

AWS, GIS Configuration & Implementation for County of Hall, GA

Statement of Work

July 12, 2023

ROK  **TECHNOLOGIES**

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1 Introduction

County of Hall, GA has engaged ROK Technologies, LLC (ROK) to perform high-level services related to County of Hall, GA's AWS Configuration and GIS implementation.

This Statement of Work (SOW) sets forth the scope of services and deliverables to be provided by ROK and the terms and conditions under which the services shall be conducted.

2 Objectives

The following high-level objectives will be completed as part of this project. The timeline is dependent on County of Hall, GA delivering all items defined in section 9.2 of the scope of work entitled Customer Responsibilities to ROK Technologies in a timely manner.

2.1 Areas in scope

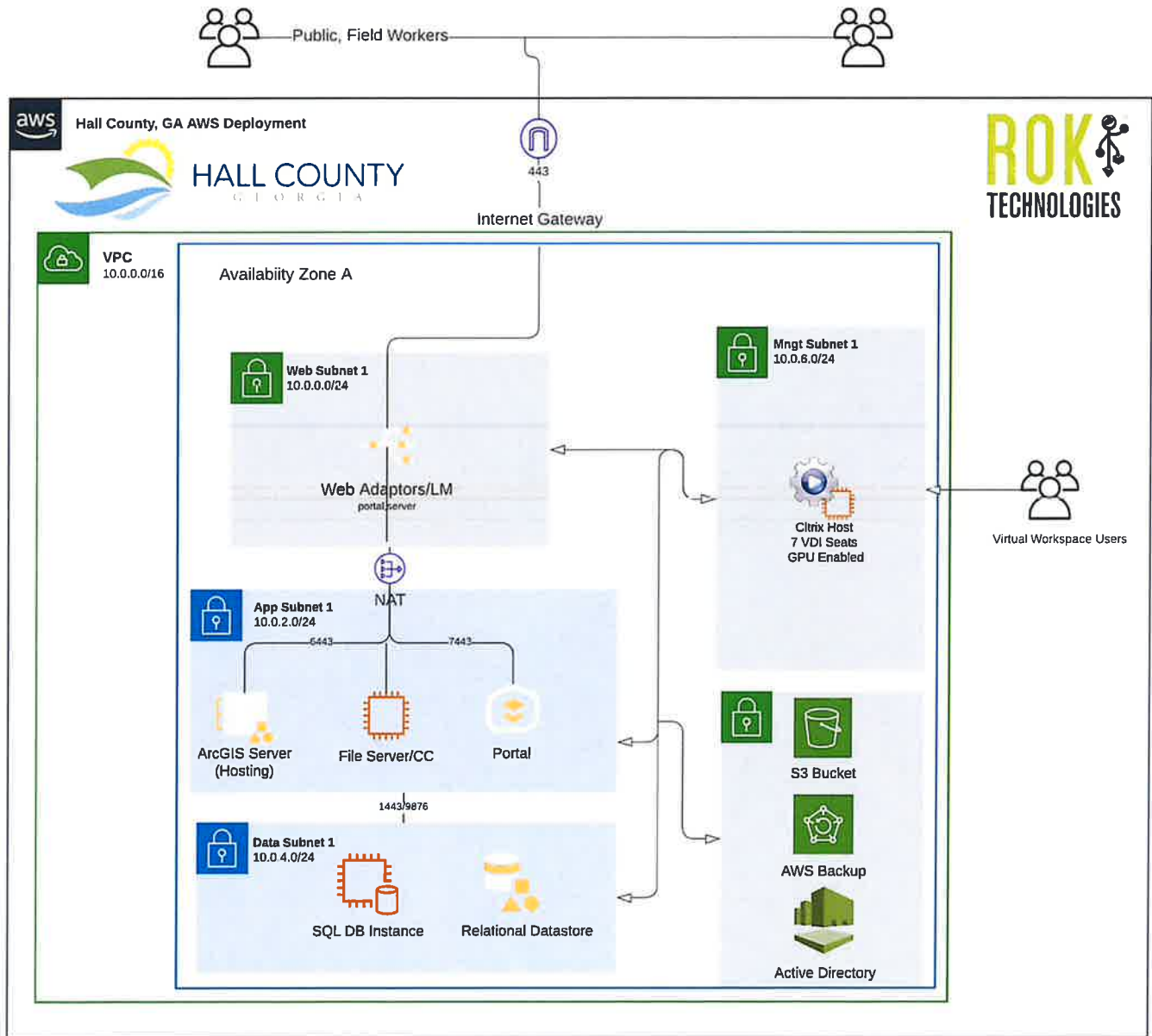
This section outlines the work and activities required to accomplish the objectives set forth in this Statement of Work.

