

So How Does My GIS Data Get Used in a NG9-1-1 Call?

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GIS Data Layers in a NG9-1-1 System

• REQUIRED GIS data layers:

- Road Centerlines
- PSAP Boundary
- Emergency Service Boundary (must include separate layers for Law, Fire, and Emergency Medical Service)
- Site/Structure Address Points
- Absolutely necessary for:
 - Location Validation Function (LVF)
 - Emergency Call Routing Function (ECRF)
 - Call taking
 - Dispatch operations



GIS Data Layers in a NG9-1-1 System

• STRONGLY RECOMMENDED GIS data layers:

- Street Name Alias Table
- Landmark Name Part Table
- Complete Landmark Name Alias Table
- States or Equivalents
- Counties or Equivalents
- Incorporated Municipality Boundary
- Unincorporated Community Boundary
- Neighborhood Community Boundary
- Other Emergency Service Boundaries (e.g. Poison Control, Forest Service, Coast Guard, Animal Control, etc.)
- May assist or improve the functionality of the LVF and ECRF
- Extremely beneficial for call taking and dispatch operations

GIS Data Layers in a NG9-1-1 System

- Other RECOMMENDED GIS data layers:
 - Railroad Centerlines
 - Hydrology Line
 - Hydrology Polygon
 - Cell Site Location
 - Mile Marker Location
- Very useful for NG9-1-1 and E9-1-1 call taking and dispatch operations

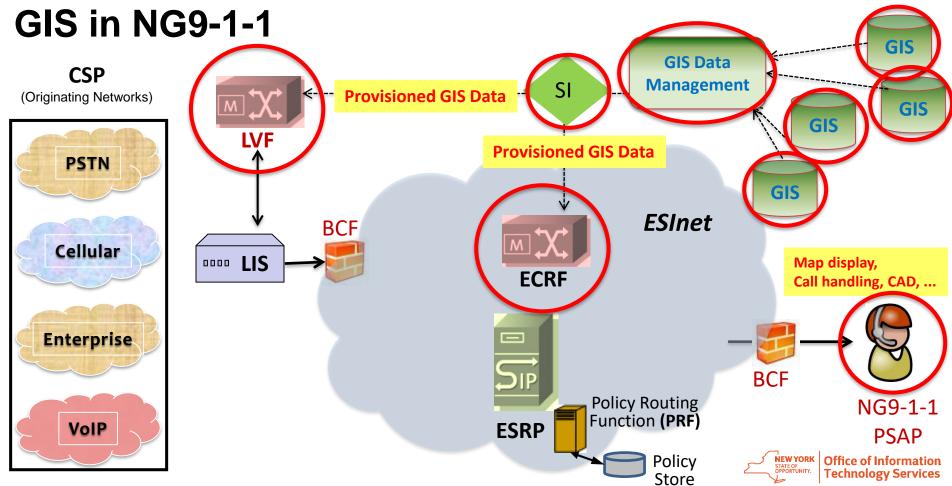


Essential Vocabulary NG9-1-1 Acronyms

- BCF: Border Control Function
- CSP: Customer Services Provider
- ECRF: Emergency Call Routing Function
- **ESRP:** Emergency Services Routing Proxy
- LIS: Location Information Server
- LVF: Location Validation Function
- **PRF:** Policy Routing Function
- SI: Spatial Interface
- VoIP: Voice Over Internet Protocol
- **PSTN:** Public Switched Telephone Network

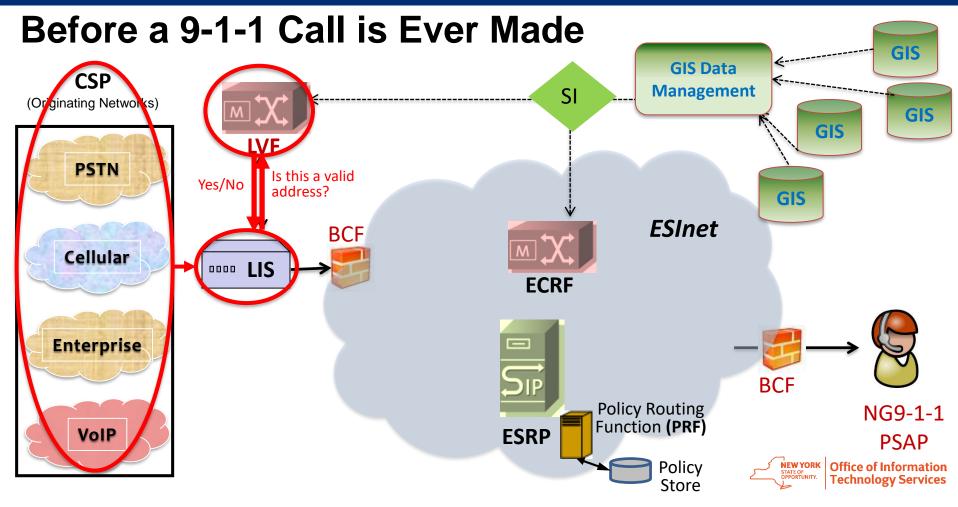


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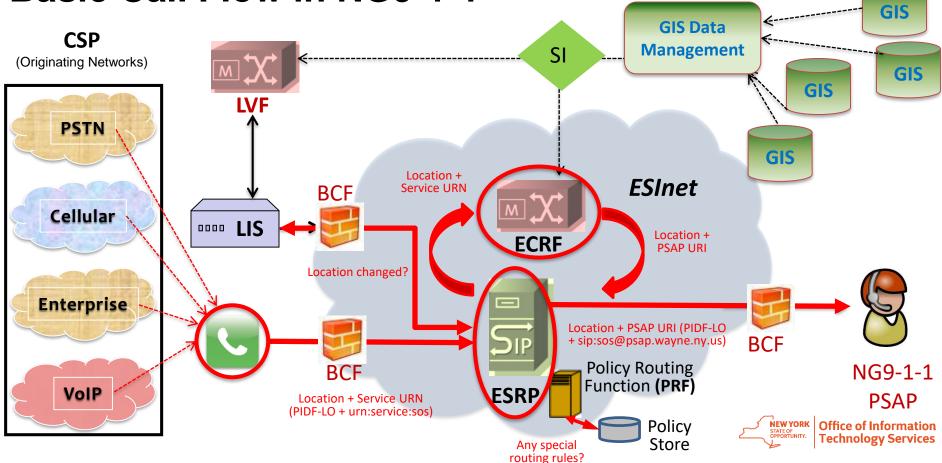
Source: Marc Berryman, The Future of GIS in the 9-1-1 World (NENA, 2016). Used with permission.

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Basic Call Flow in NG9-1-1



Thank you!

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