



COST BENEFIT ANALYSIS

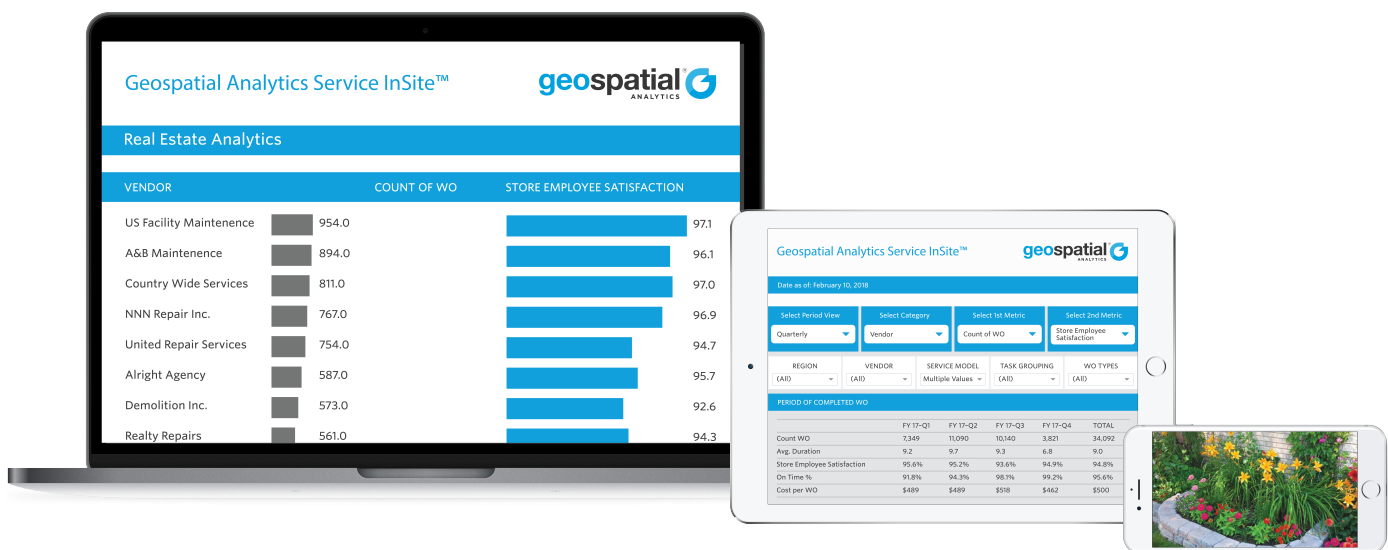
Enterprise Service Management Solution



How to Perform a Cost-Benefit Analysis for Geospatial Analytics Inspection InSite™ and Geospatial Analytics Service InSite™

This document describes ways to perform a cost-benefit analysis of your organization's investment in the following:

- Geospatial Analytics Inspection InSite™ — an intuitive, cost-effective mobile application for transforming your manual facility inspection processes.
- Geospatial Analytics Service InSite™ — a cost-effective, intuitive enterprise service management solution.



Estimating Net Benefits from an Automated Inspection Process

Geospatial Analytics Inspection InSite™ is an intuitive, adaptable mobile application that enables you to efficiently create and maintain a record of service provider cost, timeliness, quality, and overall performance. This gathered data resides in the Geospatial Analytics Info InSite™ database for subsequent analysis using Geospatial Analytics Service InSite™ (or using your existing in-house capabilities).

In the absence of an efficient tool such as Geospatial Analytics Inspection InSite™, the legacy manual inspection process is cumbersome and time-consuming. Data gathered on paper forms must be keyed into a database or spreadsheet manually, and photos need to be relabeled and uploaded. These manual processes are prone to data entry error and inconsistent evaluations by various inspectors across the organization due to a lack of standardization of service provider performance measures.

Geospatial Analytics Inspection InSite™ can reduce the time your in-house or contract inspectors spend in various ways, described below. A cost-benefit analysis for this solution includes:

- Estimating in-house annual labor savings in these various ways (scaled across all your inspectors and facilities), using assumed loaded labor rates, which can be a blend of inspection, administrative, and management rates, as appropriate.
- Subtracting the solution's license costs to determine the net savings.
- Estimating the savings in future years and applying a discount rate to determine the net present value of the total savings.
- Estimating savings based on fewer errors per inspection using intuitive mobile applications.



Ways you can reduce inspection costs using this powerful solution

- **Elimination of Clipboards and Cameras**

Using a smartphone/tablet-based application, stand-alone cameras are not needed, and paper-based data collection processes (e.g., post-inspection management of hardcopy inspections) can be eliminated.

- **Avoid Manual Data Entry and Photo Uploading**

Enabling the automated entry of data and photos into a centralized database avoids the intermediate step of manually entering this data after it is collected. To estimate these savings, you can approximate the percentage reduction in the time needed to gather/input the data and photos, compared to the total time spent per inspection.

- **Avoid Data Entry Errors**

Direct entry of data and photos also eliminates data entry errors. To estimate these savings, you can estimate the percentage reduction in time needed to correct these errors, compared to the total time spent per inspection.

- **More Objective Data**

Geospatial Analytics Inspection InSite™ provides objective, standardized criteria for a broad range of service provider types and services, enabling consistent input of service provider cost, timeliness, quality, and overall performance across inspectors and facilities. To estimate savings due to this, you can treat subjective data as a form of data entry error, and increase the percentage reduction in time needed to correct these errors, compared to the total time spent per inspection.

- **More Complete Inspection Inventory**

By prompting facility technicians to inspect a broad range of service types and common problems with any given service, Geospatial Analytics Inspection InSite™ ensures a more complete inspection record than is likely during unprompted, manual processes. To estimate this benefit, you can approximate the time spent identifying services not inspected, service problems not sufficiently specified, and re-inspecting the services provider's performance, compared to the total time spent per inspection.