General project scope

The County of Hall, GA wishes to perform services related to the creation and configuration of a AWS deployment and GIS implementation related services to support the County of Hall, GA's Esri software.

As part of this initiative, County of Hall, GA is looking to have a production ready deployment of the necessary Cloud components to support their Esri software. Examples include the underlying Cloud Tenant, the primary Virtual Network, Storage Accounts, backups and other related items.

Below is a diagram of the requested environment(s).



3. Project approach, timeline, and deliverable acceptance

Phase 1: Cloud Environment Deployment

□ **Time Est: 2 Weeks**

1. Configuration of the necessary Cloud components, including but not limited to:
 - a. Configure Cloud subscription and resource groups
 - b. Configure IP Space, virtual networks, and peering.
 - c. Deploy baseline Network Security Groups
 - d. Deploy Infrastructure, add Infrastructure to Active Directory, and configure account permissions
 - e. Configure back-ups, monitoring, and maintenance Schedules

2. Deployment of the following in AWS:

Name	Server Name	Qty	ENV	Uptime %	OS Storage (GB)	Data Storage (GB)	Log Storage (GB)	Server Size
AWS - Active Directory		1						
AWS - ArcGIS Portal		1	PRD	100	100	150		4 vCPUs 16GB RAM
AWS - ArcGIS Relational DataStore		1	PRD	100	100	150		4 vCPUs 16GB RAM
AWS - ArcGIS Server		1	PRD	100	100	150		8 vCPUs 32GB RAM
AWS - Citrix Server		1	PRD	100	100	500		8 vCPUs 32GB RAM
AWS - File Server		1	PRD	100	100	500		2 vCPUs 8GB RAM
AWS - S3 Bucket - 1TB		2						
AWS - SQL Server		1	PRD	100	200	300		4 vCPUs 16GB RAM
AWS - Web Server		1	PRD	100	100	150		2 vCPUs 8GB RAM
Citrix Seat		7						

Phase 2: Install and Configure Esri Software

□ **Time Est.: 2 Weeks**

- Prior to install and configuration County of Hall, GA shall provide ROK Technologies, LLC with the following:
- Any applicable licensing files, software downloads or login credentials to County of Hall, GA's MyEsri.com account.

- SSL cert as a .pfx. This can be provided by ROK Technologies, LLC by request.
 - Domain account and confirmation of domain names and URLs.
 - VPN and RDP access to existing environment if needed.
1. Pre-Installation Operations: obtain all licensing, configure Service Account(s), configure centralized network location(s) for content and configuration stores.
 2. Install and License the following components of County of Hall, GA's ArcGIS Enterprise Stack:

County of Hall, GA Enterprise Components	Current Version if applicable	Install Version
ArcGIS Enterprise	10.9.1	11.1
ArcGIS Server	10.7.1	11.1

3. Configure ArcGIS Enterprise Environment: configure security posture (import Certificates, HTTPS vs HTTP), configure appropriate ports for SSL communication between application servers, configure Web Adaptors, configure Datastore to the hosting server(s), federate hosting and ArcGIS Server with Portal, configure SAML and Enterprise logins
4. Deploy and Validate ArcGIS Enterprise: apply critical security, OS and Esri Patches, validate Enterprise logins, publishing workflows, and database connectivity.

