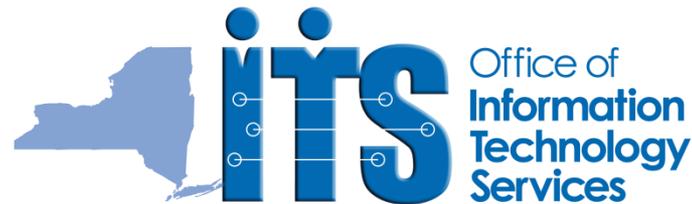




# Geocoding is Changing in New York State



Jason Baum, GISP  
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NYS GIS Program Office

NYS GeoCon 2013  
Saratoga Springs, NY  
November 12, 13

# Big Changes in NYS

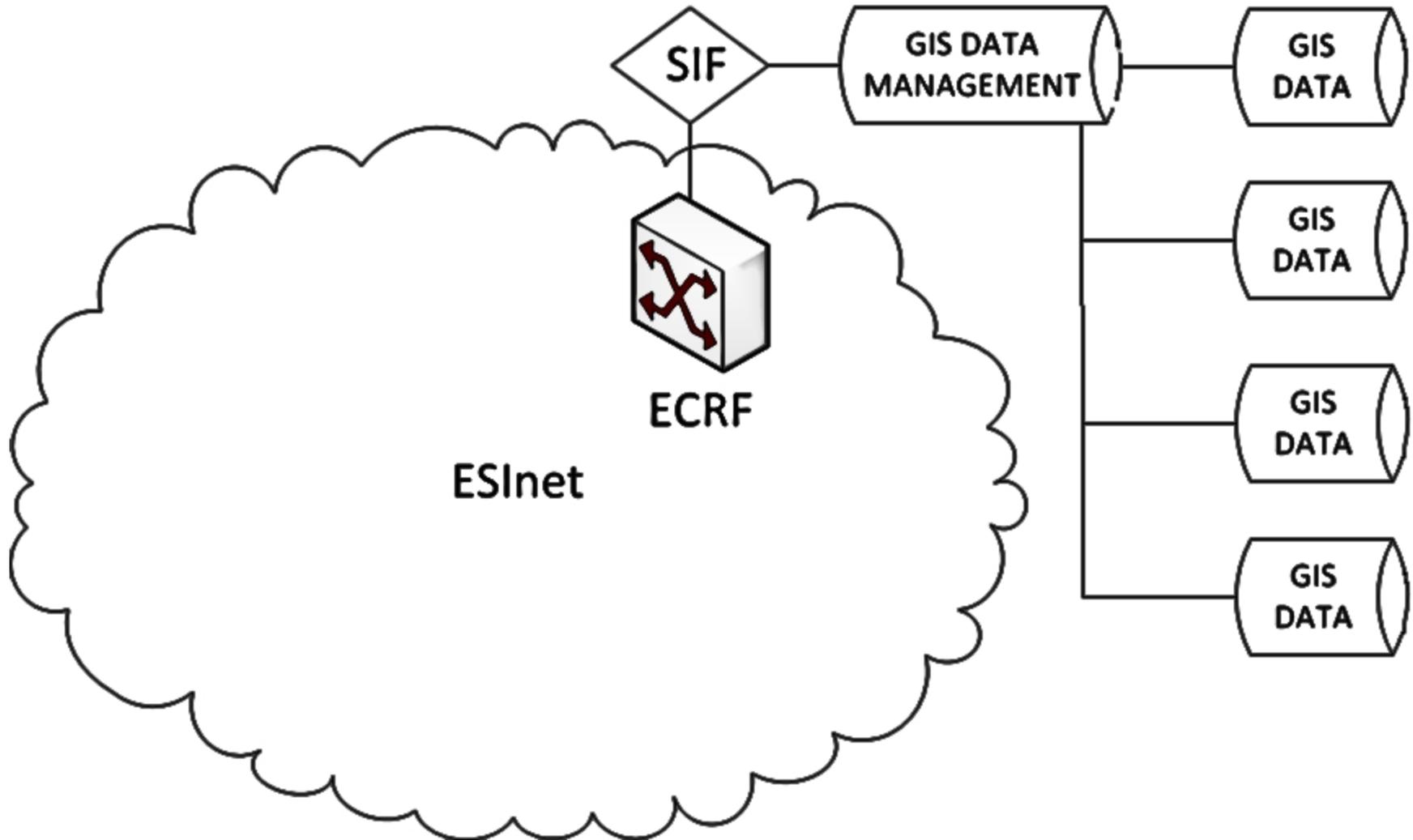
- Office of Information Technology Services
  - Consolidated IT operations and personnel into one agency
  - Most State GIS personnel are now in ITS
  - Created the position of Geographic Information Officer (GIO) in NYS:  
William Johnson

