



SAM Partner Outreach Meeting

GIS Program

NYS Office of Information Technology Services

SAM Project Objective

***Create a statewide authoritative
address point database to support
Next Generation 9-1-1
and other purposes***

State of Affairs in 2011

NYS GIS Program

- Active GIS Coordination Program
- Partnerships with county GIS & increasingly 9-1-1
- 10+ years building GIS Address Points
- *Awarded NTIA supplemental funds*

NYS 9-1-1 Coordinators

- No statewide 9-1-1 data standards
- Understood NG 9-1-1 will **require** GIS data
- *Desired a Statewide Master Address file*
- Limited resources for building GIS data

Our Common Goal...

Authoritative Statewide Address Points

A timely partnership opportunity!



Big Picture

- Next Generation 9-1-1 *requires* GIS data
- Huge range of needs for address data statewide
- Building to highest level requirements (i.e. 9-1-1) will support all lower requirements
- One master address point database
- Address point data will...
 - *Support 9-1-1 dispatch*
 - *Be publicly available for widespread uses*
 - *Support high-quality geocoding*
 - *Contain no personal or sensitive information*
 - *Contain unique IDs*

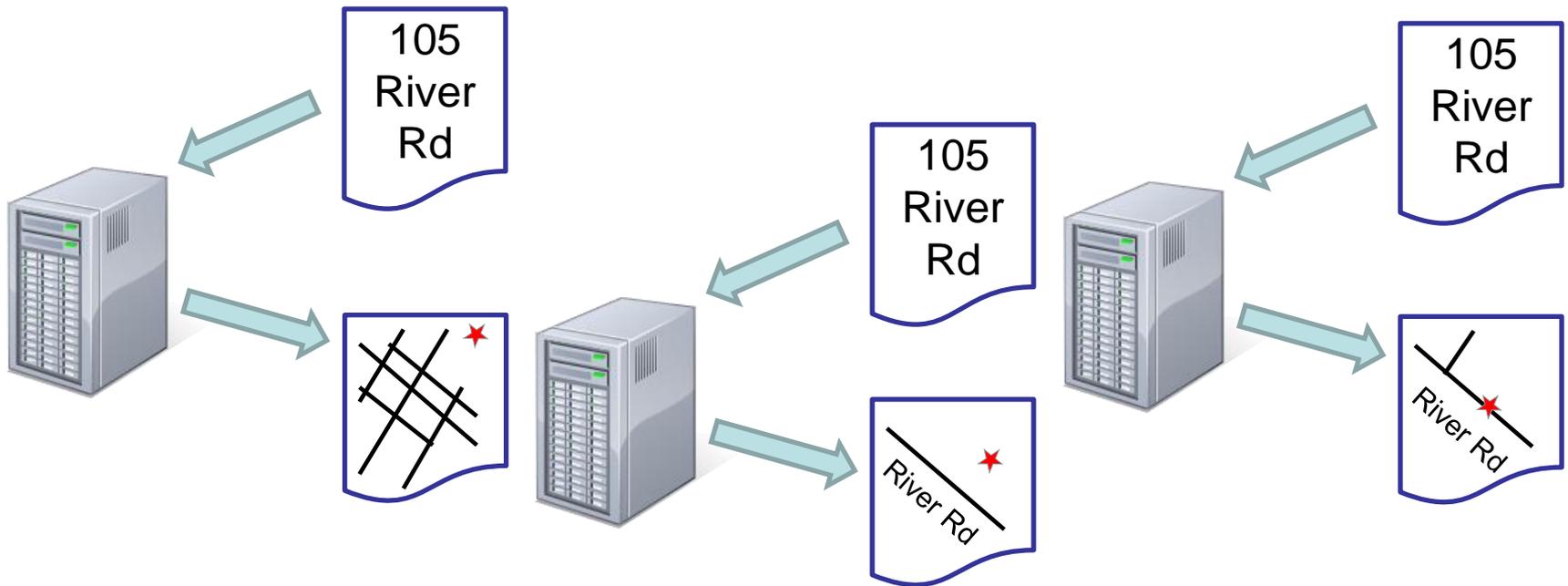
Many Uses for Address Data Beyond 9-1-1 Dispatch

- Sex offender placements
- Sales tax collection and distribution
- Environmental permitting
- Welfare to Work programs
- School bus routing
- Emergency response planning & recovery
- Tax fraud analysis
- Statewide Enterprise Geocoding

Current Geocoding Status Across the State

Identical input addresses yield different results!

State & local agencies currently use their own data for geocoding, yielding different results



