

## **Deployment of NEXT GENERATION 9-1-1 in Tennessee:**

### **Frequently Asked Questions (as of 9/1/11)**

#### ***General Questions:***

1. What will the short term impact of Next Generation 9-1-1 (NG9-1-1) have on our 9-1-1 center? (Testing, training, personnel onsite for installation, etc.)

Answer: In the immediate future, AT&T will conduct an onsite survey of your PSAP; AT&T personnel will be on-site to install and test routers; equipment vendors may have new instructions for transferring wireless calls.

2. What are NG9-1-1's benefits to our 9-1-1 center (What's in it for me? Features? Functionality, etc.??)

Answer: The ability to transfer any 9-1-1 call to any other PSAP in the state with additional information; alternate call routing for Disaster Recovery; elimination of local telco 9-1-1 charges; eventual ability to incorporate developing digital technologies (i.e., video streaming); no-cost access to wireline ALI database; and, additional redundancy.

3. Will we experience any outages during the transition to NG9-1-1? If so, for how long?

Answer: PSAPs should not experience any outages. The wireline network will continue to operate and act as a redundant route for wireless calls, at least until wireline calls are merged into the network.

4. Will this system allow for texting to 9-1-1?

Answer: When the carriers develop the capability to text to a three digit number and implement the reliability and text-delivery standards required for 9-1-1, NG9-1-1 will provide the infrastructure to allow 9-1-1 to receive texts.

5. Where will I be in the conversion timeframe?

Answer: We anticipate all PSAPs will be connected to the network by June 1, 2012.

6. Will we be able to message across this network to other PSAP's? (i.e., instant messaging)

Answer: The project team is exploring possible solutions for this application

7. With the TCS NOC (Network Operations Center) being the first call for NG9-1-1 related problems, will the ECDs' relationships with local telco be eliminated?

Answer: The TCS NOC should be the first call for NG9-1-1 related problems. ECDs will always maintain a relationship with the local telco for non-9-1-1 lines and services. ECDs may contact the local telco for wireline issues before wireline calls are transitioned to the NetTN network; however, ECDs can always call the TCS NOC to track wireline issues or when the source of the problem is unidentified.

8. Who will we report wireless 9-1-1 issues to?

Answer: The TECB will have a 24x7x 365 NOC to address all 9-1-1 issues.

9. What if we're in the process of moving during this deployment timeline? What is the process, who do we contact, how will that affect us, etc..?

Answer: The TECB and the NG9-1-1 team will assist you during your move. Please contact the TECB as soon as you know you are moving.

It is very important to keep the TCS survey information up to date as well. Please keep in mind that this information will be accessed when you call the NOC and is also essential during TERT deployments; it will create problems if it is out of date.

10. What do we do if the new NG9-1-1 system doesn't work right and how will we know?

Answer: The system will be fully tested prior to deployment.

11. Where do we send new VoIP/Wireless companies to if they are opening up service in our geographic areas?

Answer: New VoIP and Wireless companies should be referred to the TECB.

12. Will we have internet access across this new network/system?

Answer: NG9-1-1 will not provide access to the internet.

13. Will this affect our NCIC (Federal, State, local records) system?

Answer: NG9-1-1 will not affect your NCIC system.

14. Can my PSAP be a BETA site and/or one of the first sites to cut over to the TN ESI-Net?

Answer: Maybe. The geographic deployment plan has not been finalized.

15. How will the order of PSAP's be determined regarding cut over?

Answer: The geographic deployment plan has not been finalized.

16. Who will determine standard operating procedures (SOPs) for texting and video via 9-1-1?

Answer: We anticipate PSAPs will adopt SOPs for texting and video. NENA may also develop standards and best practices. The TECB may adopt SOPs for routing and processing texts and video.

17. How would a PSAP be notified for a network impairment?

Answer: Email will be the primary method of communication. In the event a system impairment renders data communication ineffective, TCS NOC technicians will make calls directly to the PSAPs affected for notifications.

18. Does it make sense to develop a template for disaster plans?

Answer: One does exist now, but TCS will work with the TECB to develop a new template that meets the current NG9-1-1 operational needs and provide new options for alternate routing of calls.

19. Who determines which PSAP gets dual connectivity to the NetTN network and the associated additional hardware required?

Answer: The High Availability (HA) solution provides additional redundancy that can be purchased by ECDs at their request. It may be recommended for very high traffic PSAPs. This will be addressed with on a case by case basis.

