

Interoperable Definition for Commonwealth of Virginia NG9-1-1 ESInet¹

Summary of requirements for an Opt-out ESInet solution to be considered interoperable with the Fairfax County NG9-1-1 ESInet (“Commonwealth’s ESInet”, or Opt-in solution).

- Opt-out jurisdiction’s ESInet solution will be responsible to ensure integrated text, voice, and data interoperability with the state’s NG9-1-1 solution. This includes, but is not limited to, the following requirements:
 - Establishing redundant, diverse ESInet and Next Generation Core Services (NGCS) connectivity to the Commonwealth’s ESInet at locations defined by VITA.
 - Providing NENA standards based border control function (BCF) at the jurisdiction’s NG9-1-1 provider’s edge.
 - Ensuring NOC to NOC communications SOPs are established between the jurisdiction and the Commonwealth ESInet.
 - Lab-to-lab testing in non-live environment with current production software releases to verify interoperability.
 - Support Transitional paths to NG9-1-1 to allow transfer of calls to any neighboring jurisdiction (support legacy call transfer to an ESInet [via interworking IPSR² to i3³ protocols] and support inbound ESInet calls to a legacy PSAP [via interworking i3 to IPSR protocols]).
 - Support SIP interconnection with use of SIP call delivery and use of i3 protocols including but not limited to PIDF-LO, LoST, HELD, GET, SIP REFER, Subscribe/Notify messaging, and EIDD as defined by the Commonwealth’s NGCS provider’s specification.
 - Provide an ESInet solution inclusive of pricing for text-to-911 Text Control Center services. The Opt-out solution must provide the ability to transfer texts received initially at the first PSAP to any other Commonwealth PSAP, regardless of NG9-1-1 ESInet/NGCS services provider.

¹ ESInet (Emergency Services IP Network) – a managed IP network used for emergency services communications that can be shared by all agencies. In the context of this definition, the Next Generation Core Services (NGCS) that operate on the ESInet are included.

² IPSR replaces the functions of legacy selective routers by routing 9-1-1 calls via Internet Protocol (IP) to a PSAP using existing mechanisms (e.g., ANI, p-ANI, ESRK) and converts the calls to SIP signaling.

³ i3 is shorthand terminology for the ESInet and NGCS and systems that are in conformance with NENA-STA-010.