



# NG9-1-1 Deployment FAQ

*This document is a compilation of the most frequently asked questions regarding NG9-1-1 deployment in the Commonwealth of Virginia. It will be updated periodically as more is learned or additional questions are added. Please make sure you have the most current version. Please don't hesitate to contact your regional coordinator with additional questions.*

## Funding

**Q:** What costs will the Board/VITA continue to pay and for how long?

**A:** The Board will not be approving the funding guidelines for NG9-1-1 until May 2018, but it is anticipated that they will include the costs directly associated to the transition to NG9-1-1 including any increase to the monthly recurring cost for a period of time. Initially, this duration was planned to be through the transition period, but feedback from several PSAPs that will be deployed late in the transition period has resulted in a reconsideration of that plan. The period will be defined in the funding guidelines to be approved by the Board and the resulting amount of funding will be included in each locality's migration proposal. As a result, each locality will know their monthly recurring cost before making their NG9-1-1 deployment decision and when that cost will become their responsibility.

**Q:** During the town hall, a figure of \$31 million was referenced as the cost for the special construction. Is that if the locality goes with the AT&T solution or not?

**A:** Special construction costs are those costs incurred to provide diverse/redundant IP connectivity between each PSAP and the AT&T ESInet to ensure 99.999% availability. As a result, the costs shown are based on the AT&T solution. However, any NG9-1-1 solution will require diverse/redundant connectivity so these costs should be comparable to other solutions.

**Q:** Who will pay for this migration?

**A:** The Board/VITA will cover transition costs and required equipment upgrades (subject to grant limits). The locality will be responsible for recurring costs after transition.

**Q:** Will this be on a reimbursement or direct pay basis for the transition?

**A:** It will depend on what the invoice is for and the request of the PSAP. The Board/VITA will likely offer an option for AT&T to be paid directly upon the request of the PSAP, or the locality can pay AT&T or other NG9-1-1 solution providers and seek reimbursement. For other costs, such as GIS data improvement by a vendor, the locality would seek reimbursement the same way it is done through the existing grant program.

**Q:** What are the costs, both for the transition and recurring after the transition, and when will we know those costs?

**A:** By June 30, a completed migration proposal will be provided to each locality that requests one. This proposal will identify all costs necessary for the transition to NG9-1-1. Even if a locality chooses a NG9-1-1 solution provider other than AT&T, a migration proposal will be completed at the time that provider is identified. Funding requests will be based on the migration proposal and will be considered at each Board meeting during the deployment period. Once approved, the locality will be able to execute the deployment based on that funding request. Material changes to the request will be considered at each Board meeting.

## GIS Details

**Q:** When will the next MSAG/ALI/GIS analysis be done?

**A:** The next MSAG/ALI/GIS analysis will be completed by VITA in May 2018. The results will be included in each locality's completed migration proposal.

**Q:** Will there be a PSAP boundary agreement that will need to be completed?

**A:** A PSAP boundary GIS layer will need to be compiled throughout the Commonwealth so that a 9-1-1 call from anywhere in the state will route to one and only one PSAP. Ultimately, the process for getting a consensus about boundaries is a local/regional responsibility. However, VITA is working on a best practice to assist with that process and will be facilitating the effort regionally.

**Q:** How will a locality's GIS data get to the ESInet?

**A:** Within the NG9-1-1 core services on the ESInet, there is a function called the "spatial interface" (SI), which is responsible for ingesting local GIS data for use in routing and other NG9-1-1 functions. The NG9-1-1 service provider, selected by the locality, will provide this workflow, usually as a combination of a web portal or desktop GIS toolset. Additional outreach will be provided regarding AT&T's solution in the coming months.