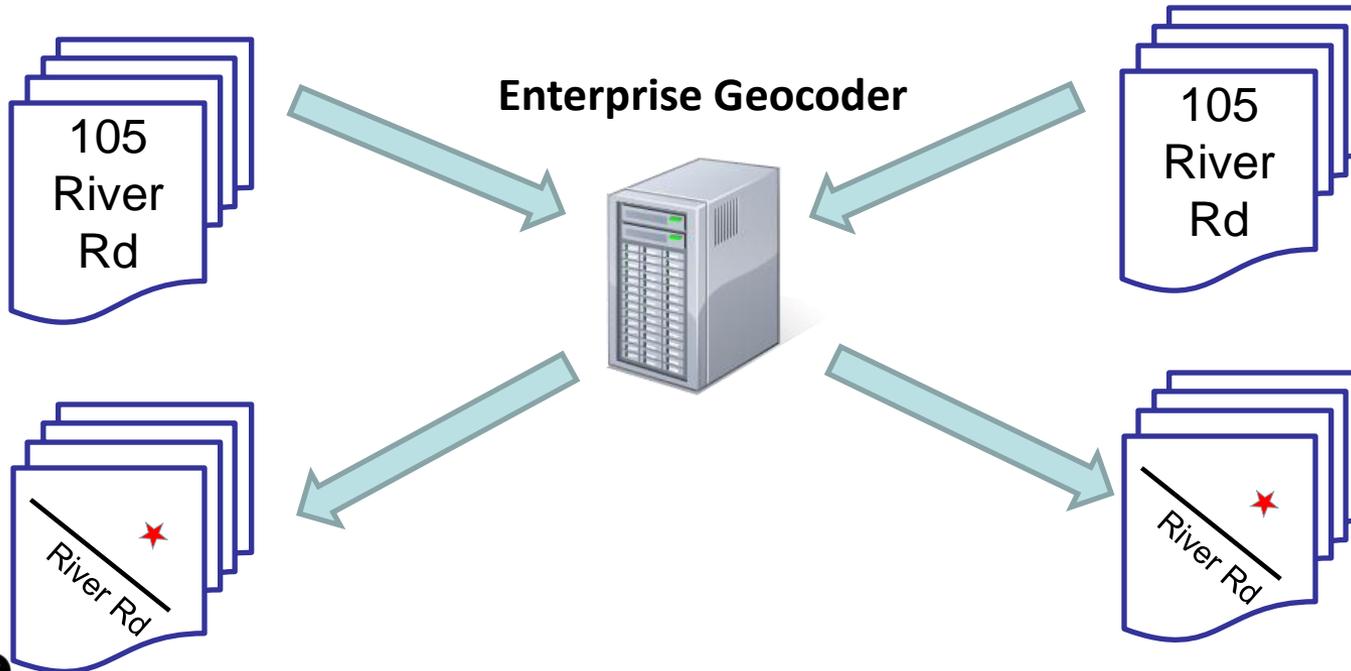
Geocoding With a Centralized Service

Identical input addresses yield identical results

<http://gisservices.dhSES.ny.gov/arcgis/services>

Counties, Cities and Towns

State Agencies



SAM Partners



Statewide Address Point Build: 2 Stages

Stage 1:

State contracts for:

- “Principal” (main structure) point on building footprint
- Parcel centroids for vacant addressed parcels
- Addresses in draft NENA standard

State in-house tasks:

- Outreach to counties for data
- QA/QC of data deliverables



Stage 1
Building Rooftops
Centroids of Vacant Parcels

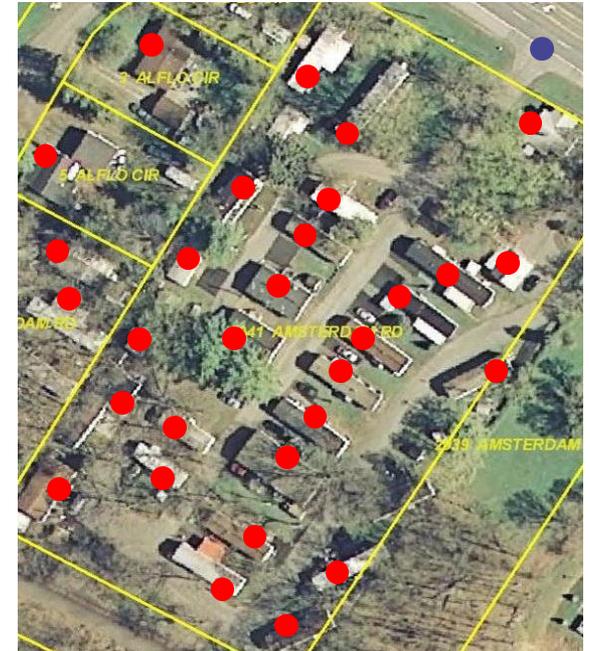


Statewide Address Point Build: 2 Stages

Stage 2:

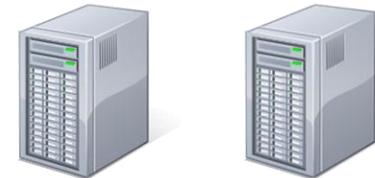
Counties use NENA standards to:

- **Locate** addresses identified in exception report
- **Add new points**
- **Refine** locations
- Map **subaddresses**
- Place **routing points**