# SAM Project Objective

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



# NG9-1-1 and GIS Data



# SAM Project

- Address Data Development – Intrado

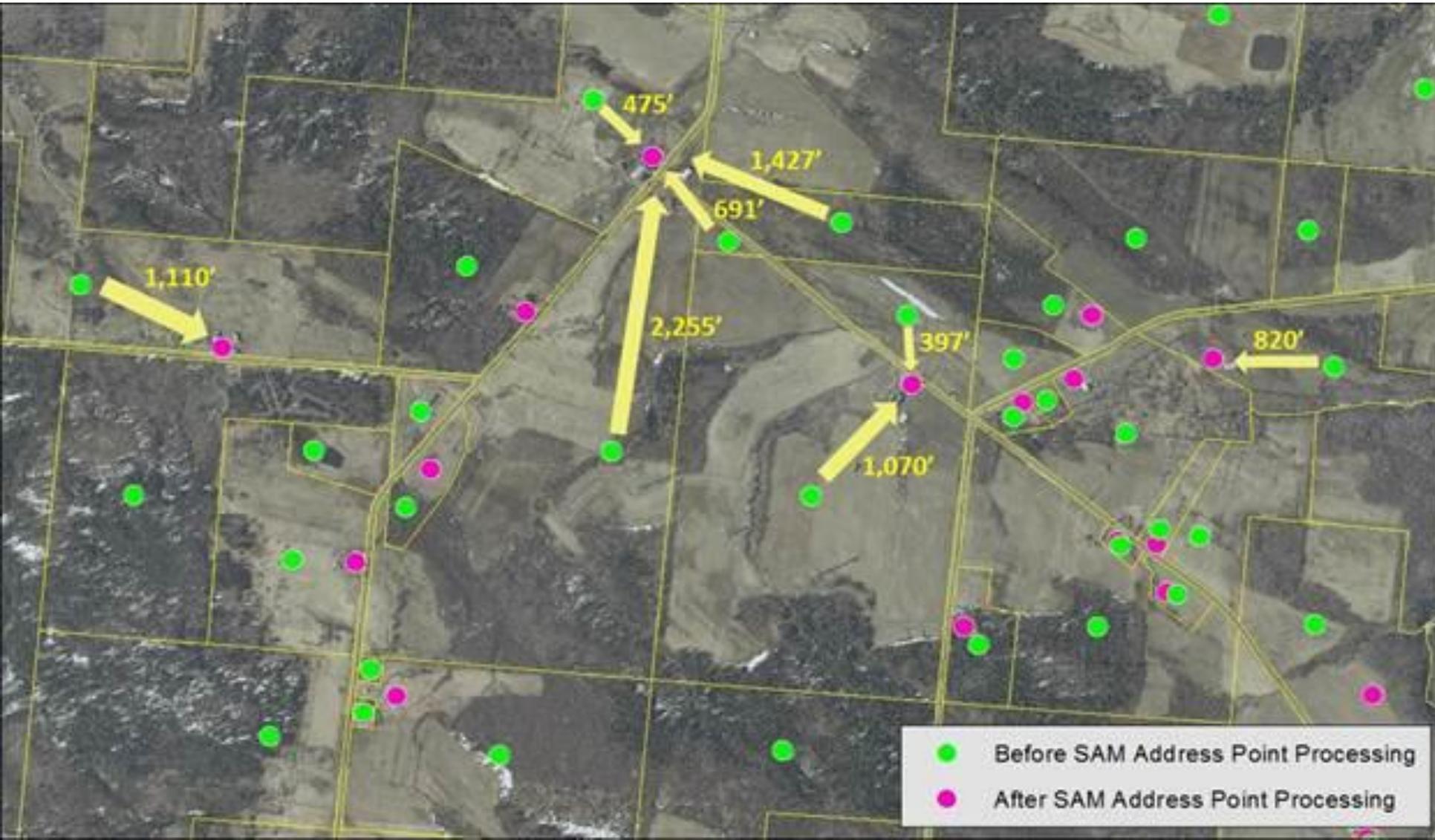
The logo for Intrado, featuring the word "intrado" in a dark blue, lowercase, sans-serif font. Above the letter "i" are three red triangles of increasing size, pointing downwards and to the right. A registered trademark symbol (®) is located to the upper right of the word.

- Address and Street Data Maintenance Tool - GeoComm

The logo for GeoComm, featuring the word "GeoComm" in a dark green, serif font. The "G" is significantly larger than the other letters, and the "o" is also larger than the "C".



