

Cost Take-Out Strategy for Department of Defense Operations and Maintenance

How to Reduce IT Costs Using Solutions for Lean Data Management

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Executive Summary

The U.S. Department of Defense faces a challenge to its capabilities across the board: the need to cut costs without threatening operational efficiency. Operating in a cost-constrained environment while still minimizing mission impact, defense agencies must now move beyond efficiency initiatives to embrace a comprehensive strategy for sustainable and drastic cost take-out. It is time to look across the entire IT portfolio, including budget items previously considered off-limits.

Until now, cost-cutting initiatives have been targeted at obvious areas while overlooking some of the really big costs and drivers across the organization. For example, current IT budgets are largely consumed by sustaining legacy applications. In fact, the Government Accounting Office (GAO) estimates that operating and maintaining legacy or obsolete systems eats up roughly 70 percent of the federal government's annual \$82 billion IT spend. Yet cost savings plans largely overlook these costs.

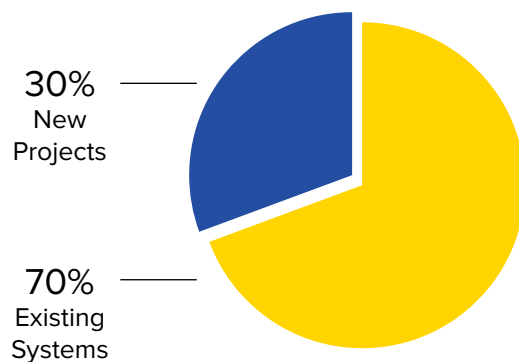


Figure 1: Federal government's IT budget allocation

Current cost-cutting methods aren't sustainable. They are tactical activities implemented to show immediate results or to meet looming mandates or budget scenarios. These tactics, including trimming investments in future systems, may reduce current costs, but they inhibit innovation—delaying the advancement of new systems, programs, and technologies. This approach not only jeopardizes the mission, but also may actually increase long-term costs.

Organizations should be developing sustainable, repeatable, and flexible cost take-out strategies that will enable them to bend the cost curve on operations and maintenance (O&M) costs to better support the mission, fund innovation, and promote agility, creativity, and best practices.

This white paper describes the components of a successful strategy that can result in sustainable, repeatable, and flexible savings across the enterprise, including the reduction of out-of-control O&M costs. It discusses the pervasive problems that plague IT organizations and introduces low-risk solutions that allow organizations to meet short-term cost savings objectives while creating a sustainable long-term balance of O&M and innovation.

Challenges of Current Federal Policies

Cost-Cutting vs. Cost Take-Out

What is the difference between cost-cutting and cost take-out? Cost-cutting measures, born of continuing resolutions, debt ceiling debates, sequestration orders, and other policy initiatives, tend to be broad-based, indiscriminate actions focused on the proverbial “low-hanging fruit.” They usually avoid tough decisions and “sacred cows,” and they’re rarely strategic or sustainable. Cost take-out strategies, on the other hand, are designed and implemented to be sustainable, repeatable, and flexible.

The Federal Data Center Consolidation Initiative (FDCCI)

The FDCCI was mandated with the premise of generating significant cost savings by closing and consolidating data centers—reducing the number of official data centers by half, to roughly 1,200. Unfortunately, a recent survey by public-private IT partnership MeriTalk¹ has revealed some disappointing results:

1. The number of official data centers is far greater than originally believed: almost 7,600.
2. Only 32 percent of responding agencies report achieving quantifiable savings by closing data centers.

As Navy CIO Terry Haverson has said, “We need to stop worrying about the number of data centers; it’s not the metrics that matters.”² The relevant question is how to optimize the data centers that we have and create long-term and sustainable cost models across the enterprise.

Sequestration

Sequestration is a cost-cutting program, but lacks the vision of sustainability. Unfortunately, as a result of how the sequester was applied, the Department of Defense is bearing the brunt. Defense Secretary Chuck Hagel described the DoD budget situation as problematic and unprecedented as a result of deep and abrupt spending cuts.

Furloughs

Furloughs are an immediate and drastic cost-cutting tactic that immediately trims money out the budget. However, it is not a sustainable strategy for the Department of Defense. The expenses for military personnel only consume about 25 percent of the overall budget—which is already a historical low. Our soldiers must be paid. While furloughs may be unavoidable in the short term, they cannot and should not be sustained.

Modernization Without Innovation

Upgrading or modernizing legacy systems is simply a way of kicking the proverbial can down the road and postponing innovation until later. Continuing to upgrade legacy systems merely for compliance or license support diverts critical resources from mission support and cutting-edge innovation.

¹ “The FDCCI Big Squeeze”, Meritalk.com, May 13, 2013, <http://www.meritalk.com/fdcci-big-squeeze.php>

² Kash, Wyatt. “Federal Data Center Closures No Panacea: Navy CIO” InformationWeek. July 15, 2013. <http://www.informationweek.com/tech-center/it-as-a-service/federal-data-center-closures-no-panacea/240158283>.

