrhart
Education & Outreach Program Manager
Email: laura@al911board.com

Daniel Hipps
Education and Outreach Specialist
Email: daniel@al911board.com

Michelle Peel
Program Coordinator
Email: michelle@al911board.com

INDIGITAL
GIS UPDATES

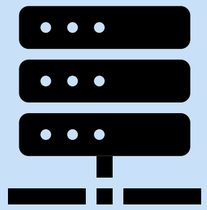
WHAT WE'LL COVER

- What do you need to know about NextGen GIS?
- How is this different from past and current?
- How do our data requirements relate to the data model standards?
- How does all of this affect you, as a GIS authority?

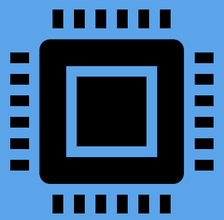
Main functions of GIS data in NextGen:

Location Validation: The LVF identifies the location of a civic address. GIS data is used with the location validation function to validate those locations.

Call Routing: The ECRF determines which PSAP to route the caller using GIS data.

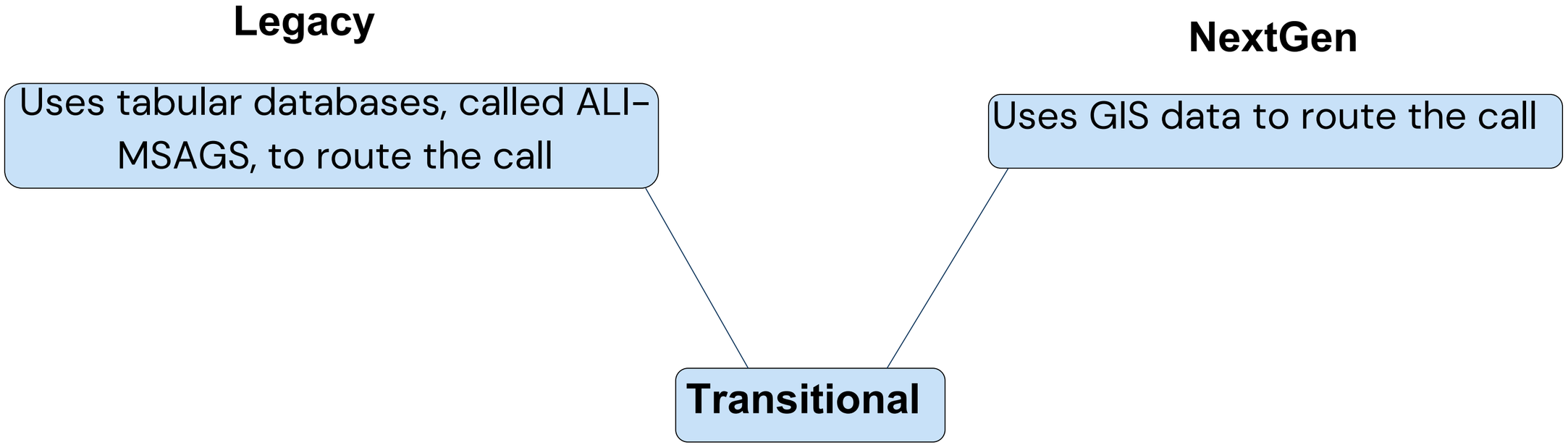


GIS data is not just for use INSIDE the dispatch center anymore.



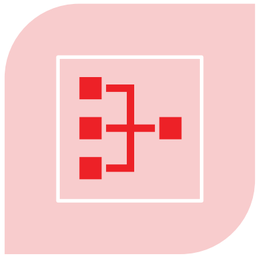
GIS data is used OUTSIDE the dispatch center to correctly route the calls there in the first place.

LEGACY VS NEXTGEN

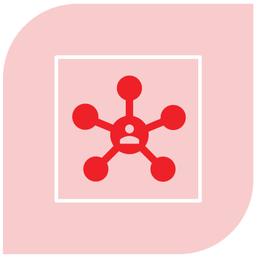


NEXTGEN GEO-ROUTING SIMPLIFIED

PSAP'S GIS DATA IS UPLOADED TO SPATIAL INTERFACE(SI).



LOCATION RECORDS(CIVIC) ARE VALIDATED USING THE LOCATION VALIDATION FUNCTION (LVF) TO DETERMINE IF THE ADDRESS SHOWN IS VALID FOR ROUTING.



CALL COMES INTO THE NETWORK WITH PIDF-LO (PRESENCE INFORMATION DATA LOCATION OBJECT).

THE CALL IS ROUTED TO THE CORRECT PSAP USING THE GIS DATA AND THE EMERGENCY CALL ROUTING FUNCTION (ECRF).

