

NG9-1-1 GIS Functions and Documentation

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http://www.nena.org/

The screenshot displays the NENA website interface. At the top, there is a VPI logo with the text "NG9-1-1 Recording & Quality Assurance" and a "VIEW DEMO" button. A navigation bar includes links for Home, About Us, News, Events, and Contact. The main header features the NENA logo and the text "National Emergency Number Association" with the tagline "Emergency Help. Anytime, anywhere, any device." Below this is a secondary navigation menu with links for About, Membership, Events, Training/Certification, Standards/Resources, Committees, Programs, Gov Affairs, and Stats.

On the left side, there is a search bar labeled "Search NENA.Org" and a "SIGN IN" section with fields for Username and Password, a "Remember Me" checkbox, and a "Sign In" button. Below the sign-in section are social media links for Facebook and a "Connect" button.

The main content area is titled "NENA Standards & Other Documents" and includes a "More in this Section..." dropdown menu and social sharing icons. A large image of spiral-bound notebooks is featured. Below the image, there is a "Document Archives" link and a paragraph of text: "NENA, an ANSI-accredited Standards Developer, produces several classes of documents that are published by NENA as an information source for the industry. Documents are filed under their respective Committee. NENA reserves the right to revise the documents for any reason including, but not limited to, conformity with criteria or standards promulgated by various regulatory agencies, utilization of advances in the state of operational techniques or services described herein. Be advised that drafts of NENA documents during development phases are not legitimate for use to support business claims of NENA compliance for procedures, processes, and/or products. It is possible that certain federal, state or local regulations may restrict or require modification of the recommendations contained in this document. Therefore, these documents should not be the only source of information used. NENA members are advised to contact their legal

On the right side, there are three promotional banners: "NENA's official 9-1-1 Product and Service Guide" with a "CLICK HERE" button, "Zetron's MAX Call-Taking System" with a ZETRON logo, and "IP-enabled networks from AT&T" with a "Learn More" button.

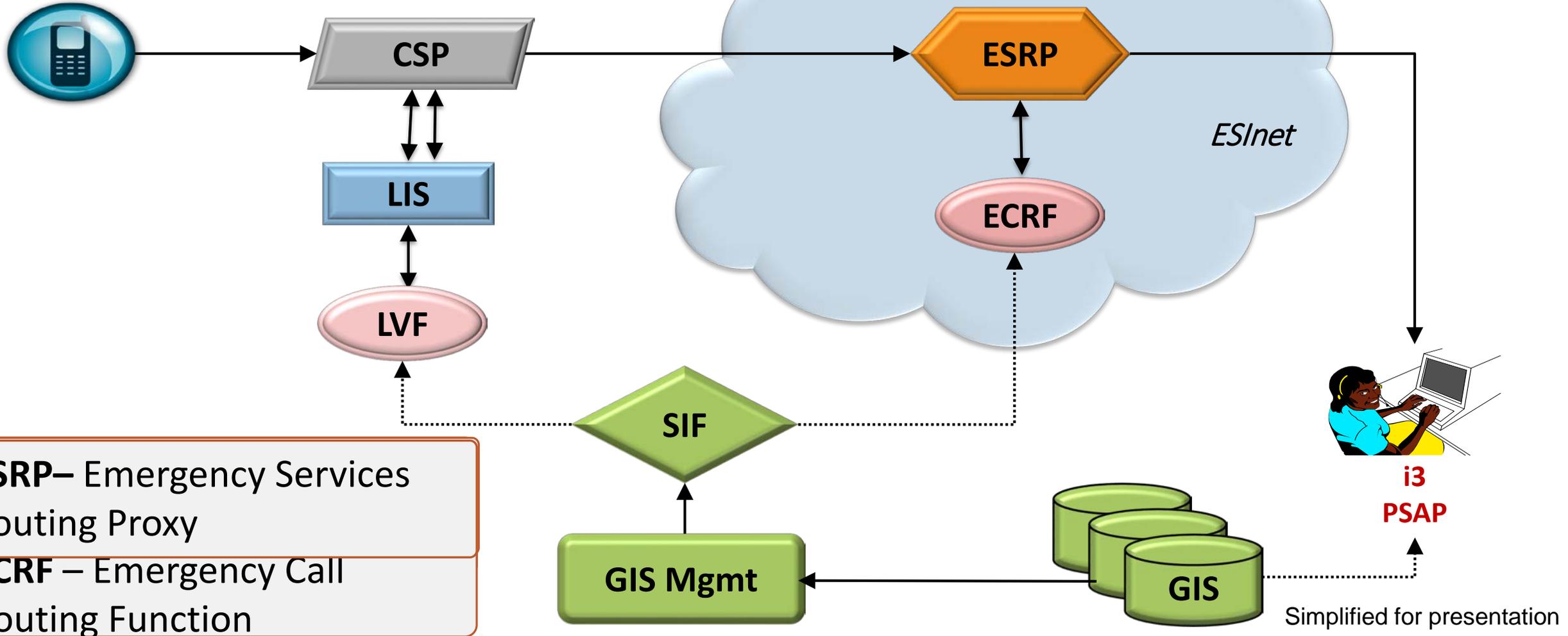
At the bottom left, there is a "NENA NEWS" section with a "MORE" link and two news items: "2/6/2015 Free 9-1-1 Location Accuracy Webinar - Watch Now On-Demand" and "2/3/2015 NENA Member Spotlight: Patricia Bigen Jones, ENP".