Opportunities for Cost Take-Out

As we necessarily move away from these ineffective cost-cutting tactics, organizations must adopt a long-term strategic plan for cost take-out, one that includes a new paradigm for determining where cost take-out can be applied. The O&M budget should be first on the list.

Current IT spending is like an iceberg: the O&M budget is mostly invisible below the water, but it makes up the vast majority of the total. In the current fiscal climate, the iceberg is shrinking. To stay afloat—reducing costs today and supporting the mission for the future—we must develop a strategy for containing and reducing the O&M budget in order to re-allocate those dollars to the mission. Our immediate targets must include legacy and obsolete systems, both the applications and the data associated with them. Government needs a clear, comprehensive view of the dramatic costs incurred by maintaining these systems.

Retiring Legacy Applications

Mega modernization and upgrade initiatives are taking longer than planned to implement or are significantly over budget, leaving little time or money to complete the job of retiring the old systems. This results in legacy applications running in parallel with the new applications. In addition to hardware and software maintenance costs for both environments, costly resources skills to maintain aging technology platforms drain IT budgets and keep O&M budgets maxed out. If half of the applications are redundant, this represents a major opportunity for cost take-out or reinvestment.

Additionally, many organizations have grossly underestimated the change management effort required to get workers acclimated to the new systems and willing to part with the legacy applications. Why are so many workers opposed to retiring the old systems? An industry research³ report indicates that users still want to access data. For one thing, they simply prefer the convenience of looking up information via familiar systems to the effort of learning new ones. Just as critically, some migrations to new systems fail to include entire legacy data sets, making it difficult for users who need that data to do their job. Data with assigned records retention schedules requires collaboration between stakeholders and compliance teams. Without a programmatic approach, application retirement projects can be significantly hampered.

Data Proliferation

Technology today is generating more data, structured and unstructured, than ever before. Every production application generates many copies of data; a single production system with 1 terabyte of data can easily require 6 terabytes of storage to accommodate all the copies necessary for uses such as patching, testing, QA, and standby development.

Managing and storing that data require a more powerful network with more storage space and more hardware—none of which is inexpensive. As data proliferates, agencies need a clear sense not just of how much data exists but also how fast the data is growing, what is driving its growth, and how many copies of the data exist. Agencies also need to consider how much data they need to store and archive, what technologies to use for storage, and how much is reasonable to spend to do so.

Tactical Data Sharing and Integration

Custom point solutions, system interfaces, data sharing requirements, integrating to analytics, and downstream reporting systems further expand data growth and increase the complexity of networks. And of course, the Department of Defense has uniquely complex requirements in terms of integration and analysis needed for immediate data availability and mission support.

³ Enterprise Strategy Group Research Report, Application Retirement Trends, October, 2011

Lean Data Management Strategies for Cost Take-Out

Delivering truly sustainable strategies of reducing costs in O&M budgets demands lean data management strategies.

Lean doesn't mean less, it means smarter. Lean doesn't mean less integration or slower integration, and it need not compromise the mission. Implementing lean strategies for applications, data, and the data center by re-allocating dollars from O&M to innovation and/or modernization actually allows us to free up dollars faster to support the mission sooner.

Lean data management can be implemented in any one of three strategies: (see Figure 2).

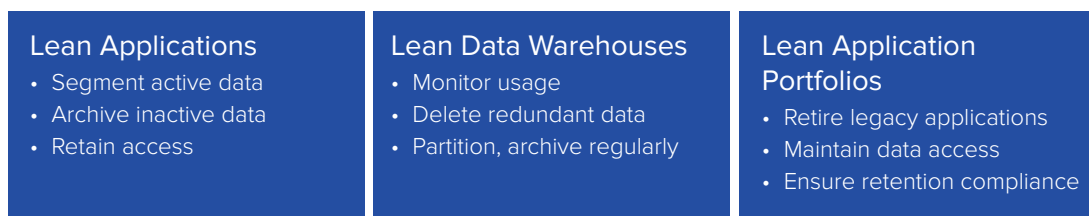


Figure 2: Lean data management strategies.

Lean Applications. A lean applications strategy targets the data within applications and highlights the data based on activity, criticality, and volume. Data that is most critical to the mission is placed on highly available redundant technology to ensure high availability. Inactive or rarely used data is taken out of production systems, test and development copies, and redundant backups and moved instead to a central archive. By clearing mission-critical systems of data that isn't necessary to support the mission, this approach significantly improves performance and optimizes costs.

Lean Data Warehouses. A lean data warehouse approach targets consolidation and replication of data from multiple sources into a single data warehouse for reporting and analytics. Many data warehouses become huge sinkholes for data—new data comes in, but none is ever removed. Lean techniques such as data partitioning, compression, and regular archiving, combined with a strong data governance policy, enable organizations to remove unnecessary costs from data warehouse environments.

Lean Application Portfolios. A lean application portfolio lets organizations attack one of the largest line items in the O&M budget by retiring legacy, obsolete, and redundant applications and archiving their data for the infrequent times it's necessary. This is a particularly hot topic for data center consolidation teams because it has so much potential impact on IT costs.