STEPS TOWARD END STATE GEO-ROUTING

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

CURRENT VS FUTURE

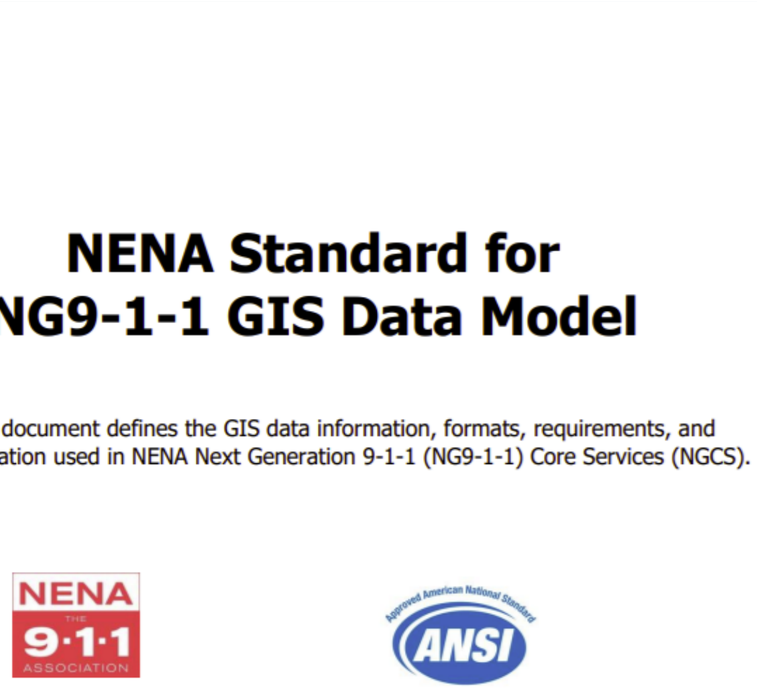
- Current: Only PSAP boundaries are being used to route wireless calls.
- Future: All required layers can be utilized during any call routing.

- Current: The location information used to route is obtained with a database dip.
- Future: Location information will come with the call (PIDF-LO).

- Current: GIS data is handed off between the board and INdigital.
- Future: GIS data will be passed via a spatial interface, where it will be stored and will then provision the other functional elements.

DATA REQUIREMENTS
VS
NENA DATA MODEL

DATA MODEL REQUIREMENTS



NENA Standard for
NG9-1-1 GIS Data Model

Abstract: This document defines the GIS data information, formats, requirements, and related information used in NENA Next Generation 9-1-1 (NG9-1-1) Core Services (NGCS).

NENA Standard for NG9-1-1 GIS Data Model

NENA-STA-006.2-2022
DSC Approval: July 12, 2022
PRC Approval: September 15, 2022
NENA Board of Directors Approval: September 21, 2022
ANSI Approved: September 23, 2022

Next Scheduled Review Date: September 23, 2025

Prepared by:
National Emergency Number Association (NENA) Data Structures Committee, NG9-1-1 GIS Data Model Working Group

NENA GIS Data Model

https://cdn.ymaws.com/www.nena.org/resource/resmgr/standards/nena-sta-006.2-2022_ng9-1-1_.pdf

