Operations Management for Local Government:

REDUCING COSTS, IMPROVING SERVICE, PRESERVING ASSETS

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Reducing Costs, Improving Service, Preserving Assets

Local governments face increasing pressure to deliver services that meet the constantly evolving demands of citizens. Yet, many are falling behind due to limited budgets, growing requirements, declines in staff resources, aging technology, and outdated operations management methods.

Challenges for public sector agencies:

- Lower tax revenues and ongoing fiscal difficulties that lead to shrinking budgets
- Outdated legacy IT solutions that waste time and resources while impeding communication
- Frustrated citizens that demand better
- Siloed work and asset information that hampers productivity

This has been an ongoing challenge in the public sector, especially with asset-intensive public agencies that manage utilities, transportation, water, sewage, and more. For example, the American Association of State Highways and Transportation Officials (AASHTO) believes, the "current methods of transportation infrastructure management are inadequate to meet the demands of American citizens and industry," as mentioned in its Transportation Asset Management Guide.

The reason is that the AASHTO and other asset-intensive public agencies need to effectively track, assess, and manage a wide range of physical, technological, and human assets. They must hire and schedule employees, repair machinery, deploy and manage technology resources, maintain physical plants, and more. To make matters worse, technology infrastructures are often highly complicated and run data in silos, limiting the ability to make informed decisions, maintain compliance, and streamline operations across departments. Plus, public agencies must contend with aging physical assets such as power plants, sewer systems, and electronic devices that require ongoing maintenance and repair.

One of the biggest challenges for asset-intensive government agencies—if not the biggest challenge—is to manage these different types of assets effectively and efficiently. The traditional management methods—based on managing assets through data silos, reactive asset maintenance, paper record keeping, etc.—are no longer adequate in meeting the demands of today's public sector agencies.

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What is operations management?

Academically speaking, operations management for local government is a set of integrated, multidisciplinary strategies for maintaining, upgrading, and expanding physical assets effectively throughout their life cycles.

The fundamental goal of operations management strategies and their supporting technologies is to preserve and extend the service life of assets, and streamline the management processes of those assets. This is accomplished by intervening at strategic points in an asset's normal life cycle in order to improve its current performance and extend its expected service life.

The 3 key principles of operations management:

1. **Recognize the economic value of your assets.**
2. **Optimize the money being invested in each asset over its life cycle.**
3. **Collaborate as an organization to ensure public assets are functional and safe.**

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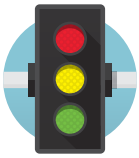
What is operations management? (continued)

The benefits of operations management:

A sound operations management strategy helps local governments become more effective, more efficient, and more productive for their citizens. As a result, these high-performance governments can improve utilization and performance, reduce capital and operating costs, extend asset life, and improve return on investment.

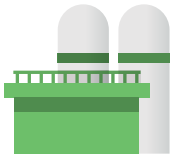
Transportation



Signals

Parks & Rec

Walkability



Facilities

Sanitary Sewer

Storm Water

Water Distribution

Flood Control

For instance, in the public transportation sector, operations management offers a more comprehensive approach to traditional management practices of examining individual systems of road networks such as pavement, bridges, etc. It takes into account the entire system of roads and its components in order to manage all related resources.

One of the top benefits of operations management is significant cost savings. The U.S. Environmental Protection Agency estimated that improved asset management can result in savings of at least 20 percent of the costs of asset ownership. Plus, according to the Organization for European Cooperation and Development Working Group, Asset Management, "Through proper asset management, governments can improve program and infrastructure quality, increase information accessibility and use, enhance and sharpen decision-making, make more effective investments, and decrease overall costs, including the social and economic impacts of road crashes."

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Why is operations management so effective for governments?

As we've seen, operations management is particularly effective for government agencies that manage a large number of physical, technological and personnel assets. There are numerous reasons for this:

1

Defines and documents long-term goals

Public sector agencies that seek positive change need to challenge their organizational processes through a systematic analysis of what is working well, what needs improvement, and how these areas relate to the agency's mission and goals. An operations management plan can define goals, objectives, strategies, and specific assignments for the organization.

2

Aligns leadership within the organization

Operations management not only assists in the decision-making process, but it also enables fact-based dialogue between state government officials, managers, employees, contractors, and more. By establishing clear goals, an agency establishes a well-defined path of progress for its leaders.

3

Facilitates informed, data-driven decisions

In order to manage the full asset life cycle, high-performance governments need greater visibility of their numerous assets. Smart operations management is powered by up-to-date, accurate data that reveals exactly what assets an agency has and where they're located. This data helps outline all assets and consolidate and analyze essential information about them, which is crucial to making good decisions and implementing a productive operations management strategy. The financial elements of operational data are also helpful for complying with regulatory requirements such as GASB 34, which requires reporting of asset ownership costs.

4

Integrates departments, initiatives, and budgets

Local government agencies often have multiple departments that use separate systems to manage their assets, which results in a complex, multi-layered, inefficient system. A successful operations management approach will seamlessly integrate with other systems and share data in real time. This helps to maintain assets, deliver services, and improve the overall performance of an agency.

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Why is operations management so effective for governments? (continued)

5

Provides modern tools for creating benchmarks and measuring outcomes

A successful operations management system provides self-assessment tools that allow an agency to set benchmarks for sound asset management. It also provides the ability for agencies to assess and measure outcomes that meet the goals and objectives set forth.