**Q:** How does the AT&T network use GIS to route calls?

**A:** At the simplest level, the AT&T solution geocodes an incoming caller's address to a point (either an address point or on the road centerline), then locates that on the PSAP boundary polygon layer to identify the responsible PSAP. If the location is provided as a longitude/latitude, that point is located directly on the PSAP boundary layer. However, if for some reason the local GIS data is not ready (readiness is determined by matching the existing E9-1-1 ALI records to the road centerline with the goal being a 98% match rate), then AT&T can implement a transitional step using the existing MSAG for routing. This workaround will only be transitional to get initial deployment. Funding will be provided to implement full geospatial routing.

**Q:** Is the GIS analysis methodology available?

**A:** VITA will provide the methodology and tools used for the MSAG/ALI/GIS analysis when they are finalized. The analysis being performed now will be different than the one performed two years ago. The primary difference is that the AT&T requirement for an address match is more exact than previously used. The results of the analysis will be distributed to each locality as part of the migration proposal.

**Q:** The GIS data will need to stay up-to-date. Will VITA assist with that?

**A:** As part of the migration proposal process, VITA will be discussing updating workflows and processes with each locality. If a need is identified for assistance in this area, funding may be available. Ultimately, it is a local responsibility to ensure that changes to the GIS data are timely and accurate.

**Q:** Should we choose AT&T; will everything be geospatially routed based on a map?

**A:** Full geospatial routing is the end goal. There may need to be a transitional step first depending on the timing of deployment and the amount of work needed on the GIS data.

## Local Decision

**Q:** We can't do [the transition] alone so how do we coordinate with everyone else on our selective router pair to accomplish this?

**A:** Regional meetings and discussions are a first place to start. The VITA ISP regional coordinator can assist in setting up any desired meetings. It also does not need to be all of the PSAPs served by a selective router pair that work together. Smaller groups of 5-10 PSAPs can work together effectively.

**Q:** Is each PSAP required to contract with AT&T or are other options available?

**A:** Each locality will choose their own NG9-1-1 solution provider. If they wish to deploy the AT&T solution, the Fairfax County contract is available. That contract requires any locality using it to execute a participation agreement with AT&T. Any locality not wishing to use this contract can conduct their own procurement or other appropriate process.

## Migration Proposal

**Q:** What questions do I ask my CHE provider?

**A:** The migration proposal will cover all the questions about your current equipment. We will work with your provider to make sure that everything is NG9-1-1 ready.

**Q:** Will the grant process follow the normal timeline?

**A:** It will generally follow the same timeline, however, some changes are currently being considered such as staggered application processing to speed approval. The process is still being developed as well as the application. The PSAP Grant Committee will be considering the process as part of the funding guidelines at their April 12 and 26 meetings, and the Board will approve the guidelines in May.

**Q:** When does the migration proposal process start?

**A:** The process will begin on April 9<sup>th</sup> and is expected to be completed by June 30.

**Q:** Can VITA ISP do the Migration Proposal based on the AT&T solution and costs even if a PSAP is participating in an RFP?

**A:** Yes, the VITA ISP regional coordinator will be contacting each PSAP to determine if they want the proposal to be completed.

## Network Details

**Q:** How long will E9-1-1 and NG9-1-1 run simultaneously?

**A:** The deployment will occur by selective router pair. As each region is completed, the legacy, E9-1-1 network will be decommissioned. The current schedule calls for all PSAPs on any one selective router pair to be transitioned in a six-month window. As a result, both networks will only run simultaneously for six months in each region. Total migration is scheduled for 36 months at which point the entire E9-1-1 network will be turned off.

**Q:** What route does a wireless call to 9-1-1 take in the ESInet?

**A:** Generally, the 9-1-1 call is delivered by the wireless carrier to an AT&T point of interface (POI). The call is then routed by AT&T to one of their aggregation points where it is converted to IP and enters the ESInet. The call then is sent to one of six cores, which determines the correct PSAP to handle the call and routes the call to that PSAP. This is the same regardless of the type of originating service provider (OSP), meaning wireless, wireline or VoIP. At some point, many OSPs will route calls to the ESInet as IP without the need for conversion, but initially, all are expected to enter through a POI.