20. Should ECDs/PSAPs be planning for diverse/redundant "last mile" connections to the network?

Answer: Initially, CAMA trunks will provide redundancy. Once wirelines are integrated into NG9-1-1 and CAMA trunks are phased out, redundancy will be determined by the ECDs. If you want redundancy, it will be available.

21. Who can I contact to find out the cost, if any, to connect to the new network?

Answer: There is no cost for PSAPs to connect to the network.

22. Will stage 3 of this project (all 9-1-1 calls through network) result in the elimination of interaction with Intrado for MSAG updates?

Answer: Yes, in stage 3 when Tennessee moves to a statewide ALI database, that database will replace the ALI and MSAG services provided by existing ALI database providers. Your GIS system will now be a key factor in system updates. It will be imperative for your operational readiness to ensure these systems are always up to date with most current address information.

23. How long will I be in the transition phase?

Answer: Transitioning wireless calls will be completed by June 2012. The timetable for wireline has not been set. Wireless and VoIP must have been deployed successfully and tariffs must be adjusted prior to wireline deployment.

24. What calls will I be getting via the NG9-1-1 system after the cutover to transition phase?

Answer: Wireless and some VoIP.

25. How long will wireline trunks be in place after the initial cutover to NetTN?

Answer: At least until the latter part of 2013.

26. What calls will I be getting via NG system after the cutover to Final phase?

Answer: Wireless, VoIP and wireline.

27. When do you expect to be completely done?

Answer: NG9-1-1 will continue to evolve with technology and other developments.

28. Who do I call first when I have an issue?

Answer: The NG9-1-1 NOC will address issues and reroute calls if necessary. If the problem is due to PSAP equipment malfunction you will want to contact your vendor; however you should still contact the NG9-1-1 NOC to reroute calls until repairs are complete.

29. Where does PSAP monitoring stop, and what if a PSAP already has vendor monitoring?

Answer: NetTN will monitor 9-1-1 traffic to the NetTN PSAP Edge router. At the ECDs' request, TCS can provide PSAP monitoring. If you request PSAP monitoring, TCS can work with your CPE vendor to enable monitoring beyond the NetTN Edge router. TCS and NetTN monitoring comes at no cost to the ECD/PSAP.

30. Will some dispatchers get left behind, from a competence standpoint, based on the increasing knowledge and training required?

Answer: The TECB provides training funds to ensure that doesn't happen. Initially, dispatchers will see minimal operational changes. Further training may be necessary as texting, video streaming, ACN, and other technology are integrated into NG9-1-1.

31. Is automatic crash notification (ACN) being delivered to any PSAPs at this point?

Answer: Not in Tennessee. As far as we know ACN has only been delivered in some test cases around the country.

32. Is access to the PSAP profile data through the NetTN system or via the internet?

Answer: There will be secure rules based access to the data, but it will be accessed via the PSAP's regular internet connection, not over the NG9-1-1 part of the NetTN network.

33. Who can execute the User Agreement?

Answer: Both the chairman and the director will be required to execute the User Agreement.

***Equipment Related:***

34. Will we be required to have our vendors (9-1-1, Radio, Recording) onsite during cutover to assist?

Answer: You will need your 9-1-1 controller vendor and possibly your logging recorder vendor available during the change-over to the IP circuit.

35. Will there be any impact to our recording capabilities?

Answer: Not if you do recording at the workstation. If you record at the trunk demarcation point, changes may be needed.

36. Will this system interface with our current 9-1-1 controller without changes to our equipment?

Answer: Yes. Ideally, your 9-1-1 controller will have been upgraded to accommodate an IP connection to the NG9-1-1 network, however, IP to analog converters will be available for those systems that require analog connectivity.

37. When do we need to buy our NG capable controller?

Answer: As soon as feasible, however IP to analog conversion will be available for those systems not converted by June 2012. It would be desirable to have the new controller by early 2013 as we transition to the next stage of NG9-1-1 in Tennessee. It is recommended that ECDs planning to move to a new PSAP during deployment plan their purchases of NG9-1-1 equipment so the new PSAP can be outfitted with the new equipment rather than moving old equipment to the new PSAP and then replacing it.

38. Who pays for equipment to bring IP to the PSAP?

Answer: The TECB covers all the costs associated with network connectivity to the PSAP and provides funding for IP capable controllers. Depending on the circumstances, ECDs desiring redundancy greater than the connectivity provided by the TECB may have to cover the costs of it.

39. Will NG9-1-1 affect our service contracts with our existing CPE Providers?

Answer: It depends on your particular provider/service contract.

40. Is there specific equipment that has to be purchased to integrate directly into network without converting from analog trunks?