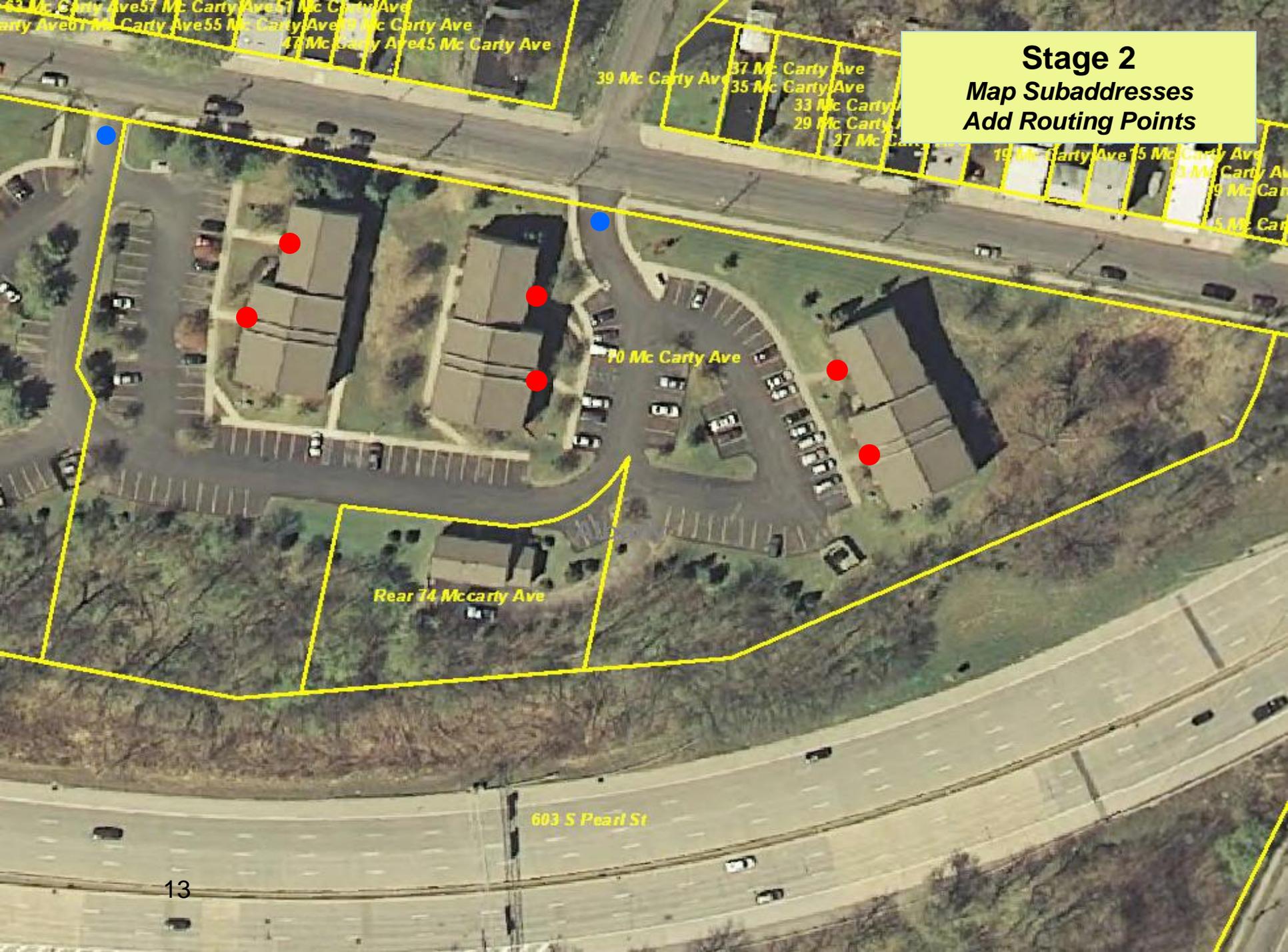


State provides:

- Data maintenance tools
- Data hosting/distribution services



Stage 2
Map Subaddresses
Add Routing Points



61 Mc Carty Ave 57 Mc Carty Ave 51 Mc Carty Ave
49 Mc Carty Ave 47 Mc Carty Ave 45 Mc Carty Ave

39 Mc Carty Ave 37 Mc Carty Ave
35 Mc Carty Ave 33 Mc Carty Ave
29 Mc Carty Ave 27 Mc Carty Ave

19 Mc Carty Ave 15 Mc Carty Ave
13 Mc Carty Ave 11 Mc Carty Ave
9 Mc Carty Ave 7 Mc Carty Ave
5 Mc Carty Ave

70 Mc Carty Ave

Rear 74 Mccarty Ave

603 S Pearl St

Developing the Partnership

- Leadership meetings
- Jointly identified:
 - Common goals
 - Individual strengths
 - Appropriate roles
 - Potential problems
 - Needed standards
 - Other stakeholders
- Developed an outreach plan



Stakeholder Outreach Meetings

- Regional NYS 9-1-1 Coordinator Meetings
- NYS Association of Counties
- NYS GIS community
- County/Local IT Directors
- NENA
- US Census Bureau
- CAD vendors / consultants
- GIS software vendors



Follow Up with Individual Counties

Initial information collection

- Contact sheet
- Questionnaire
 - Current CAD software
 - Existing Address Point data
 - Notification of new addresses
 - How PSAPs share addresses



On site meetings with County-level stakeholders

- Provide project overview
- Listen and understand their needs and concerns
- Identify and discuss data useful for the build
- Data Usage Agreement

Data for the Address Point Build

- Address Points
- Other data sources containing addresses
 - Local Carrier Exchange (LEC) subscriber database (9-1-1 Master Address list)
 - Tax Parcels
 - *NYS Address Points-NAVTEQ*
- Data useful for placing or refining address points
 - Building Footprints
 - MSAG Address Ranges
 - County/Municipal Streets
 - *NYS Streets*
- Common Place Names Table
 - For populating Landmark Name attribute/table