**Q:** Why does my IT department need to be involved?

**A:** New IP connections into the PSAP may require local IT personnel to know that new routers or servers are coming in and are being placed in a building. Also, PSAPs need to keep their IT staff informed of any construction that might happen to provide redundancy and/or diversity.

**Q:** Since AT&T is first in, it looks like we are highly encouraged by the state to go with it.

**A:** The Deployment Plan approved by the Board recommends the use of the Fairfax County contract because it was a competitively awarded contract that is available for use by all localities in Virginia. VITA did not feel there was anything they would have done differently, but also lacks the resources to conduct another procurement. However, any locality may issue their own RFP, if they wish. Any other solution selected will need to be interoperable with the AT&T solution and any other solution that may also be implemented in Virginia at that time.

**Q:** Where are the procurement documents for the Fairfax RFP & contract on the VITA website?

**A:** Fairfax County has made all of the contract documents available on their website at:

<https://www.fairfaxcounty.gov/cregister/ContractDetails.aspx?contractNumber=4400007825>

The Participation Agreement that is required from any locality using the contract is not on this site, but it is an appendix in the Board's NG9-1-1 Deployment Plan on the VITA ISP website.

**Q:** Can we choose a solution other than AT&T?

**A:** Each locality may choose any solution they wish using an appropriate procurement avenue. Any chosen solution must be interoperable with the AT&T solution and any other solution deployed in Virginia at that time.

## Project Management

**Q:** Can VITA provide project management assistance?

**A:** The short answer is yes. This will be discussed with the locality during the development of the migration proposal and will be documented in the final proposal delivered to the locality.

## PSAP Operations

**Q:** Is this a good time to add text to 9-1-1?

**A:** Yes, text to 9-1-1 is a Board priority so its deployment can proceed regardless of NG9-1-1 deployment. The Board also identified text to 9-1-1 as a core service with NG9-1-1 so if it is not deployed before NG9-1-1 is deployed, it will be implemented with NG9-1-1.

**Q:** How do you transfer calls in case of abandonment or outage?

**A:** With the AT&T system, you will have several options for rerouting calls in cases where the PSAP is abandoned or suffers an outage. Generally, routing policies can be prebuilt to automatically reroute calls, calls can be rerouted with a telephone call to AT&T, or a physical switch can be provided to the PSAP to initiate the transfer, like many PSAPs have today.

**Q:** Do you expect that we will be able to backup between AT&T and another solution?

**A:** In theory, if both systems are compliant with the NENA i3 NG9-1-1 standard and they are interconnected (which would be a requirement), it should be possible; however, since it has never been done before, there would be many details to work out.

**Q:** Will AT&T provide ALI data for an outcall notification system like reverse 9-1-1?

**A:** Yes, AT&T can provide quarterly updates of this data at no charge to any PSAP needing it.

## RFP

**Q:** What if a locality is interested in doing an RFP?

**A:** Any PSAP interested in doing their own RFP may do so. They can contact their ISP regional coordinator if they would like assistance with the process.

**Q:** How will the funding work? Is it like a grant?

**A:** The Board will not approve the funding guidelines until May, but the current plan is that the process will start with the migration proposal. Regardless of whether or not the PSAP selects the AT&T solution, the migration proposal will identify all of the costs associated with the deployment of NG9-1-1. If the PSAP accepts the proposal and the costs identified, the PSAP will sign a Proposal Acceptance Letter (PAL) officially requesting the identified funding from the Board. VITA staff, the PSAP Grant Committee and the Board will evaluate all Migration Proposals and PAL and award funding to transition the PSAP. It is a grant process, but is different from the PSPA grant program of the past. The PSAP education program will still be available to PSAP in the same way it has always been.

## Robustness

**Q:** Has background work been done regarding what network diversity exists at the PSAP now?

**A:** Yes. AT&T has conducted a diversity study for each PSAP to determine where it exists and where it does not. If it does not exist, the study identifies how it can be most cost effectively achieved through AT&T or one of their partners.