You can then extrapolate these five types of savings across the number of inspections, inspectors, and facilities. (Note that if the percentage reductions of these efficiencies sum to only 10%, there can be significant savings for a company with many inspectors and facilities.)

Automated Inspections and Value Creation

A growing number of companies are discovering the value of an enterprise service management program using mobile applications to automate their inspection processes. By creating a strategic approach to collecting critical information, facility managers can reduce costs and improve the quality of the information. Many Geospatial Analytics® Enterprise Service Management customers have experienced 50% or greater reductions in inspection costs, and some have identified payback periods of just a few months.

Estimating Net Benefits from Improved Decision Making

Geospatial Analytics Service InSite™ is a data analytics tool that enables you to analyze the data gathered using Geospatial Analytics Inspection InSite™ that resides in the Geospatial Analytics Info InSite™ database (or using your existing in-house capabilities). In the absence of an enterprise service management solution, the legacy decision making process for services can be inefficient and inconsistent, and can complicate optimizing service offerings, financial forecasting, and risk management.

Geospatial Analytics Service InSite™ provides facility owners and managers with a strategic planning process that aggregates data regarding cost, timelines, and performance of all your service providers. This provides a better understanding of the costs and services you are receiving enterprise-wide, as opposed to managing it on a facility-by-facility basis.

This powerful tool empowers you to:

- Consolidate engagement with service providers to reduce overall cost, increase speed, and enhance quality of service
- Use a consistent, objective approach to selecting and engaging with service providers
- Optimize your total cost of ownership of assets by optimizing your services
- Perform risk-based evaluation of cost/performance trade-offs for services

The crux of the cost-benefit analysis includes:

- Estimating in-house annual savings using these capabilities either in the aggregate or by service category
- Subtracting the cost of the solution's license fee to determine the net savings
- Estimating savings in the future years and applying a discount rate to determine the net present value of the total savings.

Examining each of these capabilities provides ways to perform such a cost-benefit analysis

- **Enhancing Volume Purchasing**

Geospatial Analytics Service InSite™ identifies opportunities for facility owners to consolidate engagements with service providers. This can include:

- Purchasing more types of services for a single service provider (i.e., rationalization)
- Obtaining more of a single service type from one provider to obtain volume discounts
- Identifying “should-cost” pricing
- Reducing markups by purchasing directly from the service source

To calculate these savings, estimate the percentage of services (by dollars or by number of units serviced) to which you can apply one of the above approaches, and the assumed percentage of pricing reduction. You can then apply this percentage to the applicable current dollar spend by service type, facility, or enterprise-wide.

Geospatial Analytics Service InSite™ enables facility owners to apply a consistent process and standard for making decisions to engage with services providers, as an alternative to ad hoc decision making based on criteria that may not be quantifiable. Using definitions of service attributes (e.g., cost types, delivery times, and performance measures) and the track record of services providers used, the tool enables objective decision making based on enterprise-wide standards.

To calculate these savings, estimate the percentage of services (by dollars or numbers of units serviced) for which you can engage with service providers using more objective criteria, along with the assumed percentage of cost reduction. You can then apply this percentage to the applicable current dollar spend by service type, facility, or enterprise-wide.

- **Reduced Total Cost of Asset Ownership by Optimizing Services**

Geospatial Analytics Service InSite™ enables facility owners to optimize asset servicing-vs.-replacing decisions across asset types, individual facilities, and corporate portfolios. By transforming data into business intelligence on asset condition and service provider value-add, sophisticated analytics can improve processes. For instance, preventative maintenance services can be reduced for assets with very low operational risk. As a result, the tool helps facility owners minimize the total cost of asset ownership — including acquisition and operation, maintenance, repair, and other services, as well as disposal of their assets.

- **Geospatial Analytics Inspection InSite™**

To estimate cost savings due to enhanced risk management, you can select a critical function such as call center, data center, or critical manufacturing assembly line. Then assume that increasing the frequency and/or quality of service avoids an outage of this function for some period typical of a critical equipment failure. You can estimate the outage cost of that failure using past cost data you have gathered or by other measure, such as loss of sales.

- **Improved Risk Management**

Geospatial Analytics Service InSite™ enables facility owners to perform risk management analysis. Risk is the product of the probability of an occurrence and the impact of the occurrence. Your risk tolerance is likely to vary from service type to service type, and from one type of asset service to another.

For example, if the probability of failure of a specific type and age of HVAC systems is constant, but the impact of this HVAC failure in your data center is much greater than the impact of the HVAC failure in your office or warehouse, then the risk is higher for the data center HVAC system. Therefore, with a limited budget, you would prioritize a higher frequency of servicing for the HVAC system serving the data center (to avoid a failure) than for the warehouse HVAC system. While the decision in this example is straightforward, it is a much more complex exercise when dealing with a wide range of service types for tens of thousands of assets that support hundreds of different facilities. Sophisticated analytics are needed to evaluate the data and help form an optimized budget that maximizes the value creation within limited financial constraints. Geospatial Analytics Service InSite™ enables you to make these and other critical evaluations based on service provider, asset data, and a risk-informed process.

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- **Enterprise Service Management and Value Creation**

A growing number of enterprises are discovering the value of an enterprise service management program. By creating a strategic approach to services, facility managers can reduce cost and risk. Many companies have experienced 3-6% savings to their budget within the first year of implementing a program. The program will continue to yield benefit year-over-year, and will be a significant driver of value creation for your organization. the first year of implementing a program. The program will continue to yield benefit year over year and will be a significant driver of value creation for your organization.

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