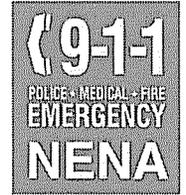


# National Emergency Number Association

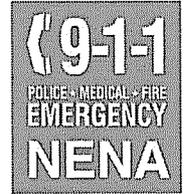


**Video Relay Service**

**IP Relay Service**

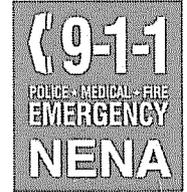
**MLTS**

**9-1-1 Access**



# VRS & IP Relay

- Emergency Call Issues
  - Speed
  - Priority
  - Delivery to right PSAP
  - Delivery via 7/24 10-digit numbers
  - No location data to PSAP
  
- Solution (proposed B1)
  - Speed - should cut at least 1 1/2 minutes in process
  - Priority - Uniformly assign queue priority for emergency calls
  - Delivery to right PSAP via existing 9-1-1 network with caller location data included



# Possible 9-1-1 Solutions

## Relay Center PSAP Using Current VoIP E9-1-1 Solutions

B1 With pre-registration of full caller address in VPC (requires user TN -) – preferred method

- Caller location to PSAP in ALI data

B2 User provides partial address (state, county, city, zip) during call

- Location provided by Relay to PSAP verbally

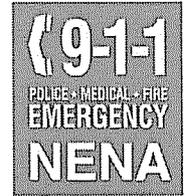
B3 User provides full address during call

- Caller location to PSAP in ALI data

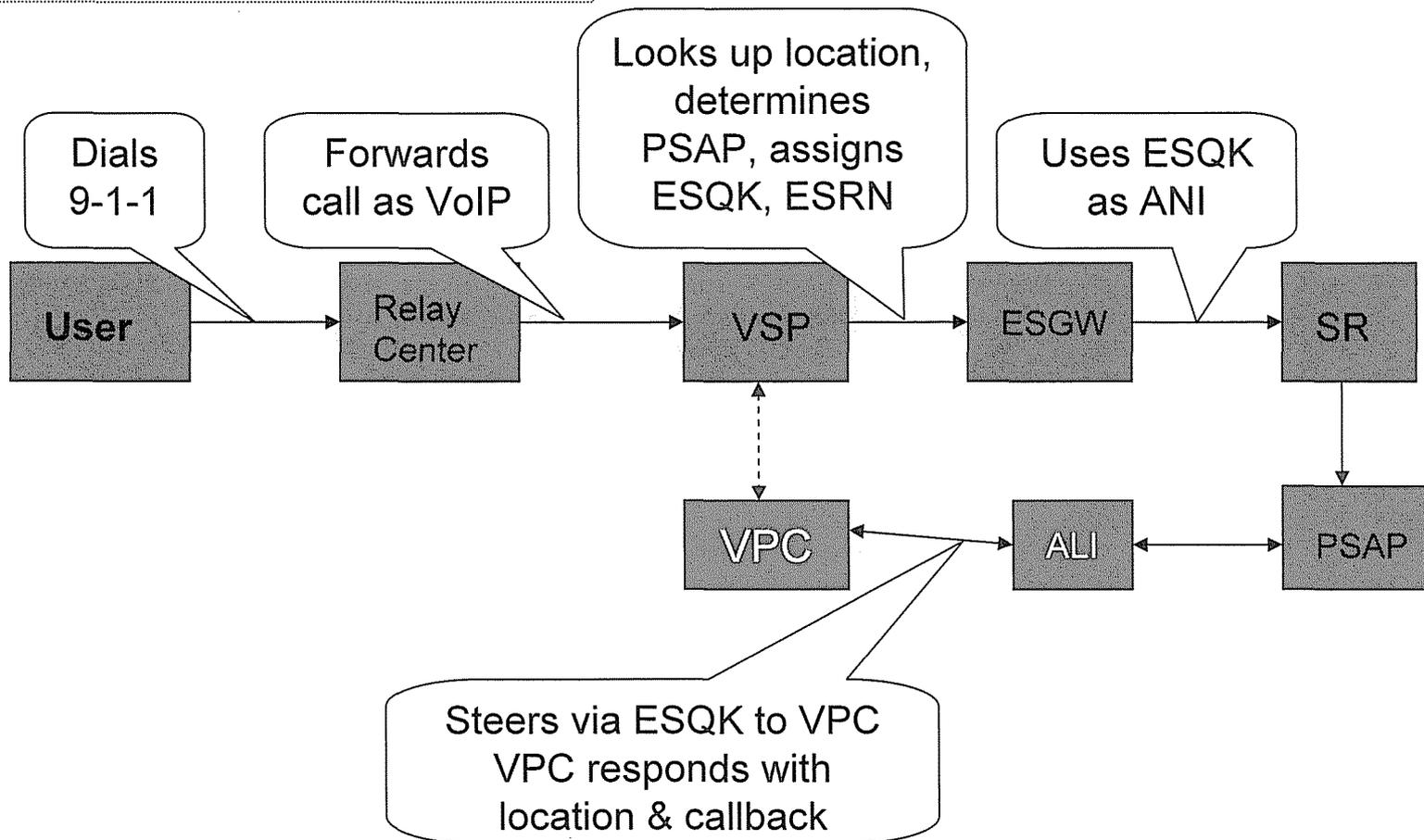
B2 and B3: no pre-registration, but requires special programming at VPC/MPC (time to do may be lengthy and may be costly)