6

Promotes long-term operational improvement and system integrity

Greater insight and attention to system-wide assets and their conditions can reduce unexpected failures and repairs of physical assets, and minimize lawsuits and negative feedback from the public. Plus, operations management helps organizations continually improve with access to the most reliable, real-time data available. This also promotes the concept of "sustainable infrastructure" that has been suggested to address the visible problems in many American cities where sufficient re-investment in infrastructure has not been made.

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How to choose the right operations management solution

While there are numerous operations management solutions available on the market today, it's important to find a solution that will fit a number of different criteria, including:

USER-CENTRIC DESIGN

When choosing an operations management system, consider the ease of use and intuitiveness of its design. A clean and simple interface enables workers to concentrate on the task at hand, rather than trying to muddle their way through inefficient software that makes tasks more difficult to manage and complete.

MOBILITY

The operations management system you choose needs to provide optimal power and functionality for the mobile workforce. Look for a system that performs as well, or better, on a mobile device as it does in the office. That way, no matter where the asset is located, your mobile workforce has everything it needs to access and complete work accurately and on time.

DATA ORGANIZATION

Does the system make it easy to input, view, and find data? If not, look elsewhere. Quick, easy access to well-organized data, such as a particular asset's work and inspection history, helps your team to make well-informed decisions when performing their work in the office or on the go.

ADAPTABILITY

Identify your technology needs today and consider how those needs might evolve in the future. Use that knowledge to choose technology that has the ability to expand and grow with the needs of your community and the operations that service it.

INTEGRATION

It takes more than one system to keep an organization running efficiently. Operations management is the place where all those enterprise systems connect. The right system integrates easily with everything from your fuel management system to your 311 request platform, and will share data with them in real time.

CROSS FUNCTIONAL

Any operations management system must be able to meet the needs of multiple departments and areas of your organization. Organization-wide thinking—along with the communication and collaboration that makes it successful—isn't possible using a system that creates data silos. Productivity and decision making improve when every user has access to the best data available.

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Why now is the time for operations management

Shrinking budgets, pressures to cut public spending, aging infrastructure, and a retiring workforce are some of the pressures local governments face. Yet, when individual departments use separate systems to manage assets, the results are often increased complexity and inefficient operations. Plus, separate systems make it difficult—if not impossible—to comply with recognized industry standards like the Governmental Accounting Standards Board (GASB) Statement Numbers 34 and 42.

In order to meet responsibilities, achieve goals, and exceed citizen expectations, local governments need to improve internal operations, achieve economies of scale across numerous departments, and create greater efficiencies that free up resources. Operations management solutions empower high-performance governments to tackle industry challenges through a comprehensive approach to managing all assets, which improves department efficiency and streamlines day-to-day operations.

While there are numerous reasons why local governments should consider adopting an operations management solution, the following are some of the top reasons:

1

New technologies are transformative

Government agencies continue to work under legacy IT solutions and business processes, which are insufficient in responding to modern challenges and expectations. These systems typically confine useful data in silos, making it challenging for field professionals outside the immediate department to access and use. This limits communication and productivity, since the successful use of data through analytics and reporting has become a powerful and often essential component of operations management today.

2

Government accountability

Public skepticism of government, combined with an increasing preference for using private-sector management approaches in the public sector, has led to demands that government find ways to be more transparent, accountable, and open to the operational practices that have proven successful in private business.

3

Workforce transition

As government workers retire and are replaced with a younger workforce, this transition creates significant challenges for local governments. They risk losing practical and organization-wide knowledge, which includes information about asset management and operating history. Each department should have the capability to capture knowledge and asset management best practices from experienced employees and use them as work processes. Plus, younger workers often expect to have technology-supported information and workflows established so they can more easily transition to a new system.

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Now You Know

Local governments serve the public, so it is their inherent responsibility to operate optimally and efficiently in order to serve the interests of the people. Operations management creates enormous value due to asset tracking, automating the scheduling of work processes, reducing reactive maintenance, enabling inspections, and extending the useful life of assets. From roadways and sewer plants to fire hydrants and traffic lights, operations management empowers government to manage assets effectively, operate more efficiently, lower labor costs, improve morale and, most importantly, create the best possible outcomes for their citizens.

Every asset. Every department.

Cartegraph OMS is a user-centric, Esri-enabled operations management system designed especially for local governments. It is used to manage assets and infrastructure in direct tandem with the work, requests, and resources necessary to maintain and sustain them. Its rich toolset enables users to capture, access, and analyze exceptionally detailed asset data—such as maintenance history, inspection information, and predicted asset health—from the office and the field.

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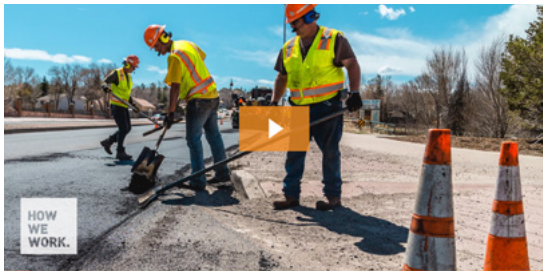

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ABOUT CARTEGRAPH

Cartegraph is in the business of building high-performance government. They offer software solutions that help local government agencies manage their physical assets and associated operations. With Cartegraph, users optimize the life of their infrastructure, deploy maintenance resources efficiently, and increase productivity.

To build high-performance governments, Cartegraph uses a comprehensive, three-pronged approach that combines success coaching, expert consulting, and state-of-the-art software solutions for asset, work, and resource management to help agencies capture data, analyze it, and prepare for the future. For more information, visit cartegraph.com.

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