Phase 3: Asset Migration and Testing

□ **Time Est.: 2 Weeks**

Services –ROK will collaborate with the County of Hall, GA Team to migrate the following data and services to the new cloud environment.

Databases: 1 EGDB

Map Services: up to 10 services

Web Applications:0

For all non-Esri COTS applications, ROK will perform the following activities:

- Address any IT considerations in relation to ArcGIS or your cloud environment (opening ports, configuring certificates, users, etc.)
- Provide reasonable third-party access as requested and defined by our customers
- County of Hall, GA will provide contact information for any vendors associated with the third-party application(s) and assist ROK in gaining access to said vendors as needed throughout the migration

- County of Hall, GA is responsible for confirming third-party application is compatible with the new, contracted environment and will be responsible for any migration of software, hardware or datasets to support these applications outside of the software and datasets detailed in this statement of work.

Phase 4: Go Live

- **Time Est.: 3 Weeks**

Testing and Parity: ROK will have worked with County of Hall, GA to approve the new environment through extensive testing. Following this, ROK will request a new database backup from County of Hall, GA to ensure that County of Hall, GA's most recent data is in the new environment.

- ****ROK will not be responsible for updating any services, web maps or apps not listed in this agreement. If additional services, web maps, or apps are not migrated as a part of this agreement, it is the sole responsibility of County of Hall, GA staff to keep those services updated until such time they choose to migrate them in the cloud environment.**
- **Identifying the Date:** ROK will work with County of Hall, GA to identify a weekend that will work for the cutover. The week before the cutover, ROK will take County of Hall, GA through the hand-off documentation that contains all of the new passwords and access information for the new environment, along any relevant training.

4 Current Environment Readiness

This Statement of Work assumes that County of Hall, GA's physical and cloud-based environments and network infrastructures are prepared to accommodate the equipment and services to be provided by ROK within the scope of this project. Upon discovering any deficiency that would prevent or otherwise hinder project execution, ROK shall notify County of Hall, GA of the deficiency in writing and work in good faith with County of Hall, GA to adjust the project schedule to accommodate remediation of the issue. Services that are dependent on the remediation of the deficiency will be postponed or suspended until the remediation is complete. ROK is not liable for any delays to the overall project plan necessitated by remedial activities and shall be held harmless for changes in the schedule resulting from such activities.

At present, ROK is not aware of any limitations to a successful engagement.

4.1 Project Prerequisites

The following items have been identified as critical to the overall success of this engagement and should be completed by County of Hall, GA prior to commencement of this engagement:

1. Project stakeholders identified, and necessary design and discussion sessions scheduled.
2. Administrative access to environments related to the scope of this engagement shall be provided and tested during an agreed upon window. Access may include but is not limited to: Existing architecture diagram, establishing VPN access to the existing environment, RDP access, administrative access to Esri Software(i.e ArcGIS Server, Portal), IP addresses, administrative access to any RDBMS, usernames and passwords for accounts running software or services involved in this effort.
3. URLs identified.

4. SSL Cert obtained. This can be provided by ROK Technologies, LLC upon request.
5. Licensing required for successful deployment of the items described in this statement of work.
6. Timely access to County of Hall, GA's IT personnel for Q&A support.
7. IT personnel will be responsible for taking backups of authoritative data and snapshots of all servers during an agreed upon window prior to any migration activities taking place.

4.2 Customer Environment Access Protocol

As part of ROK's commitment to assuring secure and protected County of Hall, GA environments. ROK requires the use of named accounts for all ROK resources who will engage in activities that involve access to on- premises or cloud-based County of Hall, GA-owned systems. ROK strongly recommends not utilizing shared accounts. The use of shared accounts can lead to an increase in system vulnerability, as well as a reduction in auditing and compliance capabilities. County of Hall, GA accepts all liability for the use of shared accounts.