# Street Address Mapping



Before

11686 State Route 812



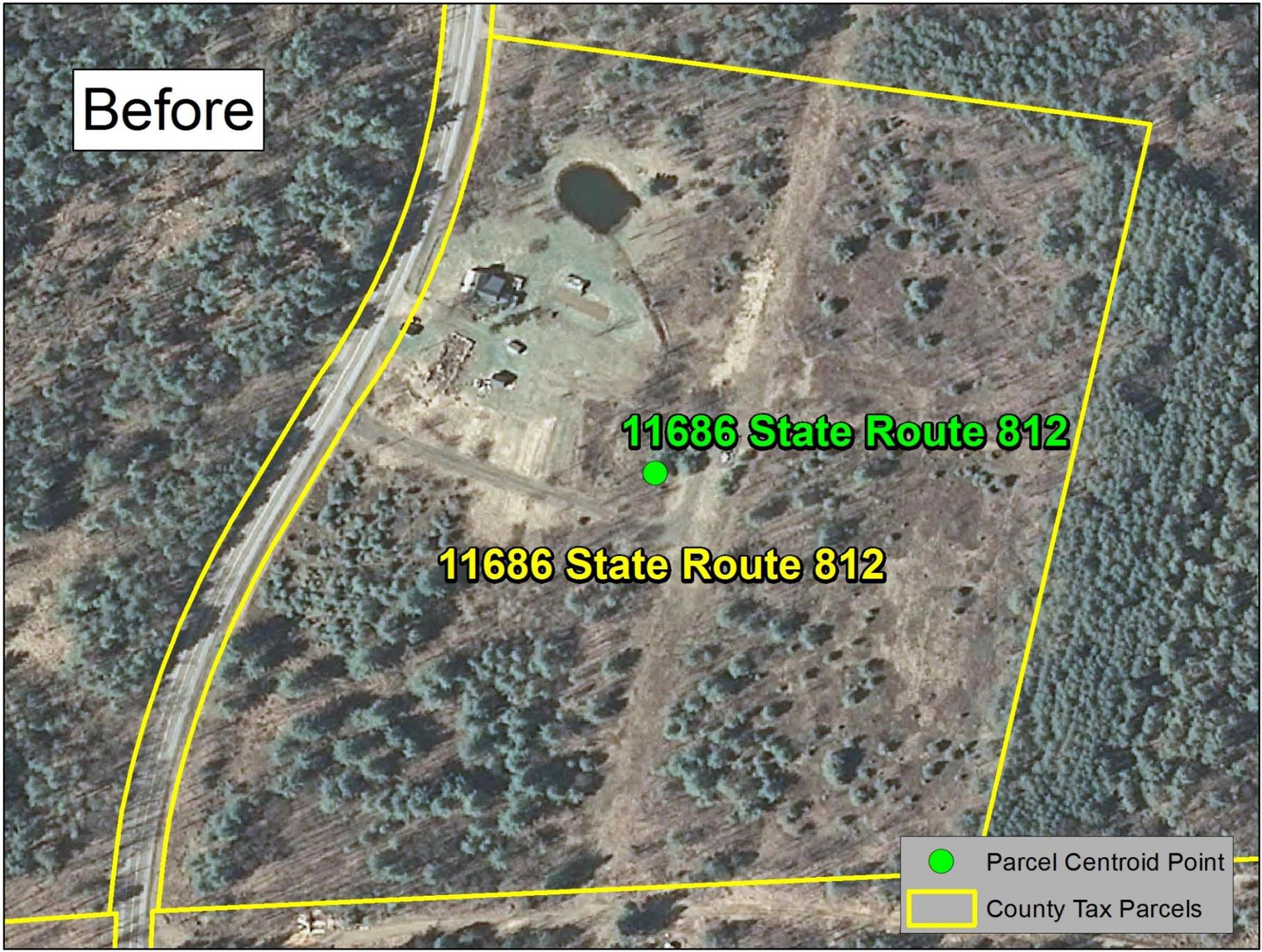
11686 State Route 812



Parcel Centroid Point



County Tax Parcels

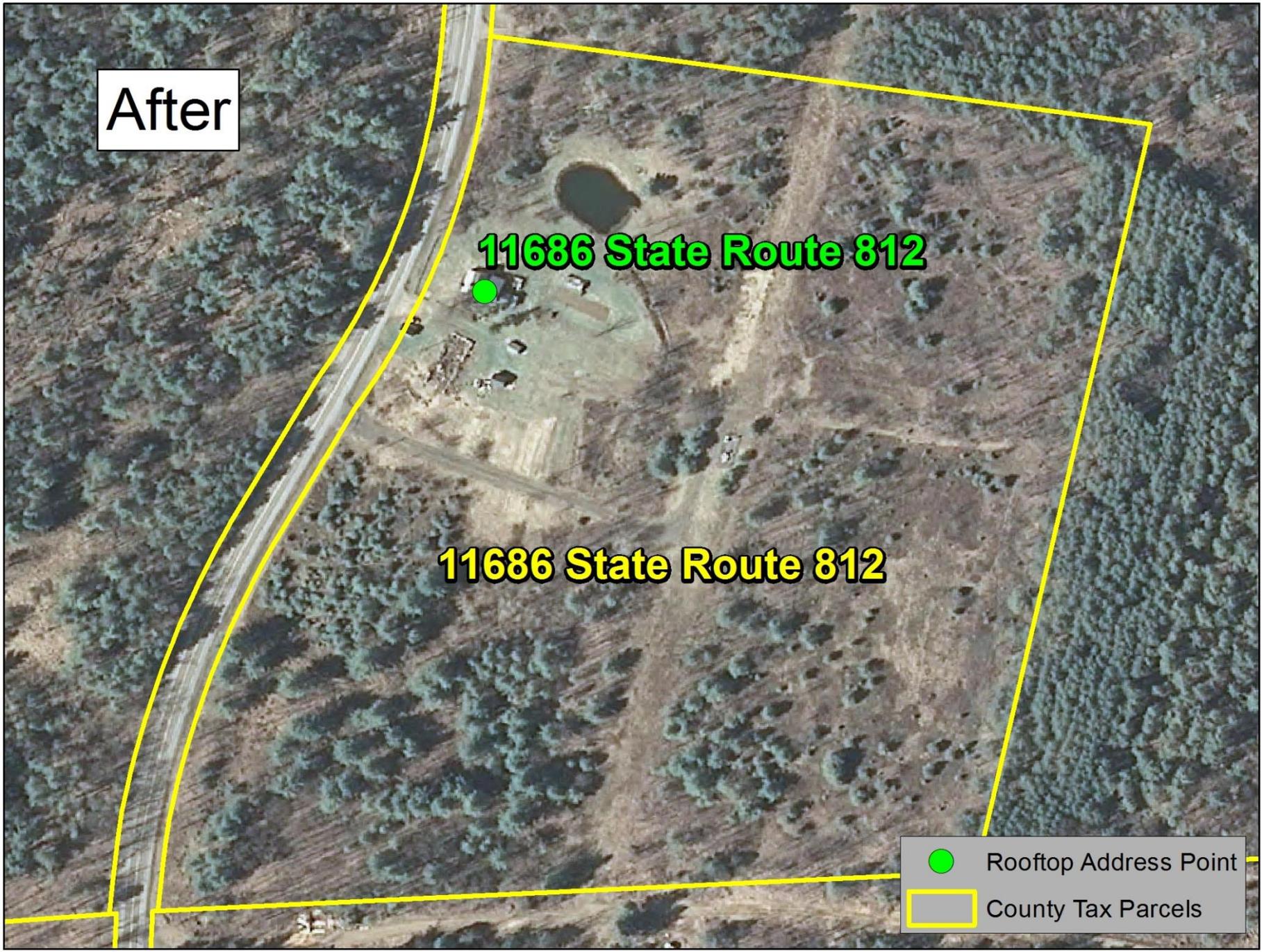


After

**11686 State Route 812**

**11686 State Route 812**

● Rooftop Address Point  
□ County Tax Parcels



Before