NG9-1-1 Acronyms

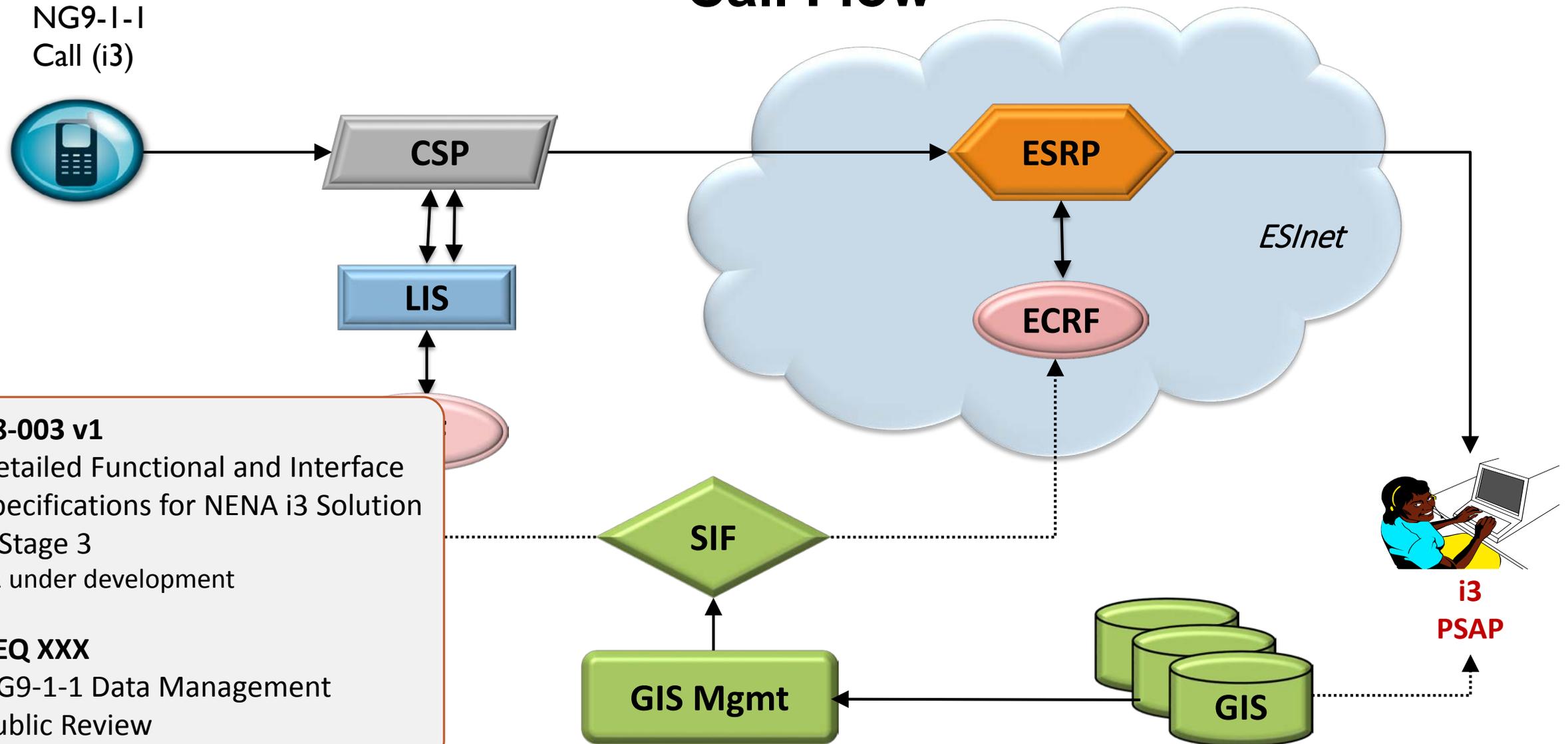
CSP	Customer Services Provider
ECRF	Emergency Call Routing Function
ESInet	Emergency Services IP Network
ESRP	Emergency Services Routing Proxy
i3 PSAP	PSAP capable of receiving IP-based signaling and media
LIS	Location Information Server
LVF	Location Validation Function
PIDF-LO	Presence Information Data Format – Location Objects
PRF	Policy Routing Function
SIF	Spatial Information Function