DATA MODEL REQUIREMENTS

```
   TABLE:  nena.RoadCenterLine (Road Centerlines - REQUIRED)
   Source: NENA-STA-006.2-2022, Section 4.1.1, p.23
  ********************************************************************** */
DROP TABLE  IF EXISTS nena.RoadCenterline;
CREATE TABLE nena.RoadCenterline (
  id SERIAL  PRIMARY KEY
, geom GEOMETRY ('LineString',4326)  NOT NULL
, DiscrpAgID VARCHAR(100)  NOT NULL  REFERENCES nena.Agency(AgencyID)
, DateUpdate TIMESTAMPTZ  NOT NULL
, Effective TIMESTAMPTZ
, Expire TIMESTAMPTZ
, NGUID VARCHAR(254)  NOT NULL  UNIQUE
, AdNumPre_L VARCHAR(15)
, AdNumPre_R VARCHAR(15)
, FromAddr_L INTEGER  NOT NULL  CHECK ( 0 <= FromAddr_L AND FromAddr_L <= 999999 )
, ToAddr_L INTEGER  NOT NULL  CHECK ( 0 <= ToAddr_L AND ToAddr_L <= 999999 )
, FromAddr_R INTEGER  NOT NULL  CHECK ( 0 <= FromAddr_R AND FromAddr_R <= 999999 )
, ToAddr_R INTEGER  NOT NULL  CHECK ( 0 <= ToAddr_R AND ToAddr_R <= 999999 )
, Parity_L VARCHAR(1)  NOT NULL  REFERENCES nena.StreetNameParity(Parity)
, Parity_R VARCHAR(1)  NOT NULL  REFERENCES nena.StreetNameParity(Parity)
, St_PreMod VARCHAR(15)
, St_PreDir nena.StreetNameDirectional
, St_PreTyp VARCHAR(50)  REFERENCES nena.StreetNameType(StreetNameType)
, St_PreSep VARCHAR(20)  REFERENCES nena.StreetNamePreTypeSeparator(Separator)
, St_Name VARCHAR(254)  NOT NULL
, St_PosTyp VARCHAR(50)  REFERENCES nena.StreetNameType(StreetNameType)
, St_PosDir nena.StreetNameDirectional
, St_PosMod VARCHAR(25)
, LSt_PreDir VARCHAR(2)  REFERENCES nena.StreetNameLegacyDirectional(Directional)
, LSt_Name VARCHAR(75)
, LSt_Typ VARCHAR(4)
, LSt_PosDir VARCHAR(2)  REFERENCES nena.StreetNameLegacyDirectional(Directional)
, ESN_L VARCHAR(5)  CHECK ( ESN_L ~* '\w{3,5}' )
, ESN_R VARCHAR(5)  CHECK ( ESN_R ~* '\w{3,5}' )
, MSAGComm_L VARCHAR(30)
, MSAGComm_R VARCHAR(30)
, Country_L nena.Country  NOT NULL
, Country_R nena.Country  NOT NULL
, State_L VARCHAR(2)  NOT NULL  REFERENCES nena.StateOrEquivalentA1(State)
, State_R VARCHAR(2)  NOT NULL  REFERENCES nena.StateOrEquivalentA1(State)
, County_L VARCHAR(100)  NOT NULL  REFERENCES nena.CountyOrEquivalentA2(County)
, County_R VARCHAR(100)  NOT NULL  REFERENCES nena.CountyOrEquivalentA2(County)
, AddCode_L VARCHAR(6)
, AddCode_R VARCHAR(6)
, IncMuni_L VARCHAR(100)  NOT NULL
, IncMuni_R VARCHAR(100)  NOT NULL
, UnincCom_L VARCHAR(100)
, UnincCom_R VARCHAR(100)
, NbrhdCom_L VARCHAR(100)
, NbrhdCom_R VARCHAR(100)
, PostCode_L VARCHAR(7)  REFERENCES nena.PostalCode(PostalCode)
, PostCode_R VARCHAR(7)  REFERENCES nena.PostalCode(PostalCode)
, PostComm_L VARCHAR(40)  REFERENCES nena.PostalCommunity(PostalCommunity)
, PostComm_R VARCHAR(40)  REFERENCES nena.PostalCommunity(PostalCommunity)
, RoadClass VARCHAR(15)  REFERENCES nena.RoadClass(RoadClass)
, OneWay VARCHAR(2)  REFERENCES nena.OneWay(OneWay)
, SpeedLimit INTEGER CHECK ( 1 <= SpeedLimit AND SpeedLimit <= 100 )
, Valid_L VARCHAR(1)  CHECK ( Valid_L  in ('Y','N') )
, Valid_R VARCHAR(1)  CHECK ( Valid_R  in ('Y','N') )
```

Postgresql Data Model Schema

https://github.com/NENA911/NG911GISDataModel/blob/v2.0/postgresql/postgresql_data_model_schema_template.md

DATA REQUIREMENTS

- Duplicate Features
- Empty Geometry
- Multipart Geometry
- Multiline Topology
- Required Fields
- (Not Null) Fields
- Conditional Fields

HOW CAN YOU BETTER PREPARE?

Communication

Resources

DEADLINES AND REMINDERS

Are you hiring?

We can post your job openings to our website. Email Michelle the job description including closing date.

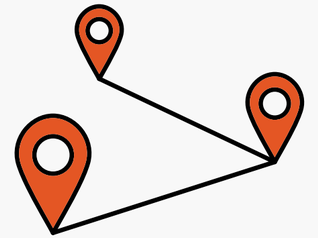
Are you looking for a job?
Check our website for openings.

FY24 Legacy 9-1-1 Cost Reimbursement submissions are due by the 10th of each month. The new form is here.

PST CERTIFICATION REIMBURSEMENT

Request for Payment for PST Certification submissions made by the 10th will be paid out at the end of the month. Anything submitted after the 10th will be paid at the end of the following month. You can find more information on our website.

Upload, validate, aggregate your GIS data to the State office VEP.



STAFFING CHANGES

Have you had a staffing change? If that person is ALPST certified or answering 911 calls, please fill out this form. If that person is admin staff or otherwise does not answer 911 calls, fill out this form.

Questions?

Contact Us

(334) 440-7911

Leah Missildine
Executive Director
Email: leah@al911board.com

Adam Brown
Deputy Director
Email: adam@al911board.com

Nida Jackson
Senior GIS Specialist
Email: nida@al911board.com

Anderson Brooms
GIS Program Manager
Email: anderson@al911board.com

Laura Ehrhart
Education & Outreach Program Manager
Email: laura@al911board.com

Daniel Hipps
Education and Outreach Specialist
Email: daniel@al911board.com

Michelle Peel
Program Coordinator
Email: michelle@al911board.com