



SUBMISSION FORM

All submission forms must include the following information. Separate submission forms must be turned in for each eligible program. **Deadline: July 1, 2024.** Please include this submission form with the electronic entry. If you do not receive an email confirming receipt of your entry within 3 days of submission, please contact [Gage Harter](#).

PROGRAM INFORMATION

County: Franklin County, VA
Program Title: GIS Enterprise
Program Category: Customer Service

CONTACT INFORMATION

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SIGNATURE OF COUNTY ADMINISTRATOR OR DEPUTY/ASSISTANT COUNTY ADMINISTRATOR

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VACO Award Application from Franklin County, VA – GIS

GIS ENTERPRISE – Project Overview

The History - GIS was introduced to Franklin County in the early 1990s to facilitate the conversion from rural route addresses to NENA-compliant 911 addresses. Its adoption, however, quickly expanded into a tool used by multiple County offices. It was still used to support addressing, but then also parcel geometry updates, road centerlines, and a growing list of other County functions. As the County's reliance on technology grew, the development of GIS initially kept pace. At some point, however, the growth and development of the County's GIS architecture fell below industry standards. Eventually, the County's use of geospatial technologies simply stopped keeping pace all together and languished. While the GIS Office continued to serve the County well in the services it did offer, it was admittedly serving a constricted footprint of county functions. There were simply more and more aspects of evolving GIS technology that remained untapped and unleveraged.

Over time, the County began to rely heavily on third party services to augment its GIS offerings. The subtle danger of this practice is three-fold. The first danger is that more county GIS services become dependent on an external entity's bandwidth to respond and deliver. The second danger is the weight of code debt, which is measured as the level of dependency on the customization of third-party solutions. Code debt can greatly constrain the natural evolution of solutions that would normally develop. Typically, as users continue to provide constructive feedback, new options are made available through the core enterprise software. This was no longer happening. The third, and most onerous danger, is becoming financially wedded to an external service provider or product. Once financially wedded, the flexibility to consider options, services, or solutions outside of the existing scope can be removed entirely.

So GIS had become in Franklin County.

A Fresh Mandate - In 2018 the County made select structural changes within the organization, one of which was the reporting structure for GIS. The GIS Office had been part of the County IT Department but was pulled out of IT and placed into the Community Development Department with Planning and Building. The timeline of this change corresponded with the hiring of a new GIS Manager. With all new leadership in place, the time was right for a fresh mandate for GIS. This mandate simply directed the in-coming GIS Manager to oversee getting the County's use of GIS back up to a national standard and to realize a greater return on the investment already being made in GIS technology.

The Strategic Plan - The first step in the process toward meeting the mandate was creating a new strategic plan for GIS in Franklin County. A GIS Strategic Plan had not been conducted since the initial implementation of GIS as a county-wide asset in the early 90s. So the original was far too out of date to be updated and a completely new plan was produced. This planning process followed a fairly standard format and included several key components that would inform the process moving forward. Here are some highlights:

- Introduction
 - o A brief history of GIS in Franklin County
 - o A clear statement of purpose for the plan overall
- The Current State of GIS in Franklin County
 - o An overview of the current enterprise, including architecture and licensing
 - o An overview of the current customer base of GIS and their impressions of GIS
- The Technology
 - o An overview of the software and solutions currently employed and their potential
 - o An overview of then current third-party solutions and their potential replacements
 - o A discussion of current best practices and trends in GIS and their potential benefits
- The Methodology
 - o An in-depth evaluation of the current state of GIS in Franklin County and its maturity
- The Pathway Forward
 - o GIS Infrastructure and licensing – closing the delta
 - o Empowering users, expanding services, and deepening adoption with user education
 - o GIS workloads and workflows
 - o Summarizing the required steps forward
 - o Three-year goals
- Conclusions

The Execution - The first of many observations was the clear need to break the County's dependence on third-party GIS services. This can present something of a chicken and egg conundrum, however. The need to pull the plug to provide the financial freedom required to make the required changes does not happen without consequences. Services could not be completely discontinued during the transition period, as some people, agencies, and companies were highly dependent on them. Ideally, there would be some overlap in the migration process from third-party solutions to in-house solutions in order to avoid a total interruption of services for our citizens. So, we approached our third-party provider and were honest and were up front with them about our intended path forward...and why. Fortunately, they were outstanding throughout the process, and both understood our reasons, and were extremely cooperative with us through the migration. They could have made that process difficult for us and rather abrupt for our users, but they did not. They validated the trust the County had long placed in them by their conduct.

With the savings from the elimination of third-party services, Franklin County pursued the next key step. This step was entering into a Small Government Enterprise Agreement (SGEA) for GIS licensing with Esri, the County's GIS software vendor. Franklin County was already an Esri customer, but the existing licensing was a' la carte and maintenance costs were inefficiently structured. Indeed, with the elimination of the third-party commitment and the replacement of a' la carte licensing, Franklin County was able to enter into its new SGEA for about the amount that the existing operating costs had been for both. The Small Government Enterprise Agreement also provided immediate access to a broad selection of GIS tools and solutions. This change allowed County GIS staff to more quickly accomplish several immediate benchmarks; bringing control of all data editing workflows in-house, self-hosting public GIS resources to better manage them, and the elimination of code debt by using DIY configurable solutions provided by Esri instead of highly customized third-party solutions.