Source Usage Document

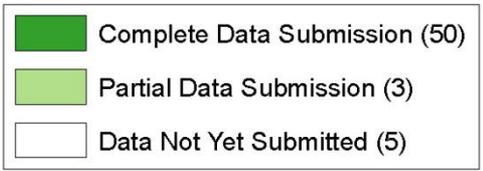
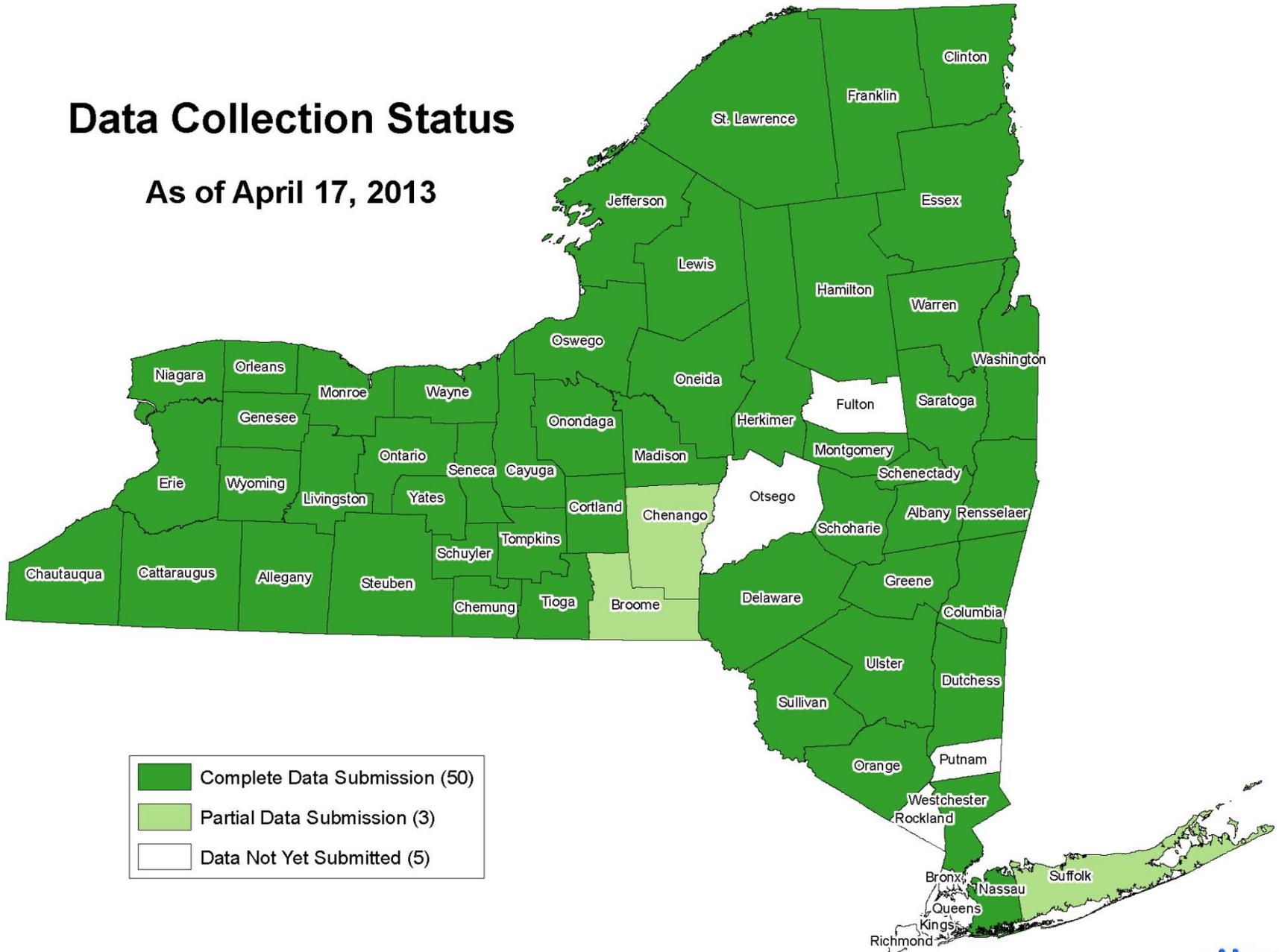
- Identifies data available for the data build
- Evaluates how data should be used
 - *Primary source*
 - *Secondary source*
 - *Reference source*
- Each county reviewed on a case-by-case basis
- County will provide input and review the SUD
- Important for:
 - *Gauging level of work*
 - *Prioritizing county build order for Contractor assigned work*
 - *Documenting data for the Contractor*

Data Usage Agreement

- Clearly documents:
 - How each individual dataset provided can be used
 - Who can use this source data
 - No redistribution of source data unless Data Owner instructs otherwise
 - Public availability of resultant Statewide Address Point file
 - Authorize use (or opt out) of provided parcel data into a publically accessible statewide parcel data layer
- Original (notarized) signature required
- Can have one or multiple Data Usage Agreements
- Data Usage Agreement terms apply to subsequent data deliveries