Next Generation 9-1-1 Call Flow

NG9-1-1
Call (i3)



Next Generation 9-1-1 Call Flow



08-003 v1

Detailed Functional and Interface Specifications for NENA i3 Solution – Stage 3
v2 under development

REQ XXX

NG9-1-1 Data Management
Public Review

Detailed Functional and Interface Specifications for NENA i3 Solution Stage 3

- Technical document
- Describes how NG works after transition
 - detailed functional and external interfaces to NG9-1-1 functional elements
- Includes gateways for legacy wireline and wireless origination networks
- v2 – under development in workgroup

NG9-1-1 Data Management

- Public review expected Spring 2015
- Guidelines for communicating issues or status of various elements
- Issues related to GIS-related errors
 - Minimum report content requirements
 - Timeframe for error resolution timeframe
- Discrepancy Report
 - Gap/Overlap in Boundary Layers
- Performance Statistics
 - GIS Data Provisioning Performance Statistics Report

GIS Data Quality

02-014 v1

GIS Data Collections and Maintenance Standards

71-501 v1

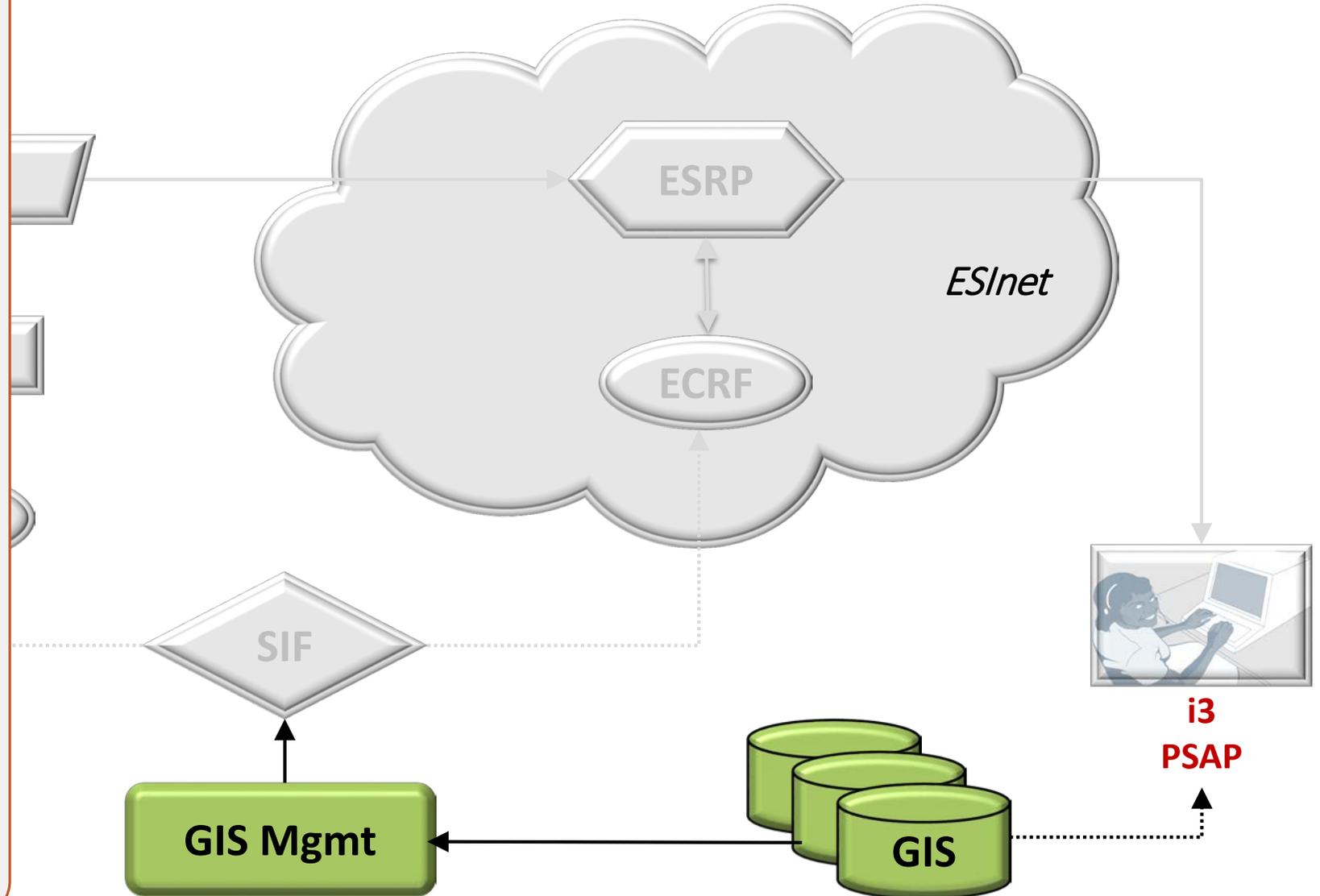
Synchronizing GIS Databases with MSAG and ALI

INF-XXX

Development of Site/Structure Address Point GIS Data for 9-1-1 Committee Review

STA-XXX

Standard for NG9-1-1 GIS Data Model
All Committee Review



GIS Data Collections and Maintenance Standards

- Ensure the accuracy and integrity of the GIS data collected and maintained for use in PSAPs and 9-1-1 data bases
- Maintenance issues
- Maintenance across data layers
- GPS equipment recommendations (spatial accuracy)

Synchronization GIS database with MSAG and AII

- Informational document
- Ensure attribute accuracy for 9-1-1 functions
- Recommended analysis processes
- Recommended error resolution process
- 98% synchronization between databases for NG9-1-1

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

- Workgroup completed – going into review process
- Address point placement methodologies for 9-1-1
- Best practices
- Takes into account NG9-1-1 functionality

