

NG9-1-1 Industry Collaboration Event 2 Planning Committee Charter

The Steering Committee for the NG9-1-1 Industry Collaboration Events (ICE) has approved commencement of planning for the second event. As with ICE 1, the planning and execution will be the responsibility of a Planning Committee. This document provides guidance to the Planning Committee as they begin their work.

Goals:

Plan and execute an event that

1. Attracts and encourages the widest possible participation of vendors that have products in the focus area.
2. Allows all participating vendors to test all valid architectures and configurations requested.
3. Deliver relevant feedback on standards to the appropriate NENA Tech Committee
4. Allow vendors to better understand the interoperability between their implementations and products developed by other vendors.
5. Execute a plan that allows for the gathering of data to be reported to the NENA Tech committees, SDOs, and, at a high level, to all interested parties.

ICE 2 Focus Areas:

This particular event will focus on elements that support the transition from the current E9-1-1 system to the NG9-1-1. Elements to be tested include but are not limited to

- Elements and interfaces defined in i2 and i2.5 architectures such as VDB & ERDB
- Elements and interfaces identified in the i3 architecture such as Legacy Network Gateways (LNG) and Legacy PSAP Gateways (LPG)
- Other interfaces defined by other SDOs including ATIS/ESIF, and IETF that are specific to the transition including the Request For Assistance Interface (RFAI)
- Elements that are not defined explicitly in existing documentation but whose purpose is to facilitate the transition including "IP Selective Routers"

Exhibit A details the first scenario the committee should plan for.

Exhibit B details the focus areas for ICE 2 that form the basis of additional scenarios

Other scenarios can and should be developed by the Planning Committee.

Planning Committee Participation:

Any vendor of product that can be used to facilitate the transition from E9-1-1 to NG9-1-1 are encouraged to actively participate on the Planning Committee. In addition, vendors of products that interface with these transitional elements are also encouraged to participate.

At this time, participation on the planning committee is limited to vendors. No distributors, users, or other industry stakeholders will be involved in the planning. If any of these stakeholders have comments they would like provide to the planning committee, they may do so by providing their comments to the secretary of the committee, Ray Paddock via email at rpaddock@nena.org.

Committee Structure:

The committee will have a Chairperson selected from the steering Committee. Bill Mertka, who chaired the planning committee for ICE 1 has agreed to Chair the ICE Planning Committee. The Planning Committee will also have a Vice-Chair. Bill will discuss the process for selecting a Vice-Chair on the first committee call. In addition, there will be a secretary that will provide support and continuity with ICE 1. The Chair will establish sub-committees to take on that actual work to be performed.

Decisions made by the Planning Committee will be by consensus. Any decisions that cannot be reached by consensus will be elevated to the Steering Committee

Due to the focus of this event, there will be a special liaison established with the NENA Transition Planning Committee. The specifics of this liaison will be

Committee Meetings:

The Planning Committee will do its work via regularly scheduled conference calls. Face to face meeting may be scheduled that coincide with other industry gatherings that are attended by planning committee members. Sub-committee meetings will also be held via regularly scheduled conference calls.

The Planning committee calls will likely be scheduled for one hour and will focus on high level planning topics. The sub-committee calls will be scheduled for a duration that is appropriate for the task being considered and will focus on specific tactical tasks assigned by the Planning committee. Vendors can choose who their representatives are for both the Planning Committee and the sub-committees however, it is suggested that vendors choose representatives that are appropriate for each.

Data Gathering and Reporting Committee:

In addition to the Planning Committee, the Steering Committee also formed the Data Gathering and Reporting Committee. It is responsible for gathering data at the event and reporting it to key stakeholder groups including the NENA Tech committees, other Standards Development Organizations, and others. The two committees must work in close collaboration to ensure that both are successful in achieving their goals.

Planning Committee Deliverables:

On the path to meeting its overall goals as stated previously, the Steering Committee requests that the Planning Committee accomplish the following tasks as early in the planning cycle as possible:

1. A high level definition of what the event will test. This should include a list of vendor elements and interfaces that will be exercised.

2. A target timeline for the planning and execution of the event. Of particular importance is the selection of an event date that is acceptable to the participating vendors and that does not conflict with another important industry event. It is desirable to hold the event as soon as possible.
3. An inventory of the resources and/or environment required to support the testing. The Planning Committee will take on the challenge of sourcing the resources needed; however, the Steering Committee will actively support this effort.