● Parcel Centroid Point

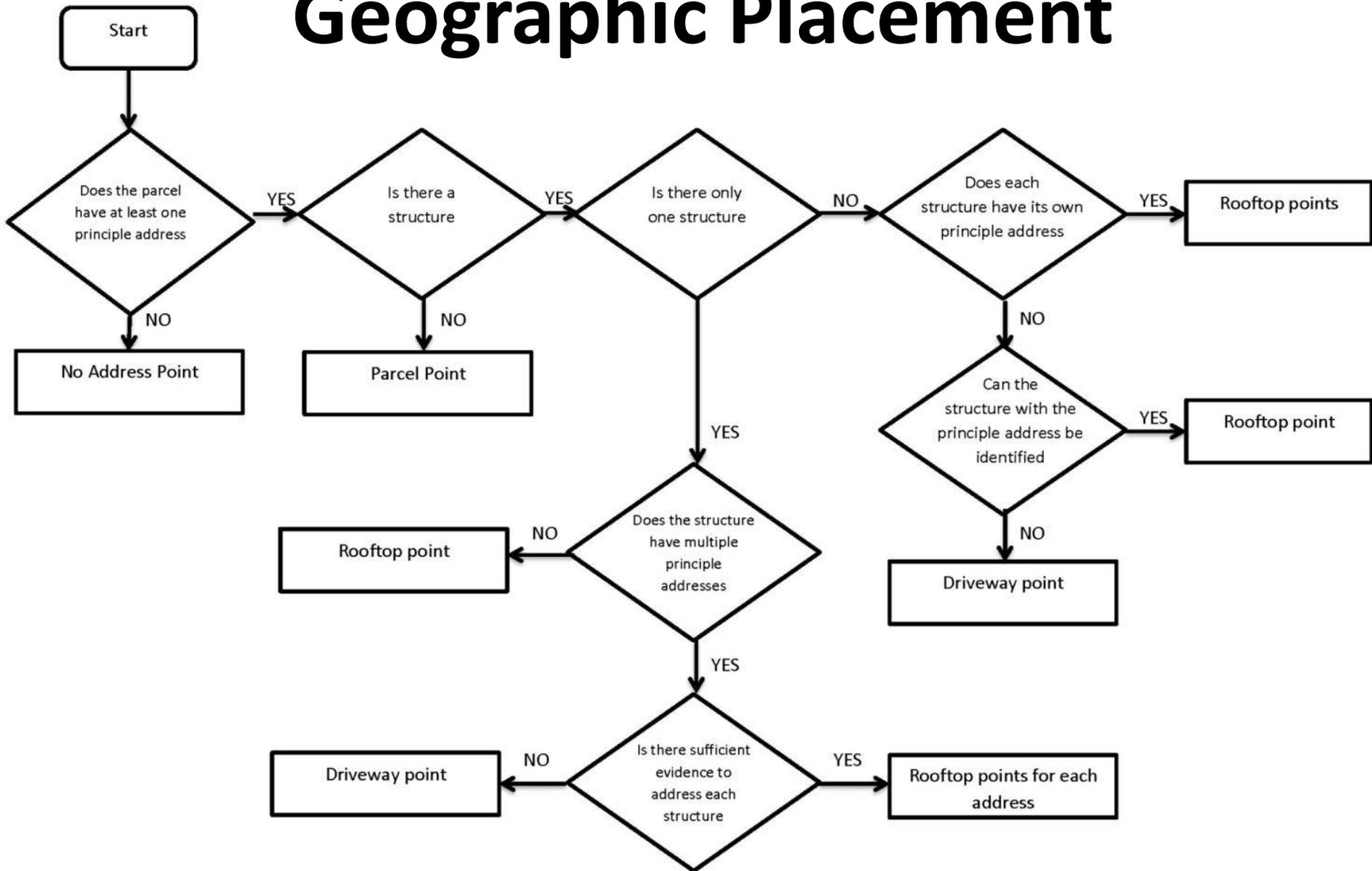
▭ County Tax Parcels

After



-  Rooftop Address Point
-  County Tax Parcels

# Geographic Placement



# Address Points Deliverable

(symbolized by Point Type)



# Address Points Deliverable

(symbolized by Point Type)



# Spatially Invalid Address Points

(addresses geocode only to street centerlines)



# Spatially Invalid Address Points

(addresses geocode only to street centerlines)



# Attribute Format - NENA

**Before**

ADDRUNITS	APUNIT
132 GRANT EGBERT BLVD E BLDG G28	2-7 FL 4

**After**

AddressNumber	StreetName	PostType	PostDirectional	Building	Floor	Unit
132	GRANT EGBERT	BLVD	E	BUILDING G28	FLOOR 4	2-7