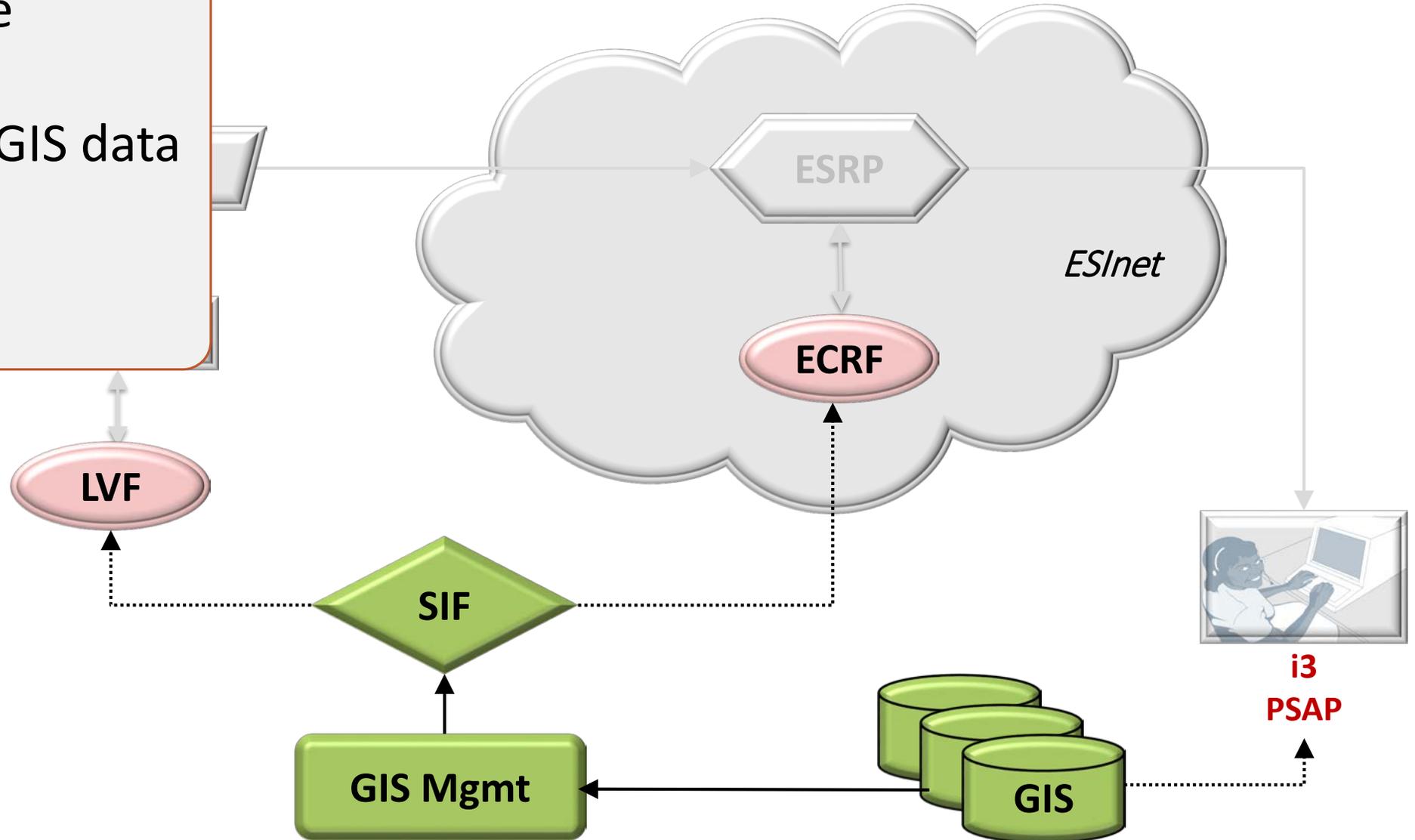
NG9-1-1 GIS Data Model

- All Committee review comments
- Support location information conveyed in the PIDF-LO
- Support NG9-1-1 systems, databases, call routing, call handling, and related processes
- Required layers
 - Authoritative Boundary
 - Road Centerline
 - Site Structure Address Points (strongly recommended)
 - Emergency Service Boundary(s)
 - PSAP Boundary(s)
- Standardized data fields

STA- XXX-

Standards for the Provisioning and Maintenance of GIS data to ECRF/LVF Public Review

