



## NENA Baseline Next Generation 9-1-1 Description

NENA Baseline NG9-1-1 is a description of a basic set of features & functions that constitute a NENA Standards based Next Generation 9-1-1 solution, on the path to an end-state i3 architecture. The i3 architecture components are only one aspect of NG9-1-1. There are more components that make up a complete NG9-1-1 “system”. As future needs are identified, overall NG9-1-1 standards will be updated.

In order to be fully compliant with NENA NG9-1-1 definitions, upon implementation the baseline NG9-1-1 system must include the functions of today’s E9-1-1 system, replicated in IP protocol and structures as defined by NENA NG9-1-1 standards, including all network and PSAP components of the system and a number of capabilities beyond E9-1-1 functions, such as the basic ability to support non-voice multimedia, such as text and video. While these forms of communication may not be immediately available through originating service providers, baseline NG9-1-1 has the system functionality to support multimedia, perform routing, provide for call media logging, and enable PSAP/caller interactive communications (voice & non-voice). Therefore, as originating service provider IP based standards are finalized and aligned with NENA NG9-1-1 standards, disruptive software application or hardware changes are not expected in NG9-1-1 systems.

Additional minimally required components or capabilities of baseline NG9-1-1 include, but are not limited to:

1. ESInet (Emergency Service IP network)
2. GIS data creation to support 3 and 6 below, and associated management tools
3. Publication of Authoritative NG9-1-1 Validation related Databases for use by OSPs and Location DB providers to pre-validate civic addresses (in replacement of MSAG), supported by LVF and LIS functionality<sup>1</sup>
4. Publication of Authoritative NG9-1-1 Routing Data for state and regional levels
5. Support for legacy originating services via gateways (e.g., access to traditional ALLI databases)
6. Geospatial controlled IP software call routing function (ECRF and ESRP)<sup>2</sup>
7. The ability to control call routing based upon a policy routing function (PRF) with standardized methods to define/build and control Policy Rules
8. Additional data acquisition after call delivery to facilitate call processing by calltaker or other public safety entities
9. Support for transfer of calls with accumulated calltaker notes and added data, or an access key to such data, to any authorized entity interconnected by ESInets
10. Ability to interconnect with other NG9-1-1 systems and to interwork with E9-1-1 systems
11. Support for system monitoring/logging/discrepancy reporting necessary to support troubleshooting and ongoing operation and maintenance

The above minimally required components or capabilities of baseline NG9-1-1 encompass architectural, security, data, confidentiality, interconnection with other 9-1-1 systems, and operations aspects of NG9-1-1 service as defined in NENA Standards and related documentation.

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<sup>1</sup> LIS or its equivalent is required to support interactive validation functions, and is especially crucial to support ‘over the top’ IP based originating services

<sup>2</sup> Emergency Call Routing Function (ECRF) and Emergency Service Routing Proxy (ESRP)