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Executive Summary

The federal government spends $100 billion a year on information technology to support over $2.9 trillion spent by federal programs. Over the past 15 years, there have been efforts to consolidate redundant IT projects, increase cross agency collaboration, and leverage sharing of IT solutions using commercial shared services models. In particular, the Office of Management and Budget and Federal Chief Information Officers Council have invested in tools to identify synergies and opportunities for multi-agency program improvements. These tools developed for IT improvements can be used by the Obama Administration to achieve much larger gains if applied in support of government-wide program planning and budgeting.

Over the past three decades, government programs have come to rely heavily on technology for efficient and effective operations. The recent attempts to eliminate redundant IT projects have had little success, primarily because IT redundancies are a result of overlapping and redundant government programs that are managed independently in separate government organizations. With the current economic uncertainties it is especially imperative to make sure the federal budget is being well-spent and directed to the proper places.

The federal government currently does policy planning and budgeting in isolation, focused program by program. Yet, today’s problems are not easily segmented to a single program or agency. Instead, today’s problems require the federal government to identify collaborative, innovative, and synergistic solutions that affect multiple programs, agencies, and state and local governments. A policy and budgeting framework that identifies the best government-wide options to address today’s problems is needed. Rather than relying on individual programs to develop solutions for pieces of a problem, there must be a way to look across agencies and programs and determine the best way forward. The Obama Administration needs a process for strategically linking human and financial resources to performance improvement.

This paper recommends a revised approach to budgeting government operations that achieves the benefits from collaboration, information sharing, and other applications of modern technology-enabled management approaches. Leading strategic planning practices and enterprise architecture analysis materials developed by federal IT offices can be used to map relationships between strategic goals, legislative actions, and the budget line items needed to drive desired outcomes. Although there are potentially significant policy gains and budgetary savings, the analytic and change management issues are intimidating. To this end, this paper recommends that a performance driven “strategy-planning-budgeting” process be implemented and suggests introduction of this new process soon – introduced by July 2009 for the FY2011 budget- in order yield maximum gains reflecting this Administration’s priorities.

The outcome of a new strategy, budget and performance alignment process will demonstrate how the federal budget process can be improved as well as how it can be used to cut costs and optimize government-service delivery. It will create greater transparency and can drive a better and more innovative government.
New Strategic-Performance Integrated Budget Process Needed

OVERVIEW

President-elect Obama has identified key strategic outcomes that it would like to achieve. A key early imperative for the Administration will be to rapidly understand and realign the budget to meet desired goals. Yet, the federal government budgeting process is so fragmented that assessing, coordinating or measuring investments made to achieve outcomes is extraordinarily difficult.

We are proposing the government adopt aspects of a number of the leading planning processes, including the use of collaborative tools, to integrate the strategy, investment and performance measurement aspects of all programs in key national strategy areas, for example, economic growth or health care. This paper proposes linking strategy, architecture, and performance data to improve the effectiveness of federal spending, and applying leading planning practices and collaborative tools to improve alignment between available resources and program needs. This paper recommends a cross-agency Strategic-Performance Driven Budget process with “strategic initiatives” included in the budget as a separate category. These strategic initiatives leverage investment in innovation and deployment of technology to achieve performance breakthroughs.

Large government-wide improvements can be made by the Obama Administration by coupling performance-based budgeting concepts (e.g. Kaplan and Norton.1,4,5,6,9,10) with data developed by federal IT organizations. Both industry and government have demonstrated improvements in planning and budgeting by taking advantage of strategic planning and enterprise architecture (EA) data and tools, with budget and performance extensions. In particular, EA is defined by Ross, Weil and Robertson from MIT as “the organizing logic for business processes and IT infrastructure, reflecting the integration and standardization requirements for the company’s operating model.” 18 An EA approach that looks at the federal government as an enterprise has been underway for many years and there is a significant amount of data which reflects the mission oriented perspective. Tying this EA data to the budget process using mission and performance outcomes permits the conceptualization, funding, and execution of innovation in the context of the whole enterprise.

UNDERSTANDING THE KEY ISSUE: MODERNIZING BUDGETING PROCESSES

Budget analysis and management is a major challenge for the federal government because of the size, scope, and complexity of the budget. As the Office of Management and Budget highlighted in its 2007 synopsis of the Budget Formulation and Execution Line Of Business initiative:
Hundreds of budget exercises are conducted annually without the benefit of electronic collaborative technologies.

