



Whitepaper: The Advantages of Outsourcing Geographic Information Systems

Many corporations and government agencies are getting high returns from utilizing GIS technology to visualize their risk profile and as a decision-making tool to mitigate the wide range of threats in today's dynamic operational environment. Once an organization has recognized the value of GIS for assessing and managing risk, they must decide whether to create this capability in-house or to outsource. A number of considerations drive this decision.

Headcount and Experience

An effective GIS risk management capability should incorporate subject matter experts in the fields of intelligence analysis, corporate security, business continuity, crisis management, and disaster recovery. Outsourcing enables a corporation to tap into a wide range of expertise to cover the entire risk spectrum without having to hire a staff of full time experts and with very little learning curve. Although industry focus and experience is important, more robust geographic analysis can occur when mapping data are viewed from a broader perspective of disciplines. Trends and patterns emerge that may not be recognized from someone with single industry experience.

Additionally, a more experienced team will enable an organization to quickly assess and react to threats to which junior level GIS analysts may not have insight.

Cost

Cost is usually the primary driver in most business decisions. In addition to purchasing software and hardware, there is a significant learning curve and training cost associated with GIS software. The cost for establishing a basic full time GIS Risk Management Group is detailed in Figure 1.

Figure 1: Internal GIS Group Establishment/Operating Cost

Set-up Cost	
Software	\$ 2,000
Hardware	\$ 2,000
Staff Training	\$ 10,000
Minimal Annual Operations Cost	
Salary - Mid-level GIS Analyst (with benefits)	\$ 57,500
Salary - Database Analyst (with benefits)	\$ 34,500
Salary - 25% headcount of Risk Manager to supervise GIS analysts	\$ 25,000
Salary - 10% headcount of Security Manager to advise GIS analysts	\$ 10,000
Salary - 10% headcount of Bus. Continuity Manager to advise analysts	\$ 10,000
Salary - 10% headcount of Disaster Recovery Manager to advise analysts	\$ 10,000
Total Cost for First Year	\$ 161,000



Note, a successful GIS program also requires a substantial investment in time from professionals in various risk disciplines to oversee and advise the GIS analyst team. On the other hand, outsourcing GIS allows a corporation to pay for only those mapping services they need, without increasing headcount and investing capital in hardware and software. Outsourcing is also a way to “test the waters” to understand the benefits of geospatial intelligence and risk mapping without making a substantial financial outlay.

Going it Alone: Establishing an Internal GIS Capability:

There are circumstances where it may be appropriate for a large corporation or agency to establish an organic GIS mapping and analysis capability. These include: 1) Organizations already have a 24/7 monitoring capability to keep abreast of the wide range of risks which can be mapped, 2) Organizations that can afford a dedicated full time staff of GIS analysts and programmers, and 3) Organizations that have national security classification issues associated with their operations. When establishing a dedicated in-house GIS risk management program, it is important to incorporate best practices and hire the most experienced and best-trained personnel a company can afford.

GeoCritical, LLC provides a variety of mapping products and services to help your corporation perform in today’s uncertain environment. GeoCritical’s services are ideal for corporations that want to effectively identify and manage risk across the spectrum of environmental, political, and criminal threats. For those organizations where it makes sense to establish an internal GIS capability, GeoCritical can provide start-up guidance and training, leveraging years of experience in providing GIS risk management products to Fortune 500 corporations. Our geographic intelligence experts have experience supporting dozens of industries, and have mapped and analyzed risks for decision makers in the corporate, military, and government intelligence sectors.

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