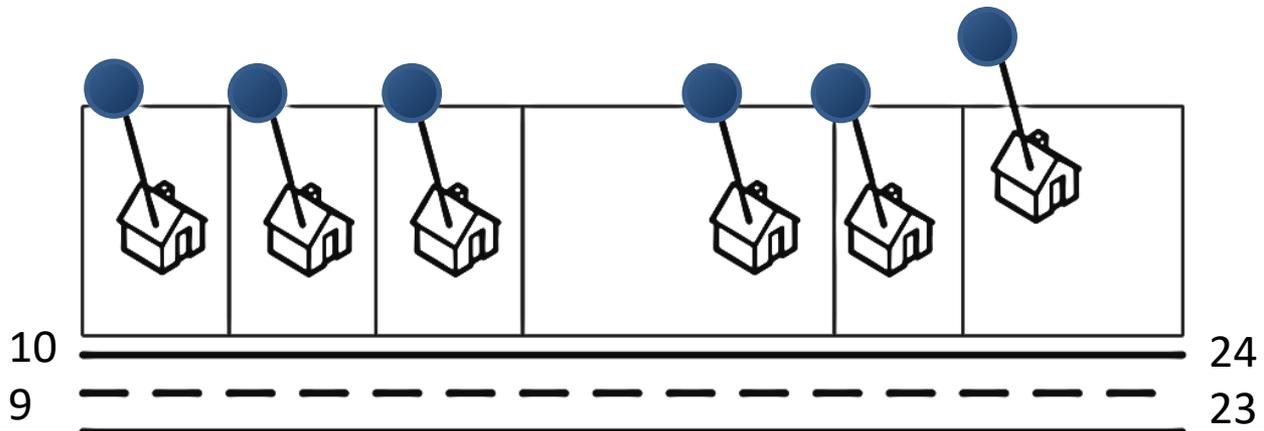
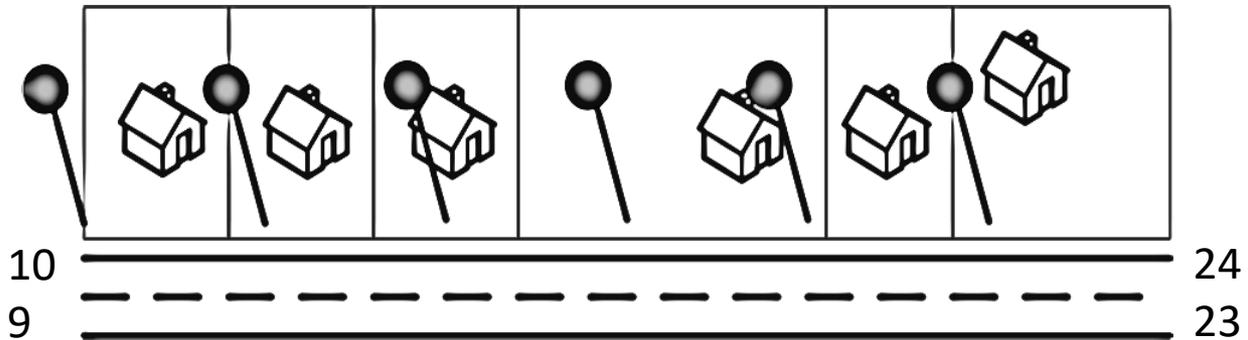
# Address Point Maintenance

The screenshot displays the Geolynx Server web application interface. The browser address bar shows the URL <https://maps.geo-comm.com/glserver>. The main map area shows a street view with several address points marked with blue squares and labels (e.g., 3919, 3912, 3911, 3915, 3916, 3919, 3920, 3923, 3931, 3927, 3924). A sidebar on the left contains the 'Web DMS Editing' panel, which includes an 'Addressing' section with various icons and an 'Editing Tools' section with a list of layers and their visibility settings. An 'Overview' map is visible in the top right corner. At the bottom, a 'Notification Search' table displays a list of notifications.

Notification Search	Cases	Time Stamp	Label	Note	Layer Name	Status	Jurisdiction
3	>	11/19/2012 3:58:09 PM	changereq - 11/19/2012 9:57:58 AM	new building point needed here	NEW BUILDING	Modified	Durham
		8/21/2012 4:59:13 PM	geocomm - 8/21/2012 11:59:08 AM		Corrected Location	Resolved	Durham
		8/16/2012 1:29:33 PM	changereq - 8/16/2012 8:29:26 AM	new 9-1-1 address needed	NEW BUILDING	Modified	Durham