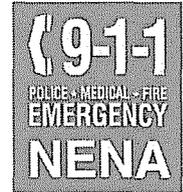
# Emergency Call Flow

## using VoIP E9-1-1 linkages



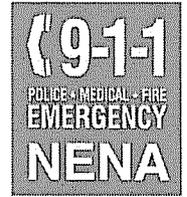
Relay Center pre-registers users with location, indexed by TN





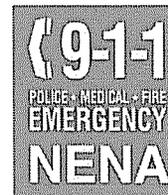
# B1 Advantages

- VRS Users have IDENTICAL 9-1-1 service as VoIP users (VRS is an IP service after all)
- Calls route automatically to correct PSAP, arrive on Selective Router, and have correct location & TN
- PSAP can call back via direct dial through interpreter
- Relay center can choose underlying carrier, VPC and ESGW providers
- No change to PSAP, SR, ALI, VPC, ESGW
- At least 1 ½ minutes cut off call prior to connection to PSAP call taker



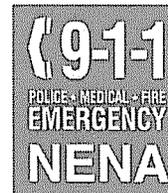
## B1 Issues

- Without extra work, 9-1-1 call will be processed with default VRS provider
- Requires software upgrades at VRS providers
- Requires payment for VPC and ESGW services (at same cost per sub as VoIP)



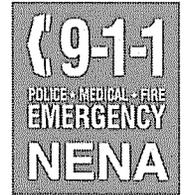
# Same Solution for IP Relay

- Exactly the same mechanisms can be used by IP Relay
- Assign TN to IP Relay user
- Register location at default IP Relay Center
- IP Relay Center contracts for VPC & ESGW services
- 9-1-1 calls route User – IP Relay – VPC – ESGW – SR – PSAP
- PSAP can call back IP Relay user via TN through interpreter



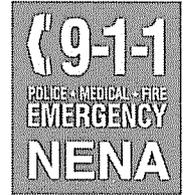
# FCC Actions to implement B1

- Order VRS (and IP Relay) providers to provide 9-1-1 service using same language as VoIP E9-1-1 Order
- Order VRS/IP-R providers to provide portable, dialable TNs to VRS/IP-R users
- Advise NANC to proceed with NANC415 (VRS/IP-R user URI in NPAC)
- Allow VRS/IP-R providers to get some/all upgrade development cost back from interstate fund
- Allow per month VPC/ESGW service to come from the fund (other option -assess VRS/IP-R users as do VoIP carriers – NENA does not support)
- Require VRS/IP-R providers to submit a plan to accomplish above – by 60 days after Orders



# FCC Actions - B1 (continued)

- VRS/IP-R providers complete their plan for E9-1-1 integration within 120 days after approval of their plans
- VRS providers give callers an 'emergency call' option to move in front of queue
- FCC should allow call back by VRS provider if call has been identified as emergency call, even if there is a disconnect by user before connection to VRS itself
- Allow interpreter to relay visual information to PSAP (e.g. presence of gun via vide link without direct caller communication)



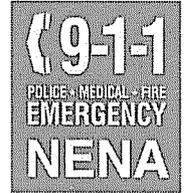
# FCC Actions - B1 (continued)

Full operation could be implemented by  
October 1, dependent on FCC actions

Can be done within 2007, enabling no  
further waivers

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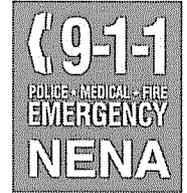
Note – same solution can work for ACN / Telematics



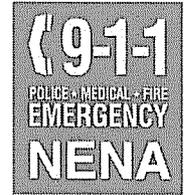
# MLTS E9-1-1 Proposal - Needs

- MLTS is last service type with minimal E9-1-1
- Millions of citizens work behind MLTS systems
- Only main location available with 9-1-1 calls  
(may be wrong site – may be not accurate  
enough to find caller in large facility quickly)
- Many instances over time of delays and deaths  
due to lack of E9-1-1 for MLTS in otherwise full  
E9-1-1 service areas

# MLTS E9-1-1 Proposal - Roadblocks



- Cost and complication
- Outboard solutions generally \$25,000 and higher primarily with older systems (IP based systems may be considerably less)
- Small business rejects cost impact
- States reluctant to legislate MLTS requirements for E9-1-1
- Only 12 states have taken any specific action – none recently
- Business and states much more likely to act if an economical solution is available



# MLTS E9-1-1 Proposal

## NENA Actions – FCC support:

Work with TIA 41.4 on current MLTS standards content (started)

If standards adequate, request implementation from the manufacturer community

If standards inadequate, update to needs, request implementation

## Proposed solution

- add originating station to ELIN conversion to station admin table
- add software logic to recognize 9-1-1 call and replace outbound TN with ELIN number
- should work with any type of outbound trunking to end office
- minimize cost to MLTS switch owner/operator