Additional Guidance:

Not all companies participating in ICE 2 participated in ICE 1. The Planning Committee should accommodate the learning curve these new companies will go through. On the other hand, the new participants may have ideas related to improving the overall process. These new ideas should be welcomed.

It should be assumed that unless otherwise addressed in this document all other aspects of the planning and execution of ICE 1 will carry forward to ICE 2. For example, there will be no NDAs. A participant Code of Conduct will be used.

Finally, this event is being planned within the overall NG9-1-1 project and the ICE Program. The work of this group should not conflict with either of these.

Exhibit A

ICE2 Initial Planning Concept

ICE2 will test Transitional Elements that will be used to support migration from E9-1-1 to NG9-1-1.

Scenario 1 will offer the opportunity to test components that will support initial transition of wireline (or wireless) TDM calls. Subsequent scenarios will test alternative architectures that could facilitate other transition strategies.

Scenario 1 calls for a hybrid system configuration to include the following E9-1-1 and NG9-1-1 functional elements, in order for wireline or wireless 9-1-1 calls to be answered at an i3 PSAP:

1. TRANSITIONAL ELEMENTS TO BE TESTED:

Legacy Network Gateway (LNG)

Wireline (and circuit switched wireless) originating networks will continue to exist for the foreseeable future. Therefore, during transition as well at the end state of an i3 compliant NG9-1-1 system a Legacy Network Gateway is required so that i3 PSAPs may receive emergency calls originating from legacy networks.

The i3 compliant LNG functional element is comprised of three functional components, briefly summarized below:

1. (TDM to SIP) Protocol Interworking Function (PIF) to convert the incoming Multi-Frequency (MF) or Signaling System Number 7 (SS7) signaling to the IP-based signaling supported by the ESInet;
2. NG9-1-1 specific Interworking Function (NIF) to process the incoming call signaling, which includes identification of the 10-digit key (i.e., calling number/ANI, ESRK, cell site/sector) that will be used as input for location acquisition. Having received the location information from the Location Interworking Function (LIF), generate a routing request to an ECRF to identify the target ESRP and route to the selected ESRP, including the ability to select a default route if necessary; and
3. Location Interworking Function (LIF) to utilize the appropriate information from the incoming signaling (i.e. calling number/ANI, ESRK, cell site/sector) to acquire location information. The LIF initiates requests for location information to a Location Information Server (LIS), based on the information provided to it by the NIF.

It is anticipated that wireline telecommunications service providers (TSPs) may not initially deploy LIS, if they are deployed at all. Scenario 1 calls for a LNG adapted to provide a transitional LIF that utilizes the Automatic Location Identification (ALI) host for acquisition of location information. The transitional LIF will be replaced by the i3 LIF if and when wireline TSPs deploy LIS.

Border Control Function (BCF)

The E9-1-1 system is a closed system and relatively secure, that may be leveraged in the initial build-out of the NG9-1-1 System if BCFs may be deployed partially. The i3 compliant BCF includes Border Firewalls and Session Border Control (SBC). Scenario 1 calls for BCFs to be adapted so that Border Firewalls may be deployed first, followed by the SBC at a later phase.

Dual-mode IP capable PSAP CPE

PSAP CPE with dual-mode capabilities that can toggle between the legacy circuit switched environment and the next generation environment. CPE must be able to receive process and display TDM calls as well as “native” SIP calls. This means the transitional CPE must have the capability to accept calls from the ESInet, transfer the call to another PSAP served by the ESInet, as well as continue to accept calls from the SR, and transfer the call to another PSAP via the SR.

Additionally, the CPE mapping application must be able to identify and display for the call taker, the fire, police and emergency medical service response agencies based on the caller’s location delivered in the PIDF-LO, mitigating the loss of ESN information.

2. I3 COMPONENTS TO BE TESTED

Emergency Service Routing Proxy (ESRP)

i3 compliant ESRP, without the PRF.

Emergency Call Routing Function (ECRF)

i3 compliant ECRF.

3. LEGACY SUPPORT REQUIRED

E9-1-1 Selective Router (SR)

The E9-1-1 Selective Router is utilized to aggregate and transport wireline (and circuit switched wireless) calls to the ESInet via the LNG. The LNG must be assigned ESN(s) to enable the SR to selectively route calls to the LNG, as if it were a PSAP.

