



# Virginia Next Generation 9-1-1 Deployment Timeline, Observations, Recommendations and Requirements

## Historical Timeline

**2017-08:** Fairfax County selected AT&T for Next Generation 9-1-1 Core Services that included pricing for all Virginia localities.

**2018-01:** The 9-1-1 Services Board (Board) approved the Virginia NG9-1-1 Deployment Plan recommending use of the Fairfax County contract. The plan included a proposed deployment schedule starting in October 2018 and ending in 2022.

**2018-03:** Legislation was adopted with a deadline of July 1, 2023, for statewide NG9-1-1 deployment. This also provided the Board with discretion to extend this date for good cause, with a minimum of six months written notice to impacted stakeholders.

**2018-11:** The Board approved the first set of PSAP requests for NG9-1-1 deployment funding and a six-phase deployment schedule from January 2019 to December 2021.

**2019-01:** Virginia Beach issued an RFP for NG9-1-1 Core Services.

**2019-08:** Virginia Beach awarded a contract to AT&T for NG9-1-1 Core Services that included the same pricing as the Fairfax County contract. This provided Virginia PSAPs with two NG9-1-1 Core Services contract vehicles with cooperative procurement riders.

**2019-11:** The Board modified the deployment schedule to include eight phases deploying between January 2020 and December 2021. This update addressed two major concerns. First, CHE vendors needed more time to update their products to work correctly on the AT&T network. Second, roughly half of Virginia PSAPs requested more time to review the Virginia Beach contract prior to making their procurement decision. The schedule update also moved the Fredericksburg region from 4<sup>th</sup> to 2<sup>nd</sup> and Tidewater from 2<sup>nd</sup> to 4<sup>th</sup> because Tidewater was reviewing the results of the Virginia Beach RFP and the Fredericksburg region had received migration awards using the Fairfax contract.

**2020-03:** COVID impacts were seen across the country with an impact to on-site work and supply chains. Legislation was adopted to move the Public Safety Communications (PSC) Division and responsibilities for the Board from VITA to VDEM on July 1, 2020.

**2020-06:** Fairfax County became the first Virginia PSAP deployed on the AT&T network.

**2021-03:** The Board approved the last set of requests for NG9-1-1 deployment funding.

**2021-09:** Goochland County became the 10<sup>th</sup> Virginia PSAP on the AT&T network.

**2021-12:** Amelia County became the 20<sup>th</sup> Virginia PSAP on the AT&T network.

**2022-05:** Madison County became the 30<sup>th</sup> Virginia PSAP on the AT&T network.

## Observations and Lessons Learned

**Local Procurement Decisions:** The choice of CHE vendor, CHE maintenance provider, legacy 9-1-1 service provider and NG9-1-1 service provide are local choices. As a result, the primary relationships are between an individual PSAP and their chosen vendors. This was evident in 2019 when roughly half of Virginia PSAPs chose to wait for the results of the Virginia Beach RFP before making their NG9-1-1 procurement decision.

**Stakeholder Responsibilities:** Many stakeholders have different responsibilities for tasks and scope within the Virginia move to Next Generation 9-1-1 (the Board, PSAPs, AT&T, NGS Bureau, CHE vendors, Legacy 9-1-1 Service Providers and Originating Service Providers).

**Comparison to NG9-1-1 Deployment in Other States:** Most other states are deploying NG9-1-1 incrementally, phasing in smaller parts of the end-state solution, resulting in a phased deployment of geospatial call routing, diverse fiber connectivity, and i3 ready CHE. This is different from the approach in Virginia where these components are being deployed at the same time. Additionally, other sites take a more direct role with choosing the vendors, CHE providers, and equipment used by PSAPs. These differences add a level of complexity that is seen in Virginia that may not be seen in other states.

**Success Involves Working on Tasks in Parallel:** In Virginia, there are roughly 25 major tasks that need to be completed before being able to move a PSAP to the NG9-1-1 environment. Each of these tasks only involve two or three of the stakeholders listed above. When one part of the project like fiber construction takes longer than expected, the stakeholders working on that task should continue to complete the work, but other stakeholders who have responsibility for other areas such as CHE, GIS readiness or document completion should attempt to complete the other portions of the project that are not experiencing a delay.

**Each PSAP is Unique:** While each project has the same major tasks, the nature of the work needed for each PSAP differs to the unique configuration of stakeholders, equipment, and resources for each site. The variability and complexity make it challenging to many PSAPs to manage a project of this complexity.

