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Looking at analytics for cost takeout

IBM solutions for the federal government

The need for analytics to take out costs

It is projected that the US federal government will accumulate more than \$7,000,000,000,000 in new debt by 2019. As a result, the president and congressional leaders have called for agencies to rein in spending and become more efficient at the same time. In short, agencies and departments are being called upon to do more with less.

Analytics offer relief from growing debt, massive data expansion and operational inefficiencies. With government under tremendous pressure to reduce costs, appropriately applying business analytics can help your organization use real data to gain greater insight and guide the process of making hard funding decisions. Agency staff can use modeling, simulation and other data-driven approaches to make decisions that both save money and improve mission performance. For example, one government service has modeled and optimized its transportation network to increase utilization of assets while cutting costs.

Analytics can also help streamline and optimize programs, reducing the costs of implementation while improving service to citizens. For example, the Social Security Administration has used analytics to streamline its processing of disability claims and can now expedite them with little risk of paying unacceptable ones.

It's time to consider the role analytics can play in your agency's mandates to reduce costs and optimize efficiency for cost takeout.



Analytics success: A national postal service

In 2006, a federal government accountability office mandated that a national postal service implement an ongoing measurement approach that would measure and improve delivery performance. With an IBM business analytics solution and help from IBM Global Business Services®, the national postal service now uses a hybrid modeling approach to test and measure its delivery service for performance improvement. For example, 19 years ago, the on-time delivery of premium deliverables was 50 - 80 percent for different geographical divisions. Now performance is much more consistent, and much higher: 92 - 96 percent. When compared to a fully external measurement approach that would have to aggregate widely variant processes, the hybrid modeling approach can save tens of millions of dollars per year.²

New and different ways of looking at data

Imagine anticipating the peaks and valleys in demand for services to close potential gaps in resources. Envision projecting call center utilization to help reduce wait times. On the financial side, imagine uncovering fraudulent Medicare claims before they are paid out—or even modeling claims processing systems to discover more efficient ways of handling claims. On the personnel side, picture reducing costs and improving service quality by prioritizing workloads, allocating program resources more efficiently and introducing a less intrusive process for reviewing performance. On the logistics side, think of the possibilities of being able to monitor traffic volume: you can increase inventory accuracy, improve space utilization and optimize order fulfillment rates. Regardless of your functional expertise or job requirement, analytics solutions can help you work better and your agency or department succeed.

With analytics solutions, your agency or department can sort through all kinds of data to identify potentially anomalous behavior from the past, such as fraudulent claims or improper payments. You can monitor data in real time, which can help you take action in the present to prevent past problems from developing. For example, in the case of medical billing, continuous monitoring can help you identify claims for medically unnecessary services, duplicate invoices, and claims for deceased individuals before you make any payments. Continuous-monitoring solutions search for emerging issues and provide mission-critical alerts based on real-time analysis.

Analytics solutions also provide data, trend and "what-if" analysis that help you identify patterns and outliers and make predictions about potential future events. As a result, your agency can, for example, forecast the number of improper medical insurance claims that might be filed, recognize financial institution transactions that might be money laundering and estimate the likelihood that a loan will default.

As you can see, analytics can play a major role in initiatives for cost takeout. So, after you've decided to adopt analytics solutions, the next step is to get started.

Getting started with analytics

The benefits of analytics can be substantial with a wide reach. There are a number of places to start: with data, a business process or technology, such as a dashboard or software package, and many more. To identify your starting point, return to the fundamental reason you want to use analytics in the first place and determine the critical questions you need answered with accuracy and confidence. Then, assess your analytics sophistication. How are you currently managing your information? What analytics skills and tools do you currently have in place? And, finally, focus on how you can improve

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information management and analytics to eliminate waste, cut costs and improve mission performance, all critical components of a cost takeout initiative.

After you have identified what you need in the way of analytics, evaluate various solution options, using the analytics needs and the data availability you identified to help you select the most appropriate analytics approach. These key questions can help you narrow your alternatives:

- Who are your stakeholders and project sponsors?
- What is your end-state vision? How would you like to achieve it?
- What are your milestones, budget, and resource requirements?

Use all these points to create a roadmap for adopting analytics. If you are still unsure about how to go about this, IBM can help. We can get you started with a business analytics and optimization jumpstart. IBM even has an Analytics Solution Center in Washington, DC, that is dedicated to helping public sector agencies and the US federal government use analytics to solve their business and mission challenges.

Why IBM?