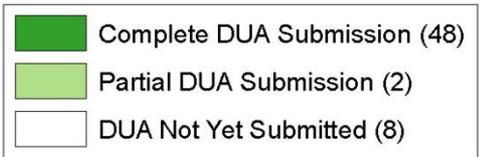
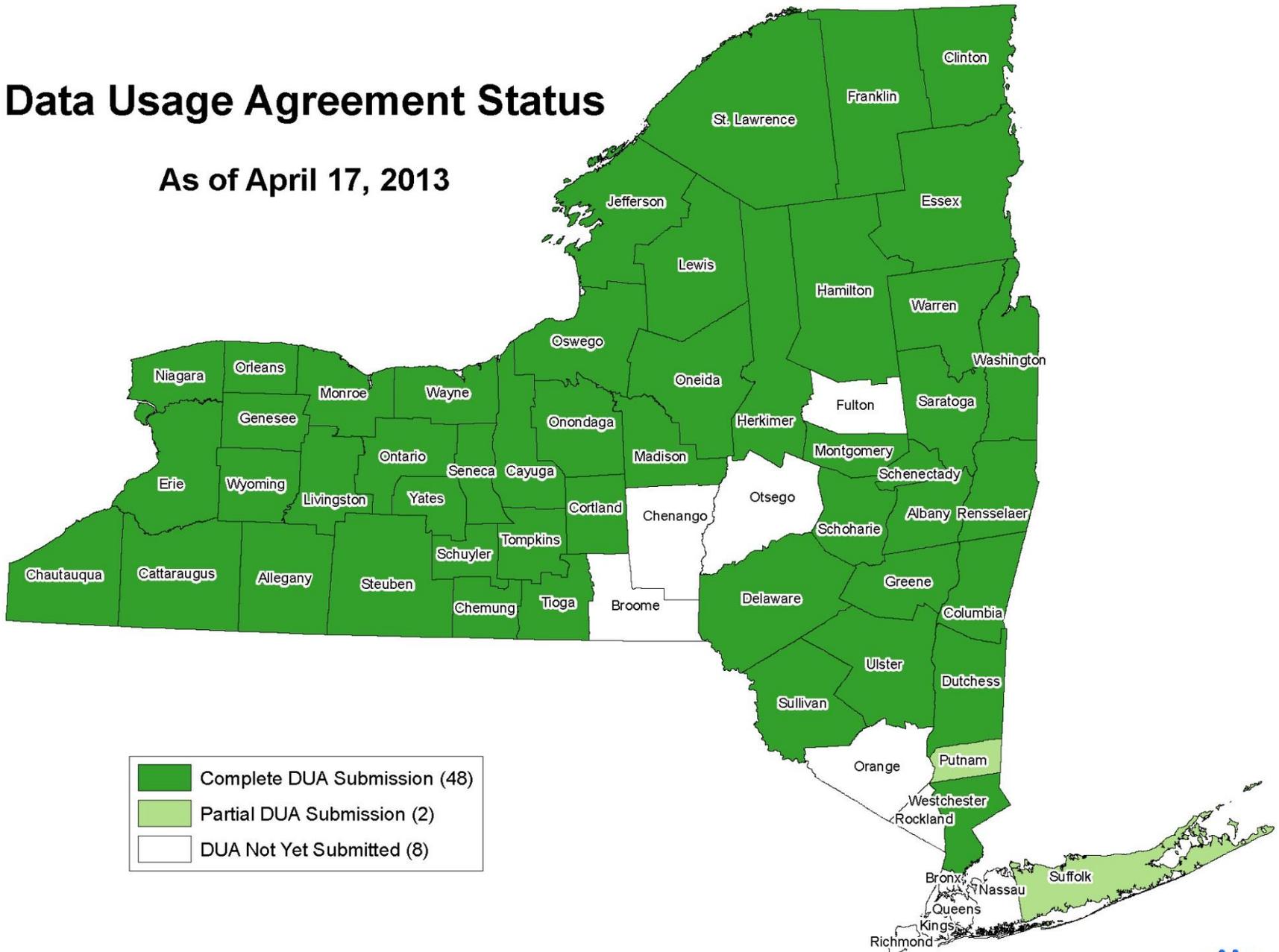
Data Collection Status