**Moving from a Phased Approach to Statewide NG9-1-1 Deployment:** The Board-approved phased approach to NG9-1-1 deployment was very effective for obtaining funding and coordinating the start of work in a phased / structured manner. However due to the complexity and variability at each site, the completion time for PSAPs in the same geographic region varies greatly. Once work on a PSAP begins using the phased approach, work on each PSAP will continue until they are able to deploy. This will result in some PSAPs from earlier or later phases deploying out of order, but this is necessary to keep the deployment timeline from extending our several years into the future.

**Stakeholder Feedback on Overall Project Complexity:** Based on conversations with each stakeholder group in May and June 2022, each stakeholder commented that they did not fully anticipate the complexity of this project until recently. Similarly, they provided feedback that NGS charts, graphs, maps, reports, and other project coordination resources have been instrumental in helping them focus on their respective tasks while gaining visibility on upcoming PSAPs within their respective area of responsibility. This also helps stakeholders to anticipate resource requirements to overcome potential supply chain challenges that may exist at any given time.

**Tracking the Rates for Project Task Completion and Cutovers:** While recent discussions about NG9-1-1 deployment have centered on impacts from the pandemic, the Board made several schedule modifications between 2018 and 2019. Each of those adjustments occurred prior to the first cutover in June 2020. As a result, they were unable to incorporate the speed/rate of individual task completion and the speed/rate of successful cutovers into the updated statewide cutover schedule. A sample size of roughly 20-30 PSAP deployments is appropriate before updating statewide deployment estimates.

## 9-1-1 and Geospatial Services (NGS) Bureau Recommendations

**Coordination between NGS and AT&T:** NGS Bureau staff and AT&T meet twice a month to review regular updates to project tracking documents. NGS performs additional analysis on the AT&T information to develop supplemental briefing and coordination material, and broadly shares that analysis.

**Private Sector Stakeholder Coordination:** Targeted information can be provided to the multitude of stakeholders supporting NG9-1-1 deployment in a more coordinated fashion. NGS staff will begin to hold a monthly call open to 9-1-1 service providers, fiber providers, CHE maintenance providers and AT&T to address private sector coordination. This will streamline how these stakeholders receive statewide project updates and will also provide a forum for discussing emerging deployment trends and successes, and to resolve any significant issues or concerns.

**NG9-1-1 Deployment Deadline:** Staff recommend extending the NG9-1-1 deployment deadline by 12 months to July 1, 2024. If additional extensions should be needed, staff recommend future extensions in 12-month increments, matching with the state fiscal year.

**NG9-1-1 User Group:** While NGS staff currently support a NG9-1-1 GIS User Group, staff recommend the development of a NG9-1-1 User Group for PSAP stakeholders focusing on all deployment related tasks and activities to provide the opportunity for questions and feedback in all areas, not just NG9-1-1 GIS.

**NGS Bureau Staffing:** Currently, the NGS Regional Outreach Division Director manages the day-to-day supervision of the division and the NGS Regional Coordinators. The director also currently serves as the lead for NG9-1-1 project management within the NGS Bureau. These duties should be split among two people/positions with one staff member managing the Regional Outreach Division and another staff member serving as the NG9-1-1 Project Lead.

## NGS Bureau Requirements for Contractor Support

Assess the current NG9-1-1 deployment project management model to identify “process friction points” and provide recommendations to accelerate the deployment process and estimate project completion date.

Evaluate AT&T project tracking documents to provide more timely and targeted feedback with the following stakeholders: NGS staff, PSAPs, AT&T, 9-1-1 service providers, fiber providers, CHE maintenance providers.

Maintain the project metrics developed to support AT&T recurring calls, the NG9-1-1 User Group, stakeholder coordination calls and Board meetings.

Work with the NG9-1-1 Project Lead and stakeholder community to incorporate holistic observations into briefings for PSAPs, stakeholder groups, and for the Board and its committees.

Provide surge capacity to support NGS Regional Coordinator project management efforts and address staffing gaps that have implications for project call coverage by the NGS Regional Coordinators.

Supplement existing financial support for the project to improve visibility for PSAPs and NGS staff that incorporates the initial award, all amendments, reimbursement requests, and line-item closeouts.

Facilitate bimonthly Funding Review Team meetings and assist with the review and approval process for amendments, scopes of work, and closeouts.

Augment NGS staff to improve the interaction with legacy 9-1-1 and originating service providers as it relates to carrier billing agreements and OSP cost recovery.