Agency budget personnel spend a substantial amount of time entering and reconciling data and merging numbers into textual submissions and publications. This detracts from their ability to analyze issues and support decisions made.

In both industry and government, standard budget processes fail to adequately address both operational financial realities and the need for strategic change. Strategy, Performance and Budget typically are not aligned. As Jack Welch stated in his book, *Winning*, “Not to beat around the bush, but the budgeting process at most companies has to be the most ineffective practice in management.” This statement applies to government as well.

Budgeting approaches in both industry and government have a set of common problems. Budgeting is typically performed in isolation. This is compounded in the federal budget by its size and complexity. The federal budget is a tangle of information assembled around programs, each addressing a piece of what Americans expect government to address. The thousands of puzzle pieces of data provided in the budget make it difficult to understand and rarely possible to use as a critical working document. Further, each program’s budget is analyzed within an isolated “silO” without benefit of the “big picture” of policy and organization linkages.

Budgeting processes developed when there were not tools and technologies to help. As highlighted in the Budget Formulation and Execution Business Case, specific gaps in tools, information, and collaborative capabilities include:

- Automated and integrated tracking of budgets, performance data, and strategic plans including outcomes and cost structures,
- Facilities and tools that organize, retain, and retrieve information and enable collaborative problem solving using basic costing factors, scenarios, and formulae for "what-if" analysis and modeling,
- Tools (such as goal seeking, business rules, business and data architecture, and collaboration suites) to disseminate information and drive optimal use of available resources across government organizations.

Strategy, architecture, and performance plans need to be integrated with budgeting in a comprehensive approach. While strategic and operational planning require different approaches, these approaches can and must be integrated, aligned and synchronized to assure desired outcomes. Today’s more flexible analysis tools, along with a collaborative environment are needed to facilitate such integration.

In industry, there have been efforts to align strategy within strategic themes and create a process for aligning these strategic themes with operational activities. These budgets include Operational Expenses (OpEX), Capital Expenses (CapEX) and Strategic Expenses (StratEX) as key areas needed to support and advance the strategic initiatives of the organization. The government currently has many improvement initiatives that are included within operational or
capital expenses of individual programs. Because the budgeting process focuses on individual programs, there is little visibility into multi-agency strategic investments. Only a few high-profile program-specific initiatives are visible, such as the IRS modernization or Air Traffic Control Modernization. Opportunities for government-wide improvements are identified within the IT budget analysis for “lines of business” of the federal government. These improvements are connected to related EA and segment architectures, as well as the associated business cases. Also, agencies have strategic plans and measurement programs. However, these exist in isolation. The connections across activities are not clearly defined, and there is no organization for rationalizing budgets to address problems or take advantage of opportunities across individual programs.

The current approach has other significant negative implications:

- Understanding of operational drivers gets lost. The budget often is separate from the delivery of services.
  - *Industry addresses this segregation with rolling forecasts.*

- Innovation gets lost as operations and capital investment rob funds from strategic change imperatives.
  - *Industry leaders have created separate Innovation Centers and Strategic Expense Funds to solve this issue. Industry leaders also have created strategy maps, balanced, scorecards, and tools that link and integrate information together for decision support.*

- Real transparency does not exist. The lack of clear mapping between strategic goals, legislative actions and budget line items obscures the breadth and depth of the government operations, how programs and funding fit together, interrelate and produce desired outcomes.
  - *Technologies exist to make the federal budget process visible to all the stakeholders. These tools provide new insight into options, trade-offs, and opportunities to leverage spending.*

**OPTIONS FOR IMPROVING BUDGETING**

Today’s problems require collaborative, synergistic and innovative solutions. The Budget Formulation and Execution Line of Business initiative has made progress in improving agency and program budgeting practices. However, progress is incremental as traditional silos and hierarchies constrain change. A new approach is required.

Leading practices, such as Strategy Maps, are used by well-managed companies to help businesses architect solutions and decide what actions to take to address problems. To successfully address today’s complex and interrelated problems the federal government should apply these leading practices. This approach will require processes and organization framework
for implementation. Leading practices and technologies used in strategy and budgeting can be applied once adapted to the government to address scale and use of policy versus monetary outcome metrics.

A strategy-performance driven budget includes strategy maps and balanced scorecards and integrates budget databases. It also establishes cross-mapping between policy, or “strategic themes”, and budget allocation across government by defining a common “tagging” related to strategic themes and organization elements. Strategic tagging will allow the search, discovery, analysis, and linking between elements throughout the budgeting process. This approach would provide a consistent cascading of changes throughout the government.