# Geocoding Basics

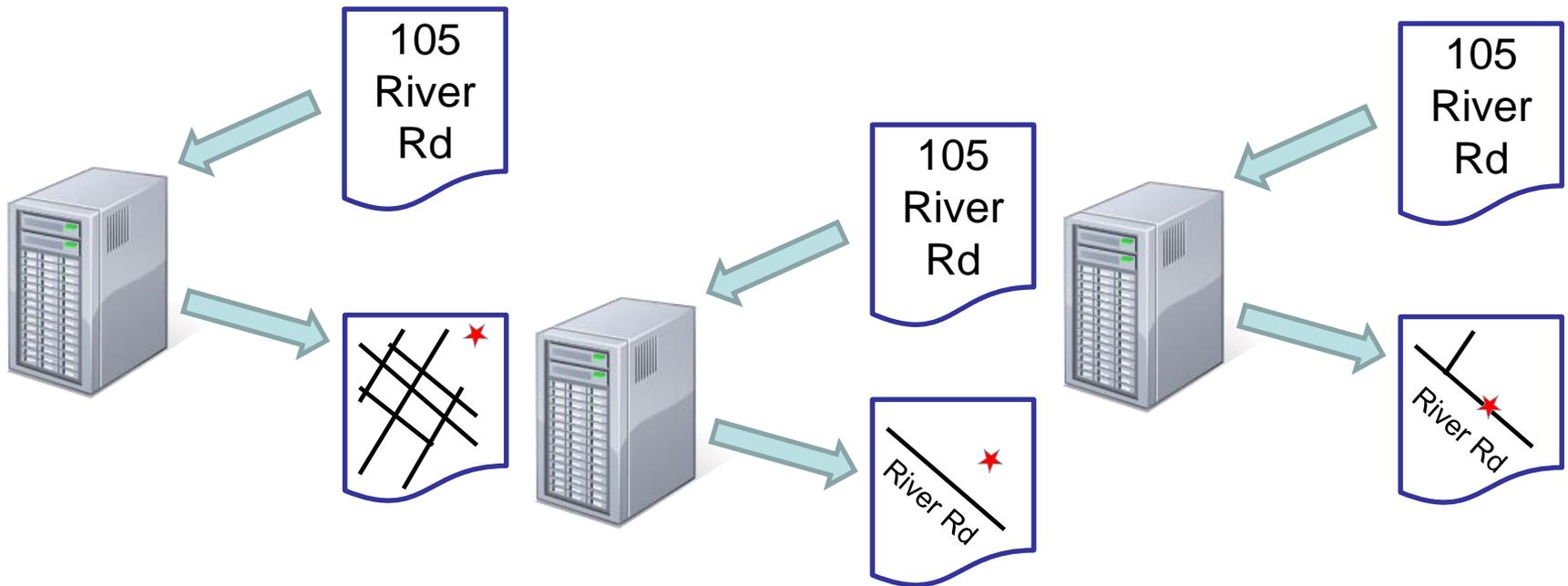
Address matching vs. interpolation



# Past Geocoding

*Identical input addresses yield different results!*

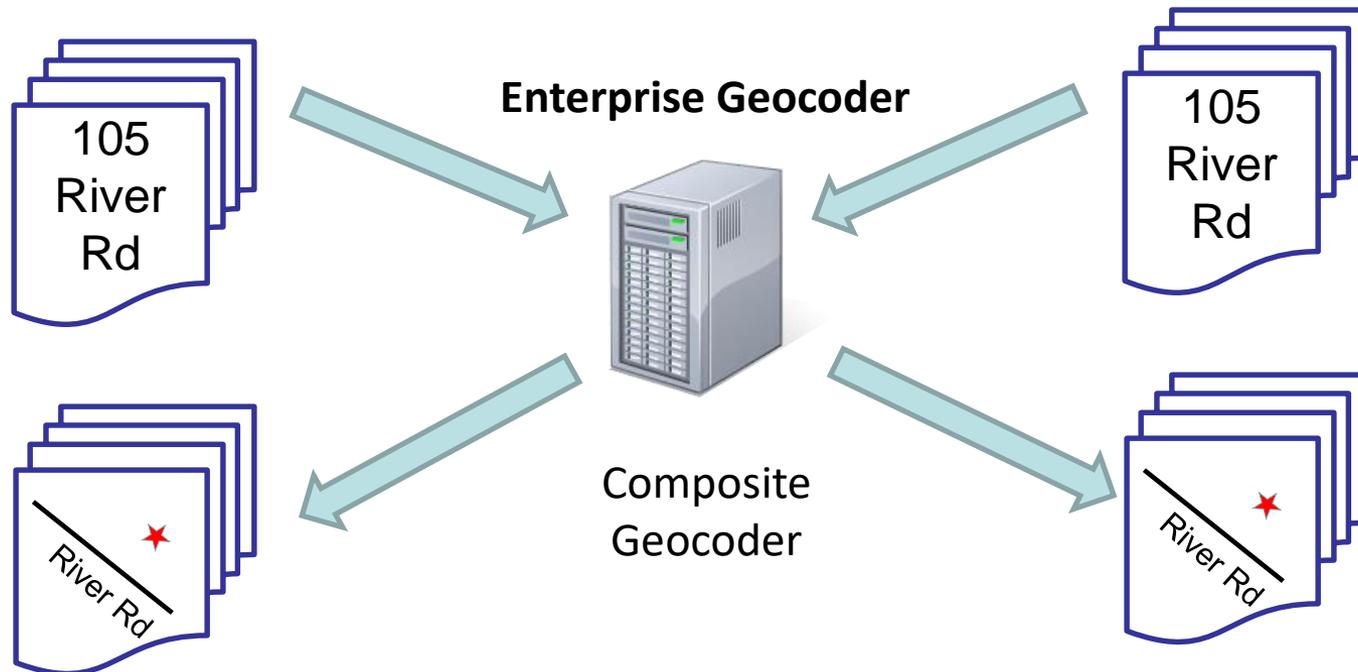
State & local agencies currently use their own data for geocoding, yielding different results



