

## Comcast is pleased to share some exciting new developments with regard to our E9-1-1 services

In the coming months, Comcast will update its current E9-1-1 services by transitioning to a NENA i2 E9-1-1 solution. Comcast will continue to use its highly reliable E9-1-1 call delivery network while introducing a scalable, flexible and equally reliable technology that can support an evolution in public safety technology, including Next Generation 9-1-1 (NG9-1-1) efforts.

The National Emergency Number Association (NENA) developed i2 to outline a standard architecture that could support the interconnection of VoIP with the existing Emergency Services Network infrastructure. The NENA i2 standard is a first step in the Public Safety evolutionary roadmap for migration into NENA i3 standards and wider scale Next-Generation 9-1-1 (NG9-1-1) implementation efforts and initiatives. Comcast intends to be at the forefront of NG9-1-1 efforts to ensure the most reliable, robust and flexible 9-1-1 solutions for its customers; beginning with the implementation of NENA i2.

The changes will result in a highly reliable emergency call routing capability embedded in Comcast's hosted IP-based network, supported by Telecommunication System's (TCS) national VoIP Positioning Center (VPC) services. Comcast will utilize TCS' geographically diverse and redundant VPC services for PSAP routing information and dynamic provisioning into Automatic Location Information (ALI) for Public Safety Answering Point (PSAP) bidding.

### Functionality that will not be affected or modified by this transition includes:

- The use of Comcast facilities for call delivery into the 9-1-1 network
- The use of our advanced broadband network and not the public Internet to transmit Comcast Digital Voice calls
- Addressing and error resolution services provided by Comcast's 9-1-1 Address Operations Group within the National Customer Activation and Repair (NCAR) Group
- Support by Comcast's National Network Operations Center (NOC) in conjunction with the Legal Response Center and the Network Surveillance Group for emergency address lookup, call disconnects and call re-routing requests by Law Enforcement
- The ability to support PSAP ESN routing preferences
- Network diversity and use of PSAP's designated 10-digit 24x7 emergency routing numbers for back up service when the selective router is unavailable

### Functionality that will be enhanced as part of this transition includes:

- The ability to provision customer location information into a VPC in near real-time significantly increasing its availability for emergency calls
- Re-verification of MSAG address' validity at time of call
- The ability to deliver civic valid location information to the PSAP (if the PSAP desires) when MSAG validation is not possible
- Emergency call routing based on caller's geo-coded location rather than telephone number.

### E9-1-1 OPERATIONS AND SUPPORT

#### Emergency Address Look Up, Call Disconnect & Call Rerouting Request by Law Enforcement

Comcast Legal Response Center 24x7  
Toll Free Emergency Number: (800) 839-6707

#### Network Outage and Call Failure Reporting

Comcast National NOC Surveillance  
24x7 Number: (800) 777-9824

E-mail Notification:  
ThirdParty\_CarrierOutageNotifications  
@cable.comcast.com

#### Non-Emergency Contacts

Non-Emergency ALI Discrepancy Reporting, NRF's, Misroutes

By E-mail: [E911\\_support@cable.comcast.com](mailto:E911_support@cable.comcast.com)