Provisioning GIS Data



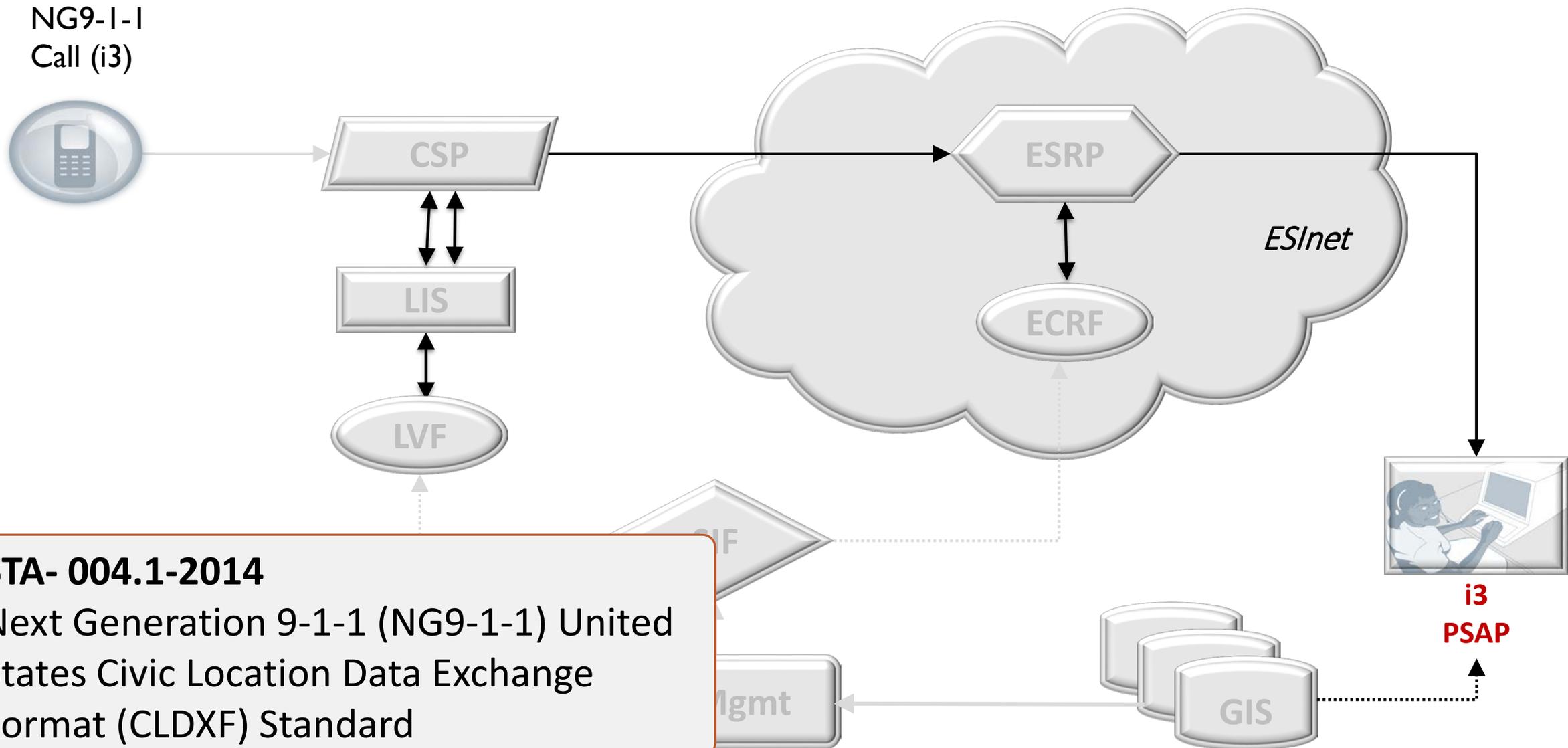
SIF – Spatial Information Function

- *Specialized form of a GIS that may be implemented on top of a conventional GIS so long as the NG9-1-1 interfaces are available*
- *Not standardized in i3*