Transformation of the budget process must be based on facts and a systematic analysis process. Fortunately many of the basic elements to perform these activities exist today. A key building block is a comprehensive Strategic Plan that cuts across agencies for each policy or business area, such as Health, Economy or Energy. Each area focused Strategic Plan should contain the set of strategic themes and chain of events and dependencies that move from the current situation to the new vision. These specific Strategic Themes can then be tied to available resources and investments through Strategy Maps. Two activities are required. The first is an analysis of the current budget based on key strategic themes reflected in the EA and segment architectures. Then, this baseline material can be used in an analysis of the budget based on the new strategic themes and desired outcomes. The approach would encompass a reformulation that looks down and across the government budget. The budget represents a stream of actions that supports current operations, provides capital investment or supports a strategic imperative.

To achieve the desired linkage, tools will be needed. Many tools, such as the EA, already exist but are not currently associated with the budgeting process. A process must be created and organization roles, responsibilities, and accountabilities assigned. The budget can then begin to reflect the linkages that are missing today.

As Figure 1 below illustrates, the formulation of budgets should follow a cycle that fits into the Strategy-Performance Driven Budget Formulation and Execution Process.
In some areas, the government may need to adopt an approach used by industry: applying a rolling forecasting system to track on a periodic basis. Examples of areas where this approach would add value include Disaster Responses, War Situations, and Economic Recovery investments. Strategy-Performance and Budget visibility may require rolling short term forecasts as well as long term projections that allow the Executive Branch, Congress and the American Public to assess the same information. This can be done using today’s technology, coupled with data that exists at the Office of Management and Budgets and within programs.
Strategy maps, value maps, cause-effect diagrams support the alignment of the budget with policies and strategic policy-based themes and the tracing of strategy themes to outcomes and the success stories related to changes. A strategy map translates a policy or strategy into the combination of resources and metrics needed for implementation. The strategy maps can provide the basis for rationalizing budget requests by enabling assessment of the value of alternative mixes of operational, workforce, knowledge management, and capital investment activities. Further, the Obama Administration can take advantage of the existing enterprise architecture tools that have evolved in many agencies to develop themes, improvement objectives, performance metrics, and resource trade-offs. As described in Wikipedia:

“Though the intangible assets of an organization are the most powerful means by which to effect permanent change in the organization, the idea of strategy maps is to plan in a top down way -- start with the needs of the higher perspectives and work downwards to figure out what is needed at the level of the human, organization and information capital.
Often this perspective is labeled "Organization Capacity" or "Capacity Building" to indicate that it covers infrastructure as well as human capacities."

Not all programs will need to be rationalized using this framework. Rather, the areas of policy that are most pressing should create the initial focal points for developing a strategic mapping of available resources across programs to results needed by Americas. As highlighted by Kaplan and Norton; "objectives and targets will not be achieved simply because they have been identified; the organization must launch a set of action programs that will enable the targets for all measures to be achieved." For the federal government, these action programs are "strategic initiatives" that need to rationalize and leverage people, technology, process, and management capability investments in order to achieve performance targets.

For example, health care policy may look for improvements with prescription drug costs and improved use of medication to address diabetes, cancer, or heart problems. These programs can exist in separate appropriations that are connected through mapping. By examining the policies in this or any other policy area, there can be an alignment between the value of what exists today in this policy area and the impact (value) of an integrated approach (themes for improvement). Such mappings can act as a key step. However, it is not enough to understand how policies in areas such as prescription drugs and disease management fit together. It is also important to “connect the dots” between programs. The set of changes in operating expenses, capital investment or a strategic investment/expense have to be linked to performance outcomes.

Options for an Organization to Oversee Strategic Cross-Agency Initiatives: A Strategic Management Office, as Kaplan and Norton call it, or a Distributed Innovation and Enterprise Integration Group as Cash, Earl, and Morrison discuss is needed to effectively innovate and integrate the strategy-performance-budget process. The key factor is for a collaborative process be designed to foster innovation. Fighting the status quo is difficult. As Cash, Earl, and Morrison say, “Businesses are better at stifling innovation than at capitalizing on it, better at optimizing local operations that at integrating them for the good of the enterprise and its customers. The larger and more complex the organization, the stronger the status quo can be in repelling both innovation and integration.” The federal government is the largest and most complex organization. With an arcane budget process, status quo becomes a powerful force. It is possible that the Office of Management and Budget could become the Strategic Management Office, but this would require a strategic initiative to transform OMB.