Answer: TECB will install IP to analog conversion equipment if the PSAP controller is not IP capable.

41. What type of floor space requirements are required of our PSAP? (Backroom floor space, HVAC, electrical, access security, etc..)

Answer: These requirements will be determined during the on-site survey process. Shelf space for a router will be required in all PSAPs.

42. How will this interface with our CAD/Mapping systems and will it require reconfiguration of them?

Answer: We encourage you to contact your CAD/Mapping vendors regarding this upgrade to ensure they are aware of the plan to move to NetTN. During the PSAP deployment testing, time for CAD, etc. will be included.

43. Has this been tested with our particular 9-1-1 controller system? Are we sure it will work?

Answer: AT&T has tested various systems and all meet known NENA i3 standards. We are in the process of developing a standard to provide to vendors to ensure compatibility with the network.

44. I'm looking to upgrade my equipment to the latest IP-ready system. Will we be required to test with you all during installation/implementation?

Answer: We will test all systems prior to implementation. AT&T has tested various systems and all meet known i3 standards. We are developing a standard to provide to vendors to ensure compatibility with the network.

45. Will my regular techs be working on my equipment?

Answer: Yes.

46. What is the difference between IP capable and i3 capable?

Answer: IP capable means you have a digital connection to the IP network and can receive additional data over the connection beyond what

is available on analog 9-1-1 trunks. i3 capable means your IP connection meets the new NENA i3 NG-9-1-1 standard.

47. How does this change my relationship with my vendors?

Answer: NG9-1-1 will only affect your relationship with your 9-1-1 service provider/telephone company. NG9-1-1 will not affect your relationship with your equipment vendors.

48. Will the network eventually support radio dispatch in order to support a complete failover dispatch function if a PSAP has to evacuate?

Answer: Supporting radio dispatch is not planned at this time.

***GIS, Mapping, and Address Related:***

49. Will the ANI and ALI format or information change?

Answer: We do not anticipate a change initially to ANI and ALI format except in some cases where the PSAP utilizes an on-site stand-alone database. This applies to both wireless and some VoIP calls. Wireline and some VoIP calls will continue to be received over the analog CAMA 9-1-1 trunks with no change.

50. What do ECDs do if they can't get concurrence within their county or between counties on jurisdictional boundaries resulting in gaps?

Answer: The TECB staff will assist districts in resolving ESN boundary issues. There can be no gaps or overlaps of ESN boundaries.

51. Will GIS updates from OIR/GIS be automatic at the ECD's system?

Answer: Yes, OIR/GIS will routinely update local systems. The frequency of this process has not been determined to-date; however, the team recognizes there is a real need for the capability to load frequent changes into the master system. OIR/GIS can work with you to develop load scripts to get your GIS data into the state system.

52. Will OIR/GIS make their own adjustments to local GIS data?

Answer: All changes made by OIR/GIS will be based on input received from the ECD.

53. Who determines ESN boundaries?

Answer: ECDs determine their own ESN boundaries. The TECB staff will assist districts in resolving ESN boundary issues.

54. What about potential conflicts in point data like 123 S. Main and 123 N. Main?

Answer: As long as one of the address attribution fields (address number, street prefix direction, street prefix type, name, street type, street suffix direction or zone (ESN or ZIP)) is different, the software will see 123 S. Main and 123 N. Main as different address points and there will not be a conflict.

55. Can an ECD make point changes in the state GIS data directly, or simply request the change?

Answer: ECDs will be able to make point changes; the methodology for making these changes, directly or indirectly, is still under development.

56. The TIPS standard has resulted in more fields of data. Do they need to be completed by the ECD?

Answer: Not all fields may be utilized by all ECDs, however certain fields are required under TECB Policy 20. Contact OIR GIS directly to discuss any questions on this issue.

57. How will GIS incentive funding forms be sent to the ECDs?

Answer: By email.

58. Is GIS data going to be released by OIR to commercial vendors?

Answer: Requests by commercial vendors for individual county GIS datasets will be referred by OIR to the ECD. GIS data is subject to the Open Records Act; however Tenn. Code Ann. §§ 10-7-506(c)(1)-(3) prescribes allowable charges for ECD generated GIS data. Upon request, ECDs will have access to all GIS data to enhance their response capabilities.

**Call Processing and Routing Related:**

60. Will our alternate / contingency routing change?

Answer: Not unless you initiate a change to your contingency plan.

