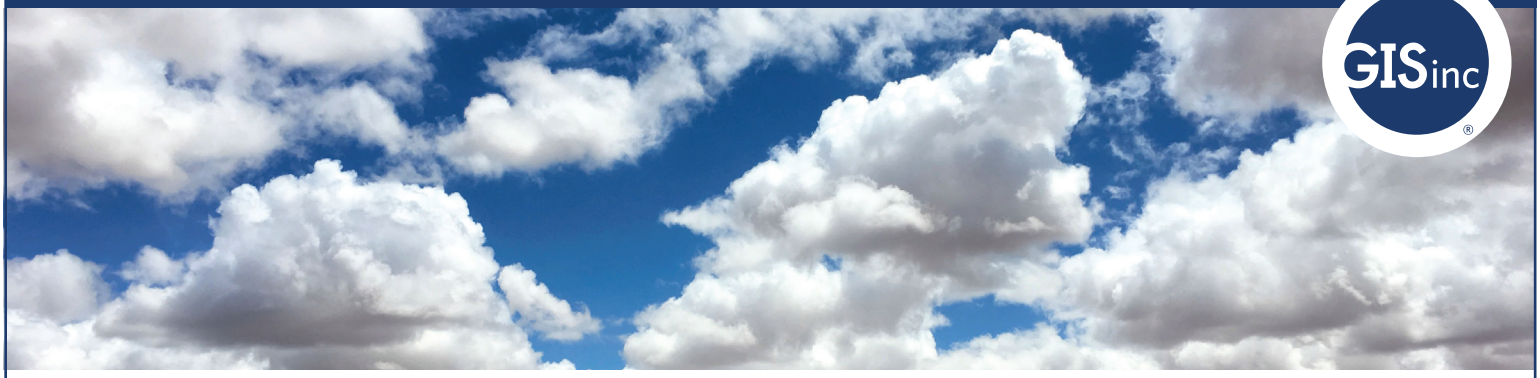

Managed Services

Helping Esri Customers Define, Secure, and Deploy Cloud Strategies

GISinc has delivered cloud-based, Esri-centric services for nearly a decade. We've providing dozens of clients with highly varied offerings and managed services, ranging from very simple, consolidated deployment patterns to robust, fault tolerant and highly available systems. Although we do not host software/data/applications on GISinc-owned infrastructure, we leverage the cloud (e.g., AWS, Azure, private) to facilitate hosting for our clients, wherein the software licensing is procured by the client, the data is provided by the client, and the applications are hosted in a cloud environment created specifically and exclusively for that client (no shared environments or access).

We have highly trained (AWS certifications in progress) and focused personnel delivering services in the following areas:

Architecture & Design:
Foundational to the success of a cloud deployment is understanding the technical, functional, and utilization requirements. This in turn allows GISinc to engage in the appropriate level of architecture design. Our team has employed the Esri tools and models to facilitate system design and capacity planning (in combination with our intimacy with the various types of cloud instances) to help identify the deployment pattern, optimize performance, and minimize cost. We operate with consideration and guidance regarding best and recommended practices, but also work within client constraints to help deliver on organizational objectives.

Cloud Environment Setup & Facilitation:
GISinc will facilitate procurement and configuration of the cloud environment through a provider preferred by the client, though Amazon is our de facto standard. We accommodate billing preferences of our clients as well, wherein some clients opt for the cloud fees to pass through GISinc and others request to receive the invoices directly from the provider. In either case, our approach to establishing and configuring the environment remains the same. We employ best practices with respect to architecture and deployment patterns as supported by client budget, performance objectives, and fault tolerance requirements.

Cloud Migration
The GISinc Managed Services are not just for prospective clients looking to implement a solution for the first time. Communities and organizations across the country have enterprise solutions deployed to existing architecture that, for one reason or another, needs replacement. We have worked with clients to help migrate on-premise implementations to the cloud (or even cloud to cloud migration) through a process that mitigate impact. The process starts by establishing an understanding of the current deployment, architecture, and dependencies to help arrive at a migration plan that is informed and can minimize disruption to production workflows and functionality.

Base Environmental Management:
GISinc assumes administrative responsibility for the servers, including operating system management (i.e., patches, upgrades, etc.), security and access controls, and general system health management. We propose monthly review and action plans as part of our standard packages. We designate a fixed number of hours per month toward base environmental management that is scaled to the architecture we are managing.

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Server Monitoring:
To help track system health and server performance, we will optionally implement a server monitoring solution, either provided by Esri or developed by GISinc. These system monitors help our management be more proactive with reporting and notifications that can trigger action in between scheduled reviews and potentially draw attention toward an underlying issue before a problem arises.

Periodic Software Upgrade:
Within our standard proposed services, GISinc will often include one primary software (i.e., Esri, Cityworks, etc.) upgrade annually. The upgrade is to be mutually agreed upon and will target a release of the target software that is demonstrated as stable. Our default approach is to target in place upgrades unless a parallel upgrade is strictly required, in which case the proposed approach and effort will be adapted to accommodate client request.

Ad Hoc Support:
Whereas the hours we propose for Base Environmental Management are used at the discretion of the GISinc team to ensure the system is healthy and responsive, many of our client also wish to have access to our team for ad hoc requests for service. The client requests are not limited by topic, only by the number of hours afforded by their budget, and may include such things as platform configuration, data migration, automation, knowledge transfer, or more. The ad hoc support introduces a very flexible and productive component to our managed services offering.

Example Projects:
Listed below are just a few example projects and clients that have taken advantage of the spectrum of GISinc managed services:

Client	Architecture & Design	Setup & Facilitation	Cloud Migration	Environmental Management	Server Monitoring	Periodic Software Upgrade	Ad Hoc Support	ArcGIS Enterprise	GeoEvent, Insights, StreetMap, etc.	ArcGIS Pro, ArcGIS Desktop	Other (Non-Esri)	Amazon	Azure	Private	Design Notes
North Carolina Emergency Management (NCEM)	✓			✓			✓				✓			✓	FedRAMP, HA/FT
Hartsfield-Jackson Atlanta International Airport (ATL)	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓			Transitioning to App Stream
Sangamon County, IL		✓		✓		✓		✓				✓			
Scioto County, OH		✓		✓		✓		✓				✓			
Monroe, MI		✓		✓		✓		✓				✓			
Southfield, MI		✓	✓	✓		✓		✓				✓			
Birmingham, MI		✓		✓		✓	✓	✓				✓			
Opelika, AL	✓	✓	✓	✓		✓	✓	✓		✓	✓		✓	✓	App Stream, UN
Commercial Logistics Client*	✓	✓		✓	✓	✓	✓	✓	✓				✓		HA/FT, High Volume
Commercial Energy Client*					✓			✓		✓		✓			FME Server
Commercial Logistics Client*											✓	✓			App Server
Commercial Construction Client*		✓					✓				✓	✓			File/Media Server

**Note: Given the proprietary nature of our private/commercial clients, company names are withheld.*

esri Partner Network Platinum

Cityworks Partner Network

esri Release Ready Specialty

esri ArcGIS Online Specialty

esri ArcGIS for Local Government Specialty

esri Federal Small Business Specialty

esri ArcGIS Marketplace Provider

esri ArcGIS Hub Specialty

esri ArcGIS Indoors Specialty

esri Utility Network Management Specialty