As of April 17, 2013



Data Usage Agreement Status

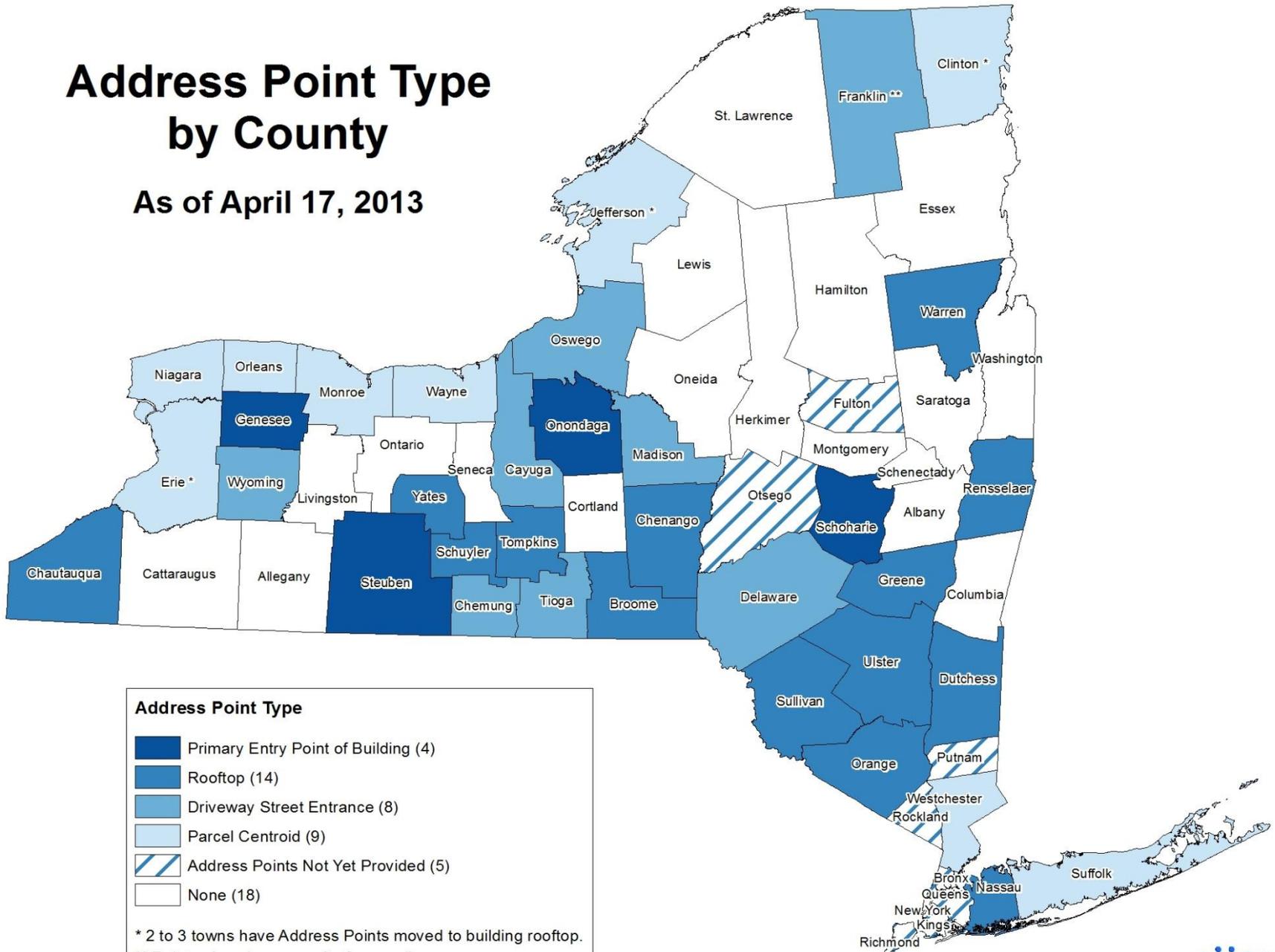
As of April 17, 2013



What we discovered through outreach and sample data review...

Address Point Type by County

As of April 17, 2013



Address Point Type

- Primary Entry Point of Building (4)
- Rooftop (14)
- Driveway Street Entrance (8)
- Parcel Centroid (9)
- Address Points Not Yet Provided (5)
- None (18)

* 2 to 3 towns have Address Points moved to building rooftop.
 ** Points placed as a result of geocoding.

SAM Contract

- Intrado/GDR team selected November 2012
- Contract approved in February 2013
- Kickoff Meeting March 18, 2013
- Funds expire September 2014 4/19
 - Less than 18 months from Kickoff
- Providing available subaddresses
- Deliverable Schedule by County
 - Approximately one County every 10 days
 - Projected total of 5 million principal address points
 - First deliverable 4/19/2014

 intrado®

 **GDR**
GIS Data Resources, Inc.



Delivery Acceptance

- County-wide review of:
 - Schema compliance
 - Domain values
- ANSI statistical sample
 - Random selection of points to be reviewed
 - Validate positional accuracy
 - Validate attribute accuracy
 - Tightened inspectional only allows 18 errors
 - Normal inspection only allows 21 errors
- Acceptance/rejection required within 10 days of delivery

Skating to where the puck is *going* to be



- Working on standards
- Building foundational data first
- Working with GIS vendors
- Working with CAD and other 9-1-1 vendors
- Will build towards detailed/more refined data over time

NENA Standards and Data Conversion Pilot Projects



Conversion to NENA Draft Standard

Before

ADDRESSID	ADDRNUM	PREFIX	STREETNAME	STREETTYPE	SUFFIX	SUBADDRESS
2888	101	East	SOUTH	ST		V GROTON
2828	104	West	SOUTH	ST		V GROTON

After

AddressNumberPrefix	AddressNumber	PreModifier	PreDirectional	PreType	SeparatorElement	StreetName	PostType
<Null>	101	<Null>	E	<Null>	<Null>	SOUTH	ST

Before

OBJECTID *	Shape *	ADDRESSID	ADDRNUM	PREFIX	STREETNAME	STREETTYPE	SUFFIX	SUBADDRESS
3749	Point	3749	<Null>	<Null>	STATE ROUTE 13	<Null>		C ITHACA
3750	Point	3750	<Null>	<Null>	STATE ROUTE 13	<Null>		C ITHACA
3751	Point	3751	<Null>	<Null>	STATE ROUTE 13	<Null>		C ITHACA
3752	Point	3752	<Null>	<Null>	STATE ROUTE 13	<Null>		C ITHACA