These three approaches work well together as part of a comprehensive O&M cost take-out strategy, but they can also be implemented individually to target more specific needs within an organization.

Informatica Solutions for Lean Data Management

Informatica offers a range of industry-leading solutions to help organizations implement lean data management for long-term cost savings.

Informatica Data Warehouse Advisor

Informatica® Data Warehouse Advisor monitors how business units and departments use data so that IT organizations can improve operational efficiency, scalability and performance, and control data delivery costs.

Business user activity is monitored so organizations can see how and by whom data is used in addition to monitoring activity from business intelligence (BI) tools, such as Microstrategy, SAP Business Objects, IBM Cognos, and Oracle BI. The software also monitors data utilization based on query volume as well as frequency and currency of access.

Informatica Data Warehouse Advisor measures data warehouse query performance by identifying the BI users and queries that drain data warehouse performance, and correlates user activity with data warehouse performance metrics. It also sets performance metric thresholds to detect workflow variances, and delivers notifications when problems and exceptions arise.

The software also monitors Informatica PowerCenter® workflow performance. It correlates PowerCenter workflow and data warehouse workloads so that PowerCenter workflows can be scheduled to run during lower data warehouse workloads, thus improving workflow performance, via a single console.

Informatica Data Archive

Informatica Data Archive manages data growth in big data warehouses by relocating data that Informatica Data Warehouse Advisor identifies as dormant. Informatica Data Archive is highly scalable, high performance software that helps IT organizations cost-effectively manage the proliferation of data volumes in a variety of enterprise applications.

The software enables IT teams to safely and easily archive structured data in databases, enterprise applications, and data warehouses and then readily access it when needed. With Informatica Data Archive, IT organizations can identify and move inactive data to another lower-cost data warehouse infrastructure or to a secure, highly compressed, immutable file. Easy access is maintained to the combined production and archived data from any reporting or BI tool.

By archiving the data to a highly compressed file that offers up to 98 percent compression, it also greatly reduces storage requirements. For data that is not eligible for archiving, yet could benefit from better database partitioning strategies to align with end-user access patterns and Lean data warehousing strategies, the Informatica Data Archive Smart Partitioning feature gives organizations the performance benefits of archiving without relocating data.

Informatica Data Subset

Informatica Data Subset is flexible enterprise software that automates the creation of smaller, targeted databases from large, complex databases. Integrated with the Informatica PowerCenter platform for built-in scalability, robustness, and enterprise-wide connectivity to access any non production database, the software supports creating subsets of all enterprise data regardless of database, platform, or location.

Each data subset is a referentially intact, compact production data copy that enables IT organizations to dramatically reduce the time, effort, and disk space necessary to support non production environments. By quickly replicating and refreshing production data with only the most relevant, realistic, high-quality application data, Informatica Data Subset eliminates the need to create a full database copy. The software helps untangle complex transactional systems and data warehouses, separating out functionally related data.

Informatica Solution for Application Retirement

The Informatica solution for application retirement manages the full lifecycle of content in database applications. The solution consists of the following products that meet the full requirements for an application retirement project:

- Informatica Data Archive
- The Informatica ILM Discovery Option
- The Informatica ILM Data Validation Option

Together, these products are designed to meet the challenges of application retirement by providing enhanced capabilities:

1. Discovery, classification, and extraction of business records
2. Validation of archived data
3. Easy, secure, standardized access to retired data
4. Efficient compression of data and implementation of tiered storage strategies
5. Compliance with data retention and privacy regulations

The Informatica Advantage

What makes Informatica solutions for Lean data management unique is the industry-leading Informatica Platform on which they're based. This comprehensive, open, unified, and economical platform delivers a one-stop shop for Lean data management and provides a comprehensive library of connectors to a wide range of applications and databases. Informatica has years of experience as a leader in the industry with validated customer satisfaction and loyalty ratings. That is the Informatica advantage.

Conclusion

In the face of current IT cost-cutting strategies that are endangering their missions and overall war-fighting abilities, defense agencies need a new approach to optimizing their budgets. Using Informatica's Lean data management solutions for applications, data, and data centers creates opportunities for sustainable, repeatable, and flexible savings across the organization. You can remove legacy data and applications from your production environment and decommission associated hardware and software while keeping the data accessible as needed and managed according to your data governance standards. This approach to data management eliminates the maintenance costs associated with outdated systems and infrequently accessed data, improves performance of mission-critical systems, and allows agencies to re-allocate resources for greater agility and innovation.

About Informatica

Informatica Corporation (Nasdaq:INFA) is the world's number one independent provider of data integration software. Organizations around the world rely on Informatica to realize their information potential and drive top business imperatives. Informatica Vibe, the industry's first and only embeddable virtual data machine (VDM), powers the unique "Map Once. Deploy Anywhere." capabilities of the Informatica Platform. Worldwide, over 5,000 enterprises depend on Informatica to fully leverage their information assets from devices to mobile to social to big data residing on-premise, in the Cloud and across social networks.



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