**Q:** Is there site hardening?

**A:** For the AT&T solution, there is redundancy and diversity of all components in order to achieve 99.999% availability of the solution. Each of the six cores is in a tier 4 data center.

**Q:** What does cybersecurity look like?

**A:** AT&T is a service that commits to 99.999% availability. In the Fairfax County contract there is a cybersecurity risk assessment available.

**Q:** What does redundancy and diversity within the AT&T network look like?

**A:** Having redundant connectivity means having two connections, but they could be co-located or follow the same path. Having diversity means that those redundant connections follow different paths that never touch from origin to destination. To achieve the 99.999% availability, diverse connectivity is planned for all PSAPs. There is a chance the diversity is simply not available to all PSAPs. This will be discussed with each PSAP during the migration proposal process.

## Schedule

**Q:** When a 9-1-1 center is ready to deploy and someone on that selective router pair is not ready, what happens to the charges? Will the state help pay?

**A:** The goal is to migrate all PSAPs on a selective router pair within a six-month window. Though the funding guidelines will not be approved until May 2018, the Board is committed to covering any increased cost during this time period. If there is a delay and one or more PSAPs on the selective router pair cannot transition during the planned period, the Board would continue to cover the cost so long as those involved are making a good faith effort to get deployed. The Board cannot continue to cover this

cost indefinitely, but there are other transitional options for deployment that may need to be considered to migrate the PSAP off the selective routers.

**Q:** What happens to the timeline if the region goes out to RFP?

**A:** The goal is to transition off the selective routers as quickly as possible by doing it in a six-month window. As long as the RFP process can still deploy within that window, there is no impact. If the RFP process delays the deployment of several PSAPs on the selective router pair, then the deployment schedule may be revised to reflect the RFP schedule. It is all about managing the cost of the transition.

**Q:** If you are on multiple selective router pairs how will the transition take place?

**A:** The PSAP will be migrated with their primary selective router pair and all calls will come through the ESInet from that point forward. Details of this migration will be discussed during the migration proposal process, but the PSAP should only have to transition once and not for each selective router pair.

## Secondary PSAP

**Q:** What is the impact on secondary PSAPs?

**A:** It depends on the type of secondary PSAP. If the secondary PSAP is currently connected to a selective router, they will need to be migrated off of it like every other PSAP. Funding will likely be available to them to assist with this migration. Only five PSAPs have been identified thus far that would qualify for this: Manassas, Manassas Park, Falls Church, Richmond Ambulance Authority and the Washington Metro Airport Authority. All other secondary PSAP, which usually have their calls transferred to them on a 10-digit number, will not be impacted unless they want to join the ESInet. Their participation will be discussed during the migration proposal process for their primary PSAP, but no funding would be available for these PSAPs.

## VITA Assistance

**Q:** Can VITA assist with educating administrators, procurement officers and attorneys on the project, contract and other items?

**A:** VITA would be happy to assist. Webinars will be scheduled in the future for several of these groups. Please contact your VITA ISP regional coordinator with any questions or additional requests.

**Q:** What if we need to go to our Board for approvals? What can ISP provide to help with that?

**A:** VITA is creating educational material targeted to public officials to help local PSAP, GIS and IT managers. VITA can also speak directly to boards or councils, upon request. Contact your VITA ISP regional coordinator to request assistance.

**Q:** Can you share this information (Town Hall PowerPoint) and attendee contacts to the group?

**A:** The PowerPoint, along with other information will be made available via the VITA website at: <https://www.vita.virginia.gov/integrated-services/psc-9-1-1-services/ng9-1-1-deployment/>

**Q:** This is a lot to comprehend and I just don't understand it all. What should I do?

**A:** This is a major change to the 9-1-1 system and can be very technical. It is going to take time to absorb all the information. Please do not get discouraged. Don't hesitate to contact your VITA ISP regional coordinator. They will answer what they can and find the answers for everything else. Also, stay involved and ask a lot of questions. Everyone still has a lot to learn through this process.