

## Emerging Technology Forum

# SMS-9-1-1: The Debate has Ended – Rollout Underway

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# Texting to 9-1-1 is Here!

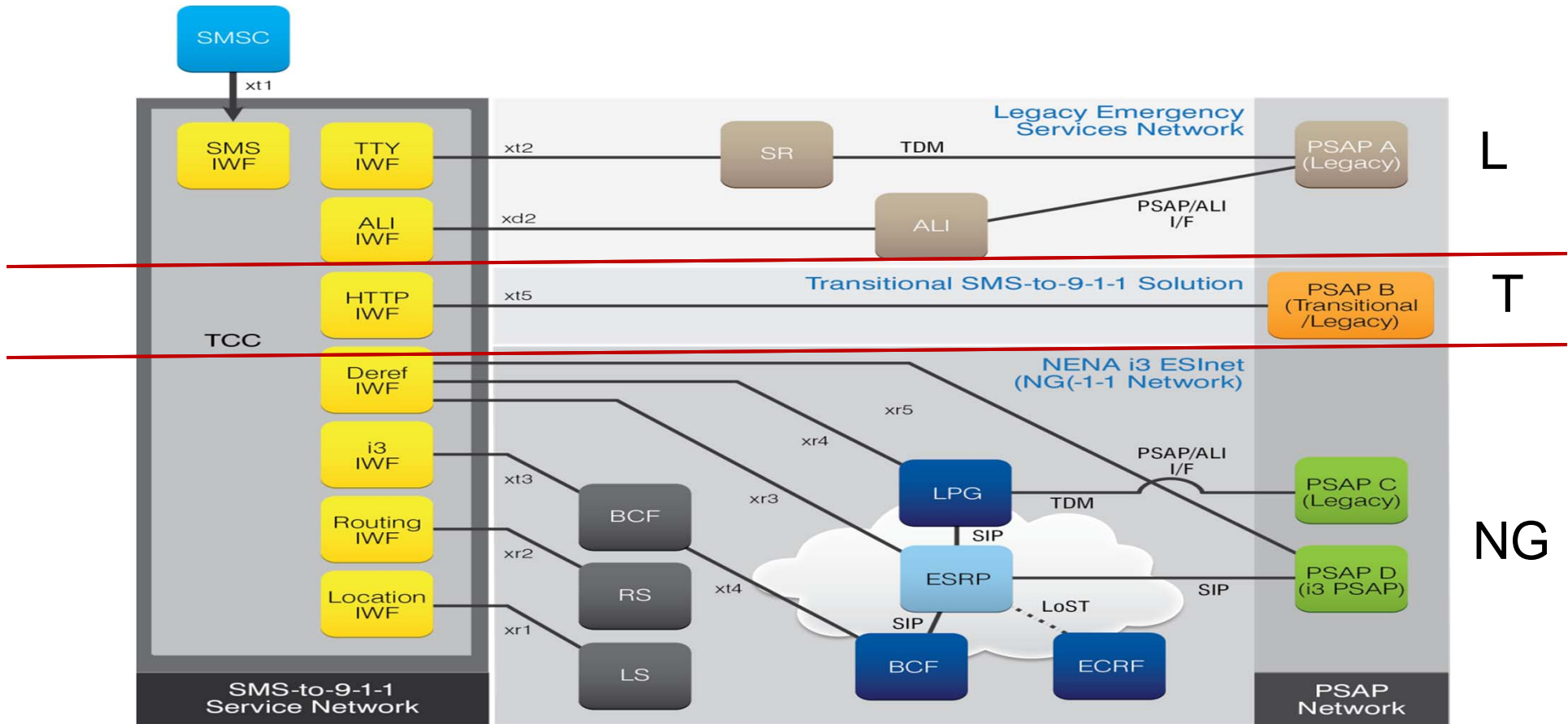
- Agenda
  - Standards-based Interconnection Options
  - PSAP Readiness
  - Considerations
  - Current Regulatory Status
  - Looking Forward
  - Summary

# PSAP Standard Solutions

1. TTY for legacy support
2. HTTPS (web portal) for Transitional - pre i3 support
3. i3 SIP interface for full NG9-1-1 support



# Standard Architecture



# Legacy PSAP Option

- Benefits
  - TTY option to use existing voice call paths
  - Works for PSAPs that want to use existing CPE
- Challenges
  - Additional texting load may require additional trunking
  - Session control consideration
  - TTY is half duplex