ROK asks that the following policies be applied to accounts created for ROK resources engaging in project work:

- Based on the initial project plan, the account expiration be set to 8 AM on the day following the scheduled project completion. The ROK Project Manager shall request extensions as necessary to accommodate project delays, change orders, or other events that may cause a project to take longer than initially anticipated.
- Named user accounts shall be configured to require password resets as permissible by Hall County's MIS Guidelines and shall not be set to disable required password changes.
- The length and complexity of named user account passwords shall be configured per the County of Hall, GA's standard policy. ROK suggests that passwords be at least 10 characters in length and utilize a combination of upper and lower-case numbers, numeric values, and special characters i.e., strong passwords.
- A named user account shall be granted no more than the minimal required permissions to perform the specific tasks assigned to the ROK resource.
- For larger projects that involve multiple systems, care shall be taken to not grant a single named user account access across those systems in such a way that could lead to a system-wide compromise. For example, the ability to create and set permissions on Active Directory accounts, as well as the ability to modify Access Control Lists on network security devices shall not be granted. In these cases, separate accounts may be created, or ROK resources will collaborate sufficiently to complete the necessary objectives.

If County of Hall, GA requires and would like assistance in remediating insecure environments to ensure that the policies above can be implemented and enforced, ROK can provide these services through a separate agreement. If any deviations to this policy are required to satisfy project objectives, ROK requests that the specific deviation and justification be communicated to the assigned Project Manager, so it may be evaluated, and potential alternative approaches identified. This will also allow the ROK Project Manager to communicate the removal of approved deviations when they are no longer required to satisfy the project's objectives.

5 Scope Exclusions

The following tasks are beyond the scope of services to be provided by ROK during this engagement:

1. Any task not explicitly described as within the scope of this engagement.
 2. Corrective measures for any issues or risks identified during the course of this engagement.
- NOTE:** A change form(s) may be issued for approval and funding of requisite changes to scope

6 Deliverables

At the conclusion of this engagement, ROK shall deliver the finalized versions of the deliverables produced and maintained throughout the course of project activities:

ID	Deliverable	State	Description
ENV	Configured Environment	Completed	<ul style="list-style-type: none"> • All services in project scope completed and available for use.
DOC	Project Documentation	Delivered	<ul style="list-style-type: none"> • Project documentation in the form of daily worklogs and knowledge transfer.

7 Estimated Duration

This estimated duration is reflective of the work effort associated with each activity and is subject to change due to changes in scope, issues encountered, planned maintenance windows and other business reasons encountered during execution. The actual duration will be finalized during the project initiation.

This schedule assumes that change control procedures will not introduce delays in the execution of project tasks.

8 Project Fees and Billing

The services associated with this project shall be provided on a Fixed Fee and Time and Materials basis. Project fees shall be billed at inception. Terms of payment are Net 30 Days. Late fees will be applied on invoices greater than 60 days from the date invoiced.

9 Assumptions and Customer Responsibilities

9.1 General Assumptions

This SOW is based upon the following assumptions:

- i. ROK will provide project personnel knowledgeable with the aforementioned products based on the skills required at the appropriate times and in accordance with the work breakdown structure.
- ii. The normal “on-hours” workday for the project will be 8:00 AM to 6:00 PM Eastern Time, Monday through Friday. “Afterhours” is work performed between 6 PM and 8 AM Monday through Thursday (Friday at 8 AM) and is billed at 1.5X the standard rate. Weekend and Holiday is any work performed between 6PM Friday and 8 AM Monday or on a National Holiday and is billed at 2X the standard rate.