The new licensing structure also allowed Franklin County to begin building a legitimate GIS Enterprise, not just a collection of stand-alone desktop installations of GIS software. The county now utilizes a far more comprehensive architecture that links the interoperability of desktop GIS, server-based GIS, Cloud-based GIS, and GIS solution-enabled smart devices to put geospatial data and tools into the hands of County staff. One of the primary components of this new approach is ArcGIS Online (AGOL), Esri's Cloud-based GIS platform. AGOL is a collaborative GIS platform accessed and shared via the Web. It is automatically integrated with modern desktop GIS software which puts the power of AGOL directly onto the desktop of GIS practitioners. AGOL also has many components and solutions of its own, including a robust survey tool, dashboards, GIS viewers, Story Maps, and many other tools Franklin County staff are now able to leverage. Team members working on joint projects can create a "Group" in AGOL to share content (*data, viewers, surveys, etc.*) and to restrict access to these elements among select collaborators until they are ready for this content to be shared more widely. This provides a level of operational freedom that enables collaborators to work through challenges and develop solutions before those deliverables are shared with others. AGOL provides access to an ever-increasing amount of powerful GIS functionality as well. It is, as some would say, bringing GIS to the non-GIS user. This has pushed the once constricted footprint of GIS services far beyond the limited bounds it once covered.

By providing internal and external users with an expanded palette of solutions, the County GIS Office is making Franklin County a far more tech-friendly place to live and work for local and prospective businesses, as well as our citizens. Now, citizens, companies, and visitors can explore the County's Online GIS Office to access online GIS viewers, access GIS services, download open data, or reach out to the GIS staff for assistance with any number of services or issues. So, in a relatively short period of time, Franklin County has evolved from a jurisdiction that had very limited GIS functionality to a leading example of effectively leveraging available GIS solutions within a small county.

Indeed, the Franklin County GIS Office now serves a far wider array of clients and participates in roles and activities that some might consider out of scope for a GIS Office. That, however, is actually a healthy sign that the GIS Office is steadily maturing and growing into a solid contributor within the County. Here is a selection of some of the key offices, agencies, and functions wherein the GIS Office now serves and/or assists:

- Commissioner of The Revenue
- Planning & Zoning Department
- Building Department
- The General Registrar of Elections
- Franklin County Department of Public Safety
 - o Fire, EMS, Animal Control, and Emergency Management
- Franklin County Broadband Authority
- Franklin County Sheriff's Office
 - o 911 Dispatch, Investigations, Special Events, Operations, etc.
- Parks & Recreation
- Library
- Economic Development
- Tourism
- County Administration
- General Properties
- Public Works
- Clerk of Court
- Local Towns
- Franklin County Public Schools
- The local business community
- The citizens of Franklin County
- Local utilities and service agencies

The Recognition

These accomplishments have not escaped the notice of Esri, the world's leader in GIS solutions. In the spring of 2023, Franklin County's GIS Manager was invited to speak on Franklin County's GIS renaissance at Esri's Southeastern Users Group Meeting in Atlanta, GA. Franklin County's GIS Manager then delivered a presentation on the same topic at the international Users Conference (Esri UC) in San Diego, CA in July of that year. In the spring of 2024, Franklin County GIS was notified of being recognized with a Special Achievement in GIS (SAG) Award for all the efforts behind the county's renaissance in GIS approach,

structure, maintenance, and delivery. The SAG Award is a recognition that, among the 100,000-plus Esri clients and GIS Offices around the globe, Franklin County GIS has accomplished something very special. Franklin County, and this year's other SAG Award winners, will be recognized at the international GIS conference in San Diego, CA in July. Representatives from Franklin County will be in attendance to receive this award.

Next Steps

Recently, the County went through a smaller reorganization. The Community Development Department was broken out into its three component parts, so the Building Department, The Planning & Zoning Department, and the GIS Office all became direct reports to the County Administrator's Office, each reporting to the Deputy County Administrator. This new structure places GIS in a good position to be able to serve the county more fully. When embedded inside of one department, GIS can sometimes be constrained by having to prioritize that one department's needs and wants above all else. Being centrally located under the County Administrator's Office ensures that everyone that needs the services and assistance of the GIS Office has equal access. This positions the GIS Office quite well for the future.

Not resting on any laurels, Franklin County GIS is already undertaking several new initiatives while maintaining the hard-won progress described above. The challenge is balancing and maintaining the elevated levels of service that have now been re-established while continuing to push the technology to serve the county organization and its citizens better and better. This challenge is compounded by the fact that all of this has been accomplished, and must now be continued, with only two full-time GIS positions. It is obviously demanding, but the technology itself does act as something of a force multiplier. Plus, the good thing about operating a GIS Office in a small and lean organization is that every step is quite intentional, and every success or failure is fully transparent. As a smaller organization, we also experience a sense of connectedness that is sometimes understandably missing in larger organizations. Due to this,

when the Franklin County GIS Office is successful in something, the entire organization is successful in it as well. So, while the GIS Office is the impetus of this particular nomination, it is the entire organization that has fostered any present success. Similarly, it is the entire organization that will foster any future success. So, we will all take those next steps together and work toward a very bright future for GIS and Franklin County.