# Transitional PSAP Option

- **Benefits**

- Easy to deploy – easy training
- Can be a single screen – intuitive interface
- Feature rich user interface and Reporting



- **Challenges**

- Internet connectivity can pose SLA and security constraints
- Additional screen can add to screen real estate

File Edit View History Bookmarks Tools Help

GEM911™ - Geo-spatial Emergency Messaging... +

Back Forward Reload Stop Downloads TCS\_GEM\_911 Google

**TCS GEM911™** Help Sign Out ( Rod Robinson )

**Unassigned Queue**

1-425-555-4300 (2) 5 min(s)

1-410-555-4892 (1) 5 min(s)

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**My Active Sessions**

▶ 1-949-555-6381 Rod Robinson

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**Other Active Sessions**

1-555-276-6622 Firdaus Aryana

**End Session** Font Size: + -

**Message Transcript: 1-949-555-6381**

Someone broke into my house. I heard a window break then whispering downstairs  
1-949-555-6381 Thu Mar 22 2012 10:58:21 PDT

✓ This is 911. Can you confirm your location as being near Western Ave and Vine?  
Thu Mar 22 2012 10:59:32 PDT Rod Robinson

Yes. The Vine street apartments unit 208  
1-949-555-6381 Thu Mar 22 2012 11:00:37 PDT

✓ Stay calm. An officer is nearby. Help is on the way.  
Thu Mar 22 2012 11:01:41 PDT Rod Robinson

Select an immediate response

Enter text to be sent.

**Send Message** **Clear** **Transfer**

characters used = 0 | remaining = 254 PSAP: XYZ County

Located At: Mar 22 10:58:27 PDT  
Latitude: +47.61462  
Longitude: -122.35028  
Hor Uncertainty: 443  
Position Source: 132  
Status: ✓ Location Found

**Refresh Location**

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# NG9-1-1 (i3) PSAP Option

- **Benefits**
  - Direct seamless integration into i3 capable CPE
  - No additional screens to monitor or manage
  - Future scalability
- **Challenges**
  - PSAP can incur additional CPE costs
  - Need to ensure that existing logging & CAD systems can capture text messaging



# What it means for...

- The PSAP
  - Decide which interface is right for you.
- The Deaf, Hard of Hearing and Speech Impaired (DHHSI) community
  - Direct Access from their existing wireless device
- The Public
  - Some situations are best handled silently.

# PSAP Considerations

- Experience breeds confidence and dispels fear
  - PSAP text taker confidence benefits from pre-production training and practice
  - May be another application screen to monitor
- Implementation Strategy
  - Early training, PSAP directed outreach

# Regulatory & Standards

- Recent Standards Activities
  - NENA (73-501), 3GPP MMES, ATIS/TIA JSTD-110
- Current Regulatory Status:
  - Carrier-NENA-APCO agreement
    - Top four carriers, APCO and NENA collaborated (Dec. 2012)
    - This industry agreement sets recommendations

# Regulatory & Standards

- FCC Further Notice of Proposed Rule Making (FNPRM)
  - Builds on Carrier-NENA-APCO Agreement
  - Bounce back message June 2013
  - General Availability May 2014

# Location Considerations

- Voice 9-1-1 and SMS 9-1-1 use different location systems
- For carriers that implement a commercial *User Plane* location infrastructure, a client application may be required for precise location
- For carriers that implement a commercial *Control Plane* location infrastructure, a client application is not required

# Current Text to 9-1-1 Statistics



50,652 public  
attempts to text 911  
10/01/12 to  
06/01/13 on one  
carrier.  
**Public demand is  
there!**

Reference: TCS national 911 report  
based on one carrier, 12/26/12

# The Next Two Years

- FCC Ruling by mid-late 2013
- Expect top four carriers to be either launched or trialing by 4<sup>th</sup> QTR 2013
- Expect the COGs/states and regions to start evaluating and deploy one of three interface choices by end of 2013
- Majority of Smaller PSAPs start deploying service by mid 2014

# Summary

- PSAP Options and Considerations
- Regulatory/Standards
- Next Steps
- Text to 9-1-1 is in production now!
  - York County, VA (GEM9-1-1)
  - NCTCOG (GEM9-1-1)
  - Maine (TTY)
  - Steuben County, NY (GEM9-1-1)
  - Frederick County, MD (GEM9-1-1)
  - More on the way...



# Q & A



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