9.2 Customer Responsibilities

If the project is to be successful, County of Hall, GA must commit to the following obligations:

1. County of Hall, GA will provide a single point of contact for project coordination between County of Hall, GA and ROK and that *person* will be responsible for ensuring County of Hall, GA project personnel are on target with their assigned duties in accordance with the work breakdown structure.
2. County of Hall, GA will provide ROK with all relevant system and network documentation, as requested.
3. County of Hall, GA will make all essential stakeholders available to ROK throughout the duration of this engagement.
4. County of Hall, GA will make the majority of the administrative and configuration information available to ROK prior to the commencement of this engagement.
5. County of Hall, GA will make timely decisions in collaboration with ROK regarding escalated or critical issues as they arise during the project.
6. County of Hall, GA will provide suitable work area spaces with desks, chairs, and telephones (if applicable), as well as necessary customer systems accounts and passwords.
7. County of Hall, GA will assume responsibility for management and coordination of all non-ROK managed vendors.
8. County of Hall, GA will provide access with proper licenses to all necessary tools, software, and third-party products required for ROK and County of Hall, GA to complete their assigned project tasks.
9. County of Hall, GA will maintain active vendor maintenance agreements for the technology impacted by this project or will otherwise obtain vendor maintenance as required to support this project throughout its duration.
10. County of Hall, GA will notify ROK project management of any unscheduled or scheduled projects outside of this implementation that might interfere with the project schedule.
11. County of Hall, GA will obtain any downtime windows reasonably required to keep the project on schedule.
12. County of Hall, GA will provide ROK with high priority access to the County of Hall, GA IT team members with knowledge of current technology configurations and operational processes and with responsibility for administering the technologies that will be impacted by this project.

10 Change Control Process

As ROK and County of Hall, GA collaborate on this project, it is possible that either party will find reasons to change the scope, timeline, or overall budget.

While this need might be identified by a member of County of Hall, GA's team or a member ROK's team, ROK's Project Manager will handle documentation and communication of the change to County of Hall, GA's designated point of contact. ROK and County of Hall, GA shall work together in good faith to assess the impact of the change and determine whether the proposed change shall be accepted or rejected.

11 Project Team

ROK Team

The Project Manager is the person responsible for ensuring that the Project Team completes the project. The Project Manager develops the Project Plan with the team and manages the team’s performance of project tasks. It is also the responsibility of the Project Manager to secure acceptance and approval of deliverables from the Project Sponsor and Stakeholders. The Project Manager is responsible for communication, including status reporting, risk management, escalation of issues that cannot be resolved in the team, and, in general, making sure the project is delivered in budget, on schedule, and within scope.

Engineers are responsible for executing tasks and producing deliverables as outlined in the Project Plan and directed by the Project Manager, at whatever level of effort or participation has been defined for them.

Stakeholders are all those groups, units, individuals, or organizations, internal or external to our organization, which are impacted by, or can impact, the outcomes of the project

County of Hall, GA Team

ROK engineers will work with a Primary Contact for each architecture type throughout the project. This person is responsible for maintaining the systems after the ROK engineers have completed the project and providing key data as the project is being completed. This person will shadow ROK’s engineers as needed and should review documentation.

The Secondary Contact is someone who can handle issues and escalations should the primary contact be indisposed during the project and after the project is complete. This person will shadow ROK’s engineers as needed and should review documentation.

12 Acceptance

This Statement of Work constitutes the full agreement (“Agreement”) between ROK and County of Hall, GA for the services described herein.

The undersigned parties acknowledge their acceptance of this Agreement and the terms and conditions described herein. Furthermore, the undersigned parties certify that they are authorized representatives of their respective companies with full authority to sign this SOW and enter into this Agreement on behalf of their respective organizations.

Services	Price
Cloud Implementation Cost	20,000.00 USD
Services Subtotal	\$20,000.00 USD

Should the length of engagement exceed the timing indicated in this agreement at no fault of ROK Technologies, LLC, additional cost will be invoiced by the hour at a rate of \$250/hour.

Accepted By:

ROK Technologies, LLC

County of Hall, GA

Signature: 

Signature:

Name: Alexandra Coleman

Title: CEO, ROK Technologies

Date: July 12, 2023

Name:

Title:

Date:

Approved as to Form:


Van Stephens, County Attorney
Justin Lawhon, Assistant County Atty