61. Will this enhancement allow us to transfer our calls to alternate PSAP's and provide ANI/ALI?

Answer: Yes, that is one of the benefits of NG9-1-1, assuming the transfer points have an NG9-1-1 capable controller, or to a PSAP that is connected with an IP to analog converter

62. Can 9-1-1 calls be transferred with ALI anywhere in the state including some out of state PSAPs?

Answer: Wireless 9-1-1 calls and VoIP 9-1-1 calls that use a VoIP Positioning Center (VPC), otherwise known as nomadic calls, will be transferrable with ALI to any PSAP in Tennessee as well as those served by AT&T's tandems in Owensboro, KY and Jackson, MS.

63. How long before all traffic (Wireless, Landline, VoIP) will be 100% delivered across this network?

Answer: Wireless and nomadic VoIP will be delivered across the network by June 1, 2012. The timetable for wireline has not been set, but wireless and VoIP must be deployed successfully prior to that implementation process. We anticipate that to be at least late 2013. Tariffs must also be adjusted prior to wireline deployment.

64. Does implementation of the new NG9-1-1 network mean our 9-1-1 calls and traffic will be routed across the internet?

Answer: NG9-1-1 will be routed across the private and secure NetTN network. NCIC/TBI, e-Health, and other systems run across this network; however a dedicated portion of the network is allocated to 9-1-1.

65. How will the 9-1-1 calls be routed if our NetTN WAN router/switch fails, the Audiocodes gateway fails or a circuit issue occurs at the PSAP location?

Answer: Calls will be automatically rerouted based on your contingency plan.

66. Will my PSAP be notified if calls are re-routed to us?

Answer: Yes

67. Will the Selective Router TDM path remain indefinitely? How soon after the network is installed will the current 9-1-1 analog trunks be removed and our monthly network charges from AT&T go away?

Answer: The Selective Router TDM path will remain until wireline calls are switched over to the network.

68. How does the NetTN network provide failover/redundancy for managed/routed VoIP calls?

Answer: Every carrier will be required to deliver all 9-1-1 calls to two of four separate aggregation points on the network. Two separate Microdata routing systems will deliver calls to the PSAPs. The NetTN network is completely redundant from the aggregation points to the nodes serving the PSAPs.

69. How does the system provide failover/redundancy for managed/routed VoIP calls?

Answer: Two Microdata routing systems will provide redundancy of call delivery.

70. I've heard the new network will allow for automatic failover/disaster recovery so if our PSAP goes down our 9-1-1 calls can be answered by another PSAP. How will that be determined? Will we need legal operational agreements enacted between ECD's with SOP's? Will TCS reroute the calls?

Answer: The network will provide automatic failover/disaster recovery pursuant to your contingency plan. An MOU with your contingency PSAP is suggested. TCS and the NetTN team will reroute the calls.

71. Would a multi-county disaster cause an overload of the network?

Answer: No, the network has been designed for such an abnormal load.

72. Could a PSAP be isolated from the network if a malicious virus was originating via that connection?

Answer: Yes; however, calls would be re-routed based on the ECD/PSAP alternate routing plans in place for other failures. PSAPs must

adhere to the NG9-1-1 User Agreement which requires compliance with security measures to mitigate such threats.

73. If a call needs to be rerouted over CAMA trunks, how will the ALI be retrieved at the receiving PSAP?

Answer: PSAPs will continue to receive ALI from their service provider using existing ALI data links or from the existing local standalone ALI database. Ultimately, when Tennessee moves to a statewide ALI database, PSAPs will be migrated to the new ALI database and retrieve this data over NetTN ALI connections. Downloads of this data will be possible for those PSAPs desiring on-site data.

74. How will I transfer calls from an NG location to a Non-NG location? Vice Versa?

Answer: Calls will need to be transferred over 10 digit lines.

75. During the transition phase, how will overflow/alternate/backup routing be handled?

Answer: The network will provide automatic failover/disaster recovery pursuant to your contingency plan. Alternate rerouting can be established by contacting the NG9-1-1 NOC.

### **FAQ's for Service Providers (ILECs, CLECs, wireless carriers, and equipment vendors)**

76. When should wireless carriers start ordering circuits to the aggregation points?

Answer: TCS and ATT/NetTN are working on this part of the timeline right now. A notification letter has been issued to carriers. Brian Eaton with AT&T is managing the Stage 1 carrier transition to the aggregation points. Brian can be reached at 312-364-2002.

77. Who pays for additional connections and redundancy from the wireless carriers to the aggregation points?

Answer: The carriers will; however, the number of connections may be fewer than they are today in circumstances in which connections are currently required to multiple selective routers throughout the state. Carriers will be asked to provide connectivity to at least 2 of the 4 aggregation points for NG9-1-1.