By Fax: (720) 267-1026

By Phone: (800) 961-5566

#### Excessive Calls, Service Affecting Maintenance, and PSAP Information Changes

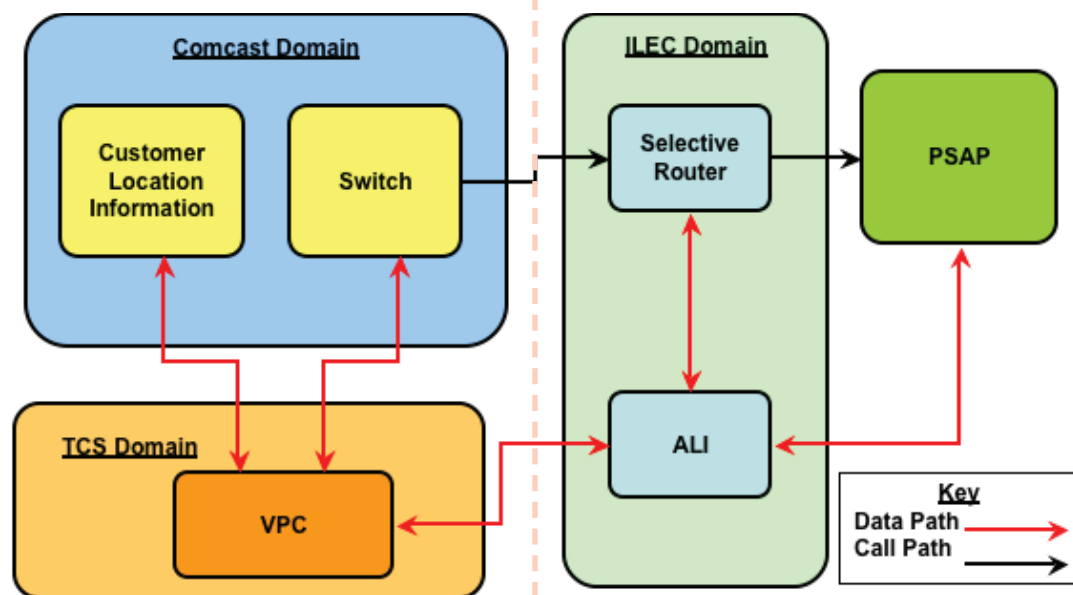
Comcast National NOC  
Surveillance Number: (800) 777-9824

# COMCAST and NENA i2



## Transition Overview

- Internal Coordination of NENA i2 transition**  
 Comcast and TCS will perform internal verification of PSAP dynamic routing capabilities and review of PSAP defined parameters (e.g. ESQK, ESN).
- Outreach Efforts**  
 Comcast will reach out to applicable 9-1-1 State, Local and Industry leadership contacts. Testing considerations and applicable PSAP parameters will be gathered.
- Implementation Phase**  
 After completing successful lab and inter-operability testing with TCS, Comcast will move forward with PSAP test scheduling. Comcast will conduct a phased implementation across our footprint.
- Closeout Process**  
 After completing successful PSAP testing Comcast will notify and close out the test activities with the 9-1-1 Authority/PSAP.



### Overview of i2 Call Flow

- Once a subscriber dials 9-1-1 to request emergency assistance, Comcast sends an INVITE to TCS with the subscriber (URI) to request Emergency Services Routing Number (ESRN) and Emergency Services Query Key (ESQK) information
- TCS queries internal systems and databases to confirm the subscriber's information and determine appropriate routing instructions
- TCS returns the appropriate ESRN and ESQK to Comcast to allow the Emergency Services Gateway (ESGW) switch to select the designated selective router
- The selective router uses the ESQK to determine the appropriate PSAP for the call
- The PSAP uses the ESQK to query the ALI database for a location record
- The ALI retrieves shell record instructing to retrieve staged record stored at the VPC
- The VPC retrieves the staged record and sends the subscribers address and callback information back to the PSAP through the ALI

## FAQ's

### Will the current NENA Company ID continue to display on Comcast 9-1-1 calls?

Yes. The NENA Company ID currently in use will continue to display on 9-1-1 calls after the transition.

### Will you still be able to support ESN PSAP preferences?

Yes. Comcast will continue to work with PSAP's and TCS to support desired ESN routing.

### Will the Comcast caller's address continue to be MSAG valid?

Yes. Comcast user addresses will continue to be MSAG validated and the MSAG valid address will be displayed at the PSAP.

### What class of service will be displayed?

The class of service of "VoIP" will be displayed.

### Will Comcast continue to remit 9-1-1 fees?

Yes. Comcast will continue to collect and remit 911 fees, just as they have since the inception of Comcast Digital Voice.

### Will anything change for the dispatcher at the PSAP? What new training might be necessary?

In addition to the usual caller information the dispatcher may now see a pANI (routing number) that is typical with dynamic ALI steering solutions according to PSAP display capabilities. If your PSAP is already supporting other service providers that use a dynamic ALI steering solution no new training should be required.

### Will any testing be necessary?

Yes. Comcast will coordinate testing with your PSAP and TCS in accordance with the appropriate protocols and procedures. Testing should be nominal per PSAP/9-1-1 Authority.

### Who can I contact if I have additional questions?

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