ALI Database, MSAG and ALI Data

TDM Initiated Calls

4. TESTING TO BE ACCOMPLISHED

Call Completion, Transfer and Conferencing

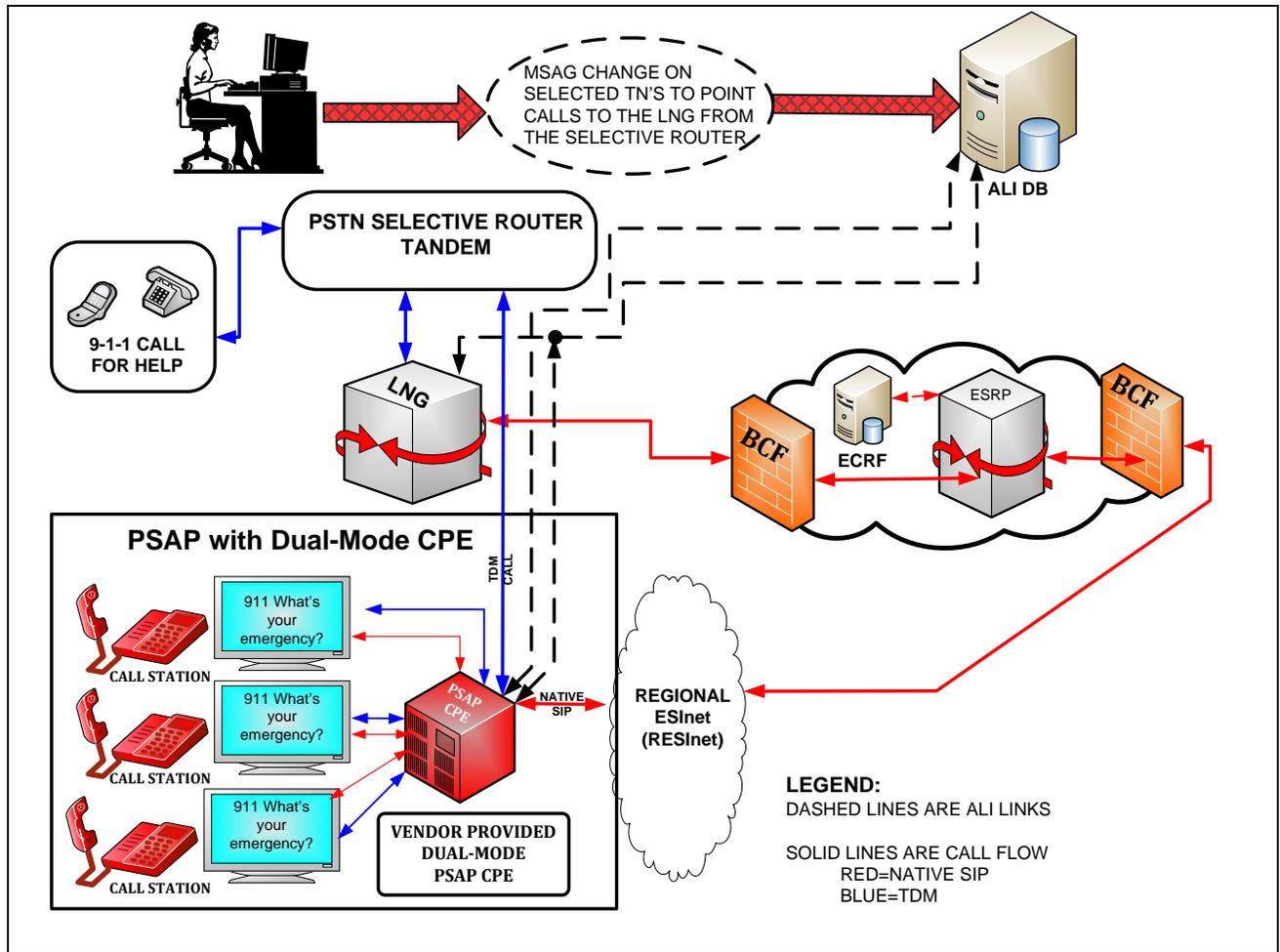


Figure 1

Figure 1 above depicts the hybrid system configuration of Scenario 1.

Exhibit B Scope of Call Handling Tests for Two Scenarios

Testing Key

XXXX	Required signaling/protocol - not tested
XXXX	Required signaling/protocol - tested
XXXX	Required functional group - tested
XXXX	Required function - tested
XXXX	Required functional group - not tested

Red lines w/arrows = call flow
 Black lines w/arrows = protocol Interaction
 Black lines no arrows = Interconnection (not tested)

**** Refer to NENA 08-002 and the Draft NENA i3 stage 3 document for explanation of terms and abbreviations