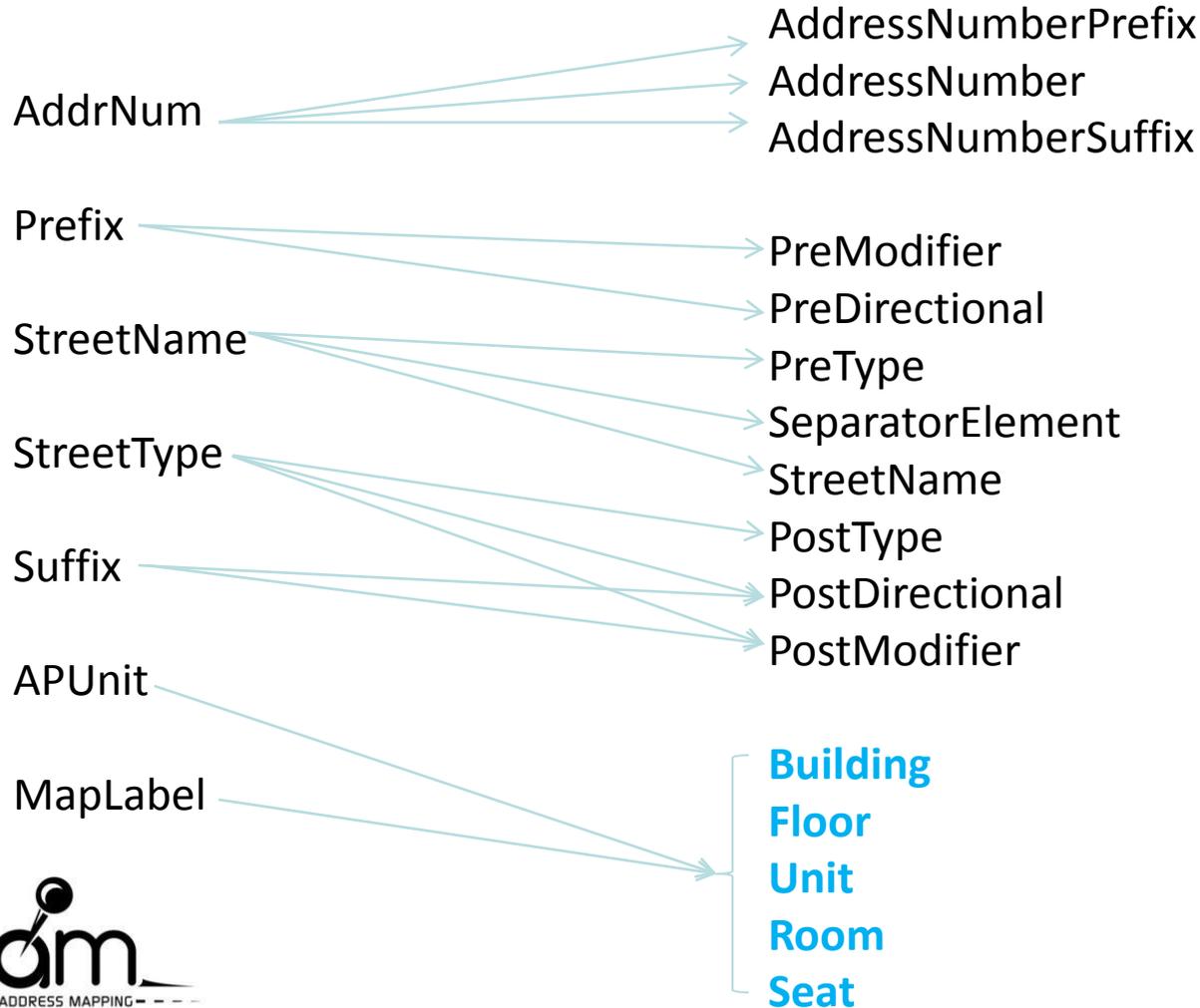
After

AddressNumberPrefix	AddressNumber	PreModifier	PreDirectional	PreType	SeparatorElement	StreetName	PostType
<Null>	<Null>	<Null>	<Null>	STATE ROUTE	<Null>	13	<Null>
<Null>	<Null>	<Null>	<Null>	STATE ROUTE	<Null>	13	<Null>
<Null>	<Null>	<Null>	<Null>	STATE ROUTE	<Null>	13	<Null>
<Null>	<Null>	<Null>	<Null>	STATE ROUTE	<Null>	13	<Null>