# Geocoding With a Centralized Service

*Identical input addresses yield identical results*

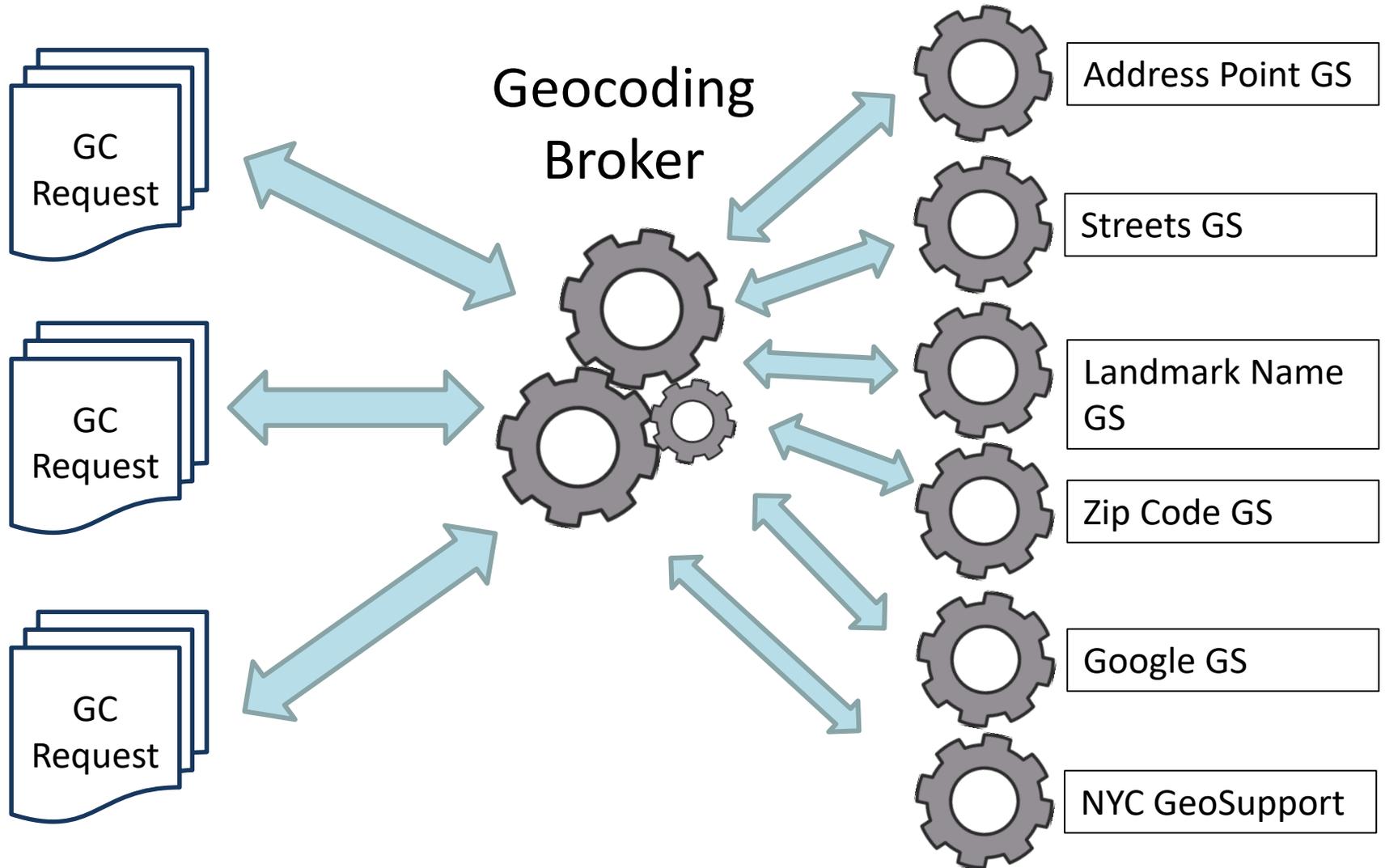
<http://gisservices.dhSES.ny.gov/arcgis/services>



# Composite Geocoder

- Cascading
  - SAM Address Points
  - NYS Address Points
  - Street Centerlines
  - Street Names
  - Zip Codes
- Duplicate data removed from lower tier locators
- Have to go through all locators even if you get an address point match

# Future geocoding



# Geocoding Broker

- Broker has intelligence to send addresses to the right service
- If it gets a hit it stops
- If it doesn't match to Address Point, request is logged for follow up
- By using the SAM Address Points and streets every day, they are improved for Emergency Response

# QUESTIONS?



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