IBM offers a broad and deep range of hardware, software and services for analytics. In fact, IBM has invested more than \$15,000,000,000 in analytics acquisitions to build a complete software infrastructure that complements all of our development, and IBM Global Business Services has created a completely new service line called Business Analytics and Optimization. This service line has thousands of practitioners that can help clients with their analytics initiatives. In addition, IBM solutions are backed by:

- Impeccable research. IBM has 150 Ph.D. mathematicians and researchers dedicated to finding new approaches and refining current ways of using analytics to solve the unique problems of IBM clients.
- Cutting edge technology. IBM has been first in application
 for patents for 19 straight years. In addition, the performance
 of IBM Watson on *Jeopardy!* demonstrated the results of our
 research leadership and how we put our technology to work
 to take data and analytics to the next level.
- IBM Analytics Solution Center in Washington, DC. One
 of IBM's networks of analytics centers for the public sector
 is available to the US federal government right where it
 operates.
- **IBM's own experience**. IBM has used analytics to save billions of dollars in annual operating costs.
- Industry recognition. Recently, IBM was a rated a "Strong Positive," the highest rating possible, in the Gartner MarketScope for Business Intelligence and Information Management in North America.³

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IBM has a number of services and solutions that can help you implement the right set of analytics for your agency's unique needs. These services and solutions include:

- Single view and identity solutions. Reconcile records from different databases and related agencies to resolve identities and relationships for a single, trusted view of persons and activities of interest.
- Case management. Digitize, automate and streamline your agency's paperwork, forms and processes to reduce costs and optimize case outcomes.
- Threat and fraud analytics. Analyze agency data for patterns and anomalies to identify fraud and improper payments, including fraudulent flood insurance claims or improper social security benefits. Or, identify potential threats from suspicious shipments, terrorists and more.
- Big data management. Collect, manage, analyze and disseminate Internet-scale volumes of structured and unstructured data, in motion or at rest, to exploit new data sources (for example sensors, social networking) and integrate disparate information (such as weather, econometric data, demographics) for analysis to improve forecasting and large-scale planning and response.

IBM can also be a trusted partner who can guide your agency or department through the process of adopting analytics solutions. IBM has helped clients from all over the world reap the benefits of analytics. Here are a few examples:

- A US government agency has saved more than \$247,000,000 using an IBM business analytics solution to track accounts receivable to reduce interest and penalties incurred by paying vendors late.
- A government organization that is part of the US armed forces saved \$500,000 and significantly lowered their reorder rate for unnecessary parts by automating an important requisition status report with an IBM business analytics solution and linking it to a private sector delivery company for real-time delivery status information.
- An IBM business analytics solution is helping a major US department identify available funding for departments, reallocate funds to support mission-critical objectives and reduce operational expense of reimbursable agreements.
- Another major US agency is using an IBM business analytics solution to track the full and unit costs of activities and outputs by location and program, facilitate evaluation of agency performance of strategic goals and enable operational managers to identify opportunities for improvement.

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The Analytics Solution Center

The IBM Analytics Solution Center (ASC), located at the Institute for Electronic Government in Washington, DC, is part of a network of global analytics centers that helps public sector clients use analytics to improve mission performance. The ASC is available to show federal government agencies, departments and organizations how analytics can help solve their business and mission problems. The ASC includes experts in areas such as healthcare, transportation, social services, public safety, regulatory systems, customs and border management, defense, logistics, cyber security and education, and it offers thought leadership events, demonstrations, collaboration and support to help agencies use analytics for cost takeout and other performance and mission initiatives.

Conclusion

Smarter decision-making is more important than ever for federal agencies, departments and organizations. Today's federal reality is driving a new work environment that increasingly uses analytics to address cost takeout and improve performance and mission effectiveness. Analytics have the potential to take significant costs out of your agency's budget by helping reduce waste, eliminating improper payments and fraud and increasing efficiency.

IBM provides analytic computing capabilities for private and public sector organizations. Currently, IBM is using analytics to help federal customers get their high volume of digital data under control, apply the information effectively and make effective decisions about distributing government resources,

such as the proper targeting of payments and service coverage. With IBM analytics services and solutions, your agency can predict with confidence and move from "seeing yesterday" to "seeing today and tomorrow."

For more information

To learn more about the IBM analytics solutions and services for the federal government, please contact your IBM marketing representative or IBM Business Partner, or visit the following website: ibm.com/federal/cto

To download an IBM Institute for Business Value Open Government white paper, a Partnership for Public Service analytics study, a Cost Take Out webinar and videos, visit: ibm.com/federal/cto

Request a meeting with our IBM experts at the Analytics Solution Center in Washington, DC. Sign up by visiting ibm.com/federal and clicking Analytics Solution Center

Download a paper on the value of decisions powered by analytics

Additionally, IBM Global Financing can help you acquire the IT solutions that your business needs in the most cost-effective and strategic way possible. We'll partner with credit-qualified clients to customize an IT financing solution to suit your business goals, enable effective cash management, and improve your total cost of ownership. IBM Global Financing is your smartest choice to fund critical IT investments and propel your business forward. For more information, visit: ibm.com/financing



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- ¹ "National Debt Facts." By James D. Agresti. Just Facts, April 26, 2011. Updated 12/23/11. http://www.justfacts.com/nationaldebt.asp
- ² The references in this paper are based on real IBM experiences with real IBM clients; however, actual results will vary from client to client.
- ³ Gartner Research note: "Marketscope for Business Intelligence and Information Management Services in North America"—Alex Soejarto, Susanne Matson and Neil Chandler, Nov 18, 2011 G00219672.
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