Standards for the Provisioning and Maintenance of GIS data to ECRF/LVF

- Re-release for public review – Spring 2015
- Operational processes and procedures to support i3 ECRF and LVF.
- GIS data requirements
 - QA/QC
 - Ownership, sharing and distribution
- Provisioning GIS data to ECRF/LVF
- Deployment considerations

CLDXF – Address Parsing



STA- 004.1-2014
Next Generation 9-1-1 (NG9-1-1) United States Civic Location Data Exchange Format (CLDXF) Standard

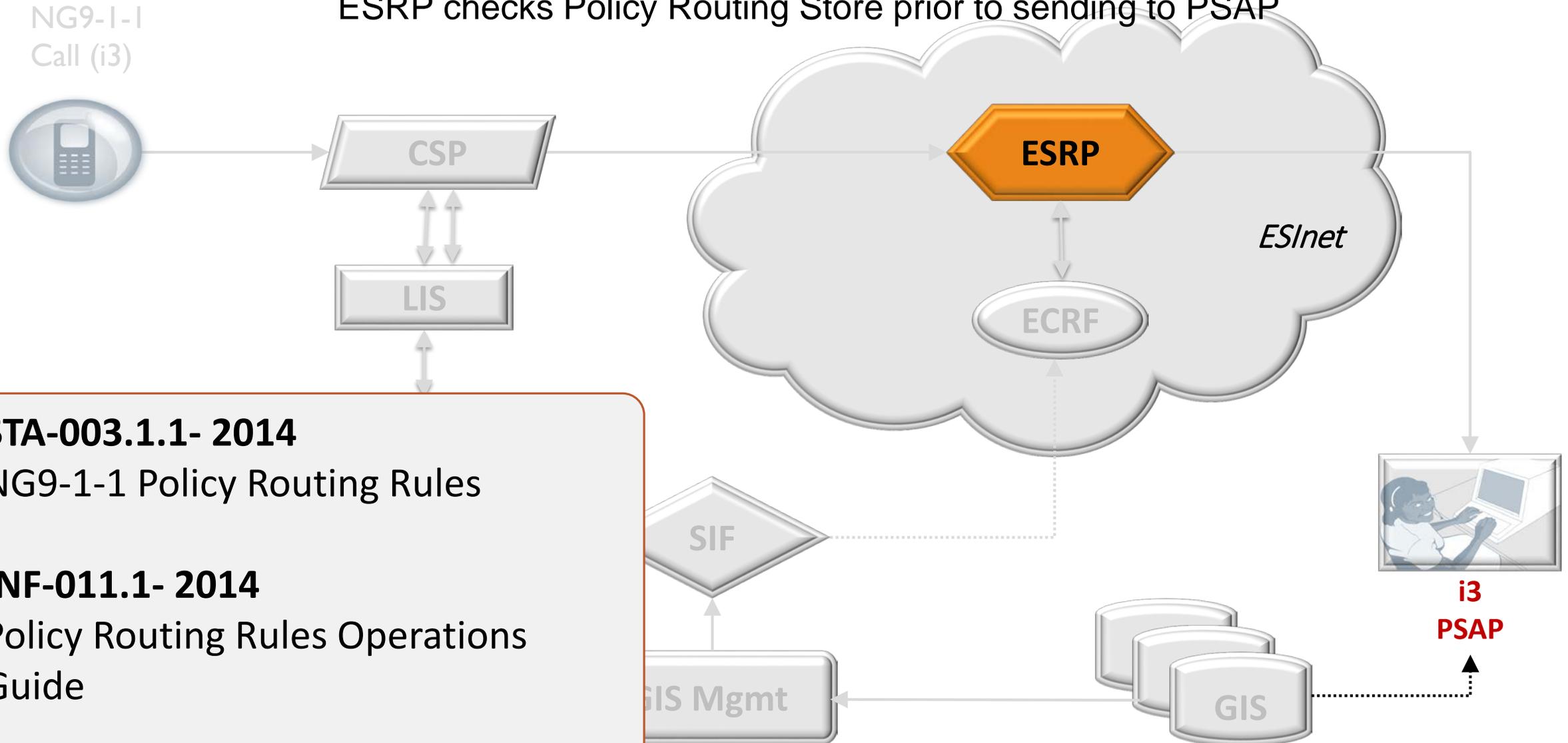
STA- 004.1-2014

CLDXF Standard

- Definitive set of core civic location data elements that support emergency call routing and dispatch.
- Map a profile between PIDF-LO and those same NENA core civic location data elements.
- Provide illustrative examples of address parsing.
- Map those civic location data elements to the corresponding Federal Geographic Data Committee, United States Thoroughfare, Landmark, and Postal Address Data Standard, Document