Field Matching

Current Tompkins Schema

NENA Standard



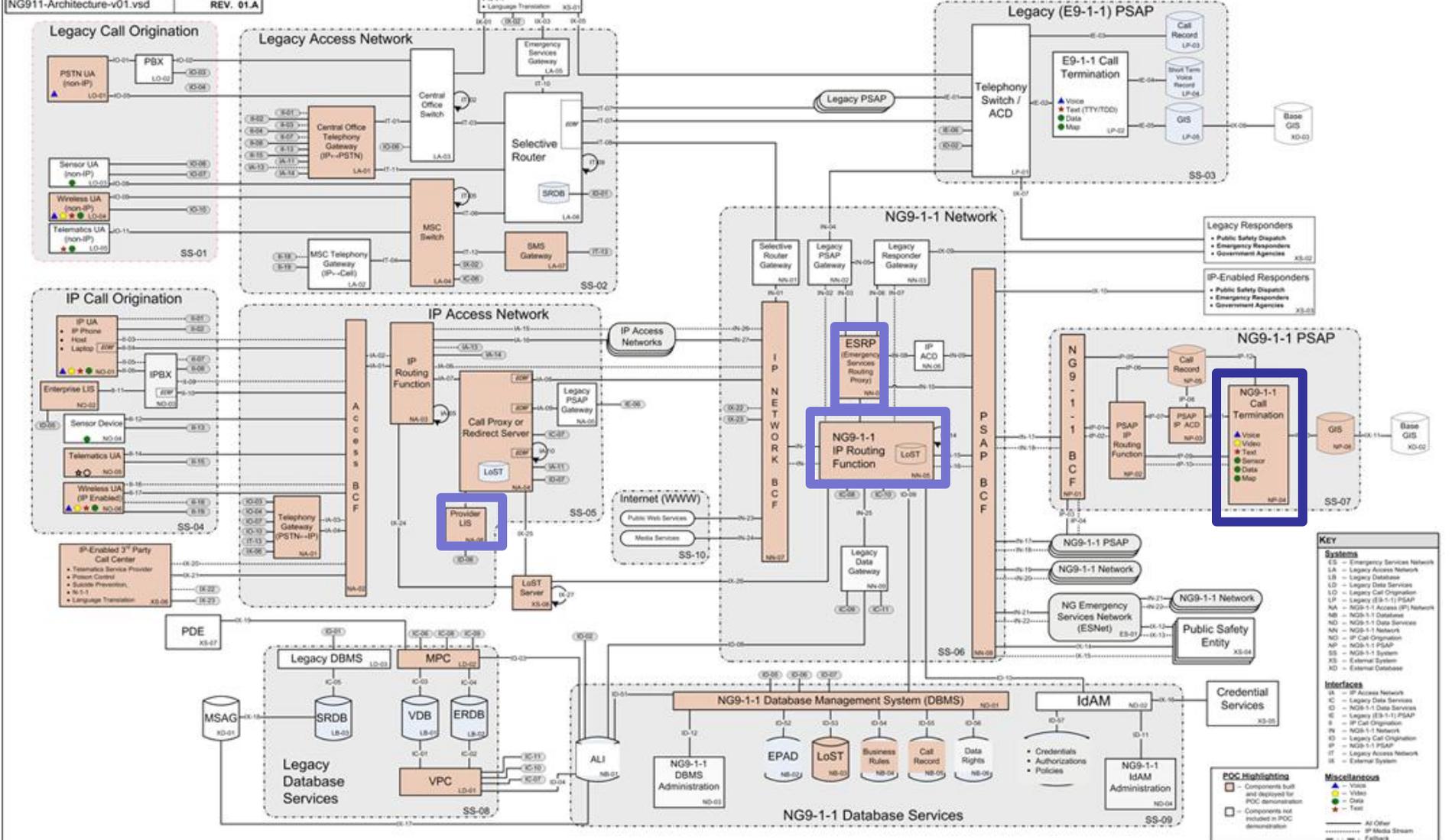
ESRI Parsing Template

- Working closely with ESRI, our GIS Software vendor, on an automated address standardizer
- Address standardization template for the FGDC format
- Work needed on subaddresses
- Not going to build a NENA version until the standard is complete

NG9-1-1 NENA i3

U.S. Department of Transportation – ITS JPO
Next Generation 9-1-1 Architecture
 ISSUE: November 2007 LEVEL 2 OF 2
 NG911-Architecture-v01.vsd REV. 01.A

Revisions		
Rev.	Description	Date
01.A	Initial Release	2007-Nov-01



--- STREET ADDRESS MAPPING ---

NENA GIS-Related Standards

- *Civic Location Data Exchange Format Standard*
 - Parses addresses into smallest components
 - XML used to share data components in a NG9-1-1 system
- *NG 9-1-1 GIS Data Model Standard*
 - Identifies the GIS data layers & defines attributes
- *Site /Structure Address Point GIS Data for 9-1-1*
 - Where to place a point & how many points?
- *Provisioning GIS Data (ECRF/LVF)*
 - Loading local GIS data into a national database
- *Discrepancy Reports*
 - Reports for errors discovered during data provisioning
- NENA web site: www.nena.org

NENA Standards

NG9-1-1 CLDXF Standard

- ✓ Standard completed & submitted to NENA leadership for review:
 - ✓ Internal NENA Authoring Committee Review
 - ✓ Internal NENA Development Group Review
 - ✓ Public review
- ✓ NENA Work Group reviews comments & updates document
- ✓ Second public review (ended 10/5/2012)
- ✓ NENA Workgroup reviews comments & updates document
- Revised standard submitted for publication (expected May or June 2013)

NENA Standards

NG9-1-1 Data Model Standard

- ✓ Standard completed & submitted to NENA leadership
- ✓ Internal NENA “Authoring Committee Review” (ended 6/22/2012)
- ✓ **NENA Workgroup reviews comments & updates document**
- Revised standard submitted to NENA leadership for review:
 - ✓ Internal NENA Development Group Review – expected June 2013 (10 business days)
 - ✓ Public review (15 business days)
- NENA Workgroup reviews comments & updates document
- Revised standard submitted for publication

NENA Standards

Site/Structure Address Point GIS Data for 9-1-1

- ✓ Workgroup initiated (8/15/2012)
- ✓ Draft standard
- Standard completed & submitted to NENA leadership for review:
 - ✓ Internal NENA Authoring Committee Review – expected by end of 2013 (10 business days)
 - ✓ Internal NENA Development Group Review (10 business days)
 - ✓ Public review (15 business days)
- NENA Workgroup reviews comments & updates document
- Revised standard submitted for publication

Want to Stay Informed?

- NYS 9-1-1 GIS Workgroup
 - Monthly webinar on 3rd Thursday at 1pm
 - Over 40 NYS 9-1-1 and NYS GIS professionals
 - Review/discuss NENA GIS-related standards
- Sam Newsletter
 - Bimonthly email of SAM Project activities

Thank you!

SAM Project Web Page:

<http://www.dhSES.ny.gov/ocs/streets>