Number FGDC-STD-016-2011 set of data elements, which was sponsored by the Urban and Regional Information Systems Association (URISA) and the National Emergency Number Association (NENA).

Policy Routing Store

ESRP checks Policy Routing Store prior to sending to PSAP



STA-003.1.1- 2014

NG9-1-1 Policy Routing Rules

- Handles call diversion if target PSAP not available
- Backup PSAPs accessibility to GIS data

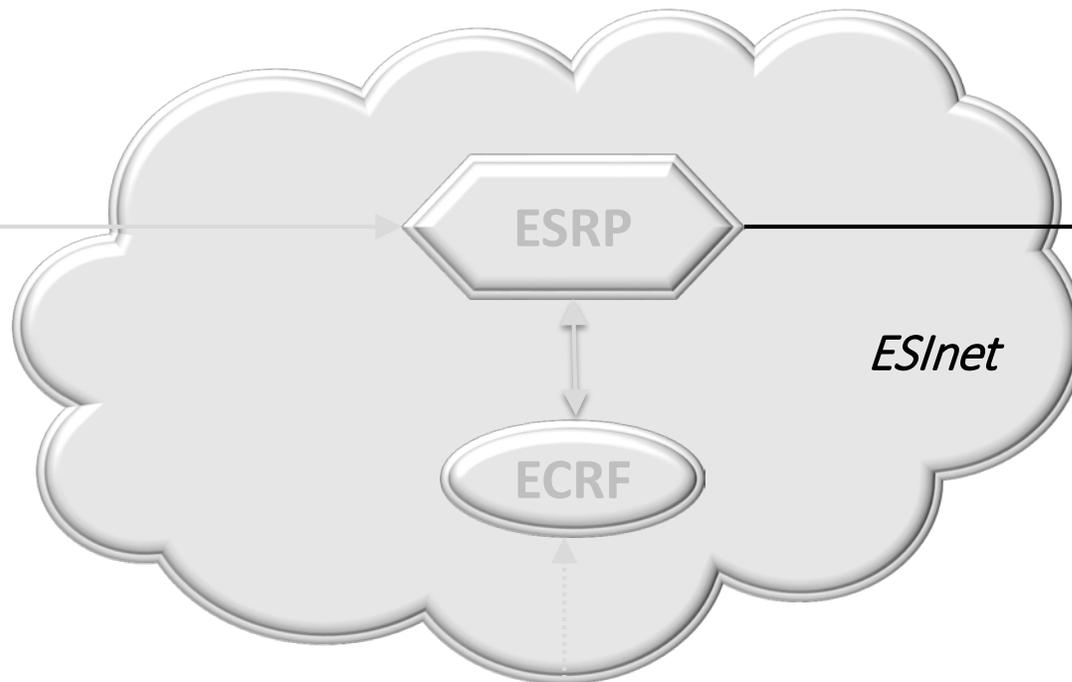
INF-011.1- 2014

Policy Routing Rules Operations Guide

- Assist 9-1-1 Authorities in development and use of PRR

Additional Data

NG9-1-1
Call (i3)



**i3
PSAP**

71-001 v1

NG9-1-1 Additional Data

Standard

- Device
- Caller
- Location



NG9-1-1 Additional Data Standard

- Three types of data
 - Device
 - Caller
 - Location
- Location
 - Accessible existing data
 - GIS support data

NG9-1-1 requires ACCURATE and CURRENT GIS data

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