Budget and Performance Transparency are Key Elements of the Solution: The budget process must be transparent and collaborative. It should be open to ideas coming from inside and outside of government. To do this will require taking the words from the many briefing books and putting them into strategic maps that direct change. For example, the briefing material such as those in “Change for America: Progressive Blueprint” or the specific Blueprints that are created for Health Care or other areas can be used to create action oriented maps linking sets of changes into portfolios of initiatives. The results of the process could be posted
internally for government wide-collaboration as well as supported on US Spending.gov for greater transparency. Using Web 2.0 to support collaboration and knowledge management, the government could solicit and share ideas from the public and from industry.

**A Common Core Budget Process:** The new approach to budgeting should incorporate a common core budget process. Each appropriation area can adapt and extend the core budget process based on their needs. To advance this concept, two activities are required. The first is an analysis of the current budget based on key strategic themes reflected in the EA and segment architectures. Then, this baseline material can be used in an analysis of the budget based on the new strategic themes and desired outcomes. The approach would encompass a reformulation that looks down and across the government budget. The budget represents a stream of actions that supports current operations, provides capital investment or supports a strategic imperative. Providing a set “track” for each budget item would enable linking the budget item from strategy to performance plan to architecture to implementation to results and outcome. A series of templates and standardized exchanges can support this process. Providing feedback and interactive response mechanisms would enable the budget process to be truly an interactive and collaborative process. A continuous budget and performance tracking system should be part of the vision for the future.

**VISION AND ROADMAP FOR REFORM**

Figure 3 below depicts the recommended approach to linking strategy development to strategic planning to architecture initiatives and budget initiatives. Characteristics of a Strategy-Performance Driven Budget include the following:

- The budget must be supported by a consistent and common set of high level forecasts.
- The budget must support a portfolio of investments.
- The approach must relate strategic, operational, and strategic investments to needs across agencies and programs.
We recommend that the Office of Management and Budget create an organization capability and processes to refine strategy and metrics, improve alignment of strategy and budgets, and rationalize budgets and resources across programs through identification and approval of cross agency strategic initiatives. A Strategy-Performance driven budget would incorporate the following components:

1. Policy-Strategy Formulation - Today this is in the form of the many briefing papers that exist from think-tanks, transition team members, and the set of senior political appointees working with the members of Senior Executive Service, and ideas from across the government work force. But these visions have to be translated into pragmatic policies and actions. Some recent pieces, such as “The Health Care Delivery System: A Blueprint for Reform,” by the Center for American Progress and Institute of Medicine, acknowledge that problem. Organizations fail to implement their strategies when they do not follow a well defined execution path.

2. Strategy Map - This is a visual representation of the cause-and-effect relationships among the components of the organization and the key strategic themes that will be changed and adapted to create the desired outcomes. There can be a series of interlocking strategy maps that cascade throughout agencies. They can be displayed,
discussed, and used as a graphical story that provides a line of sight to the implementers of the change. Strategy maps in business normally have a financial perspective, customer perspective, internal process perspective, and learning and growth perspective. The government perspectives will be different with financial becoming budget or fiduciary, customer becoming citizen or partner, and learning and growth becoming human capital. Additional perspectives for congressional, state, or local stakeholders can be added. The important element of the Strategy Maps is the process of alignment and making sure those intangible elements like training, culture, and involvement are thought through in the planning of any transformation. The strategy maps become one of the tools used in execution.

3. Balanced Scorecard - A government-specific performance scorecard, based on the strategic map and the defined perspectives could become a performance improvement, planning, and roadmap for change. This could track the strategic themes from the many “briefing books” to objectives, define clear responsibilities and accountabilities for actions, and establish outcome measures and trend indicators. The scorecard must be linked to the desired outcome or “target condition” that the strategy wants. The target is a new approach to supporting the mission with improved performance. This Balanced Scorecard can be aligned with the enterprise architecture and segment architecture within the agencies. The Scorecard can be linked to key elements from other agencies and that share common services delivered by other parts of the government. Scorecards can be the foundation for a key tracking and overall governance and priority system.

4. EA and segment architecture - These depict the current state of the business/mission and a target state, along with a sequencing plan to span from today to the desired future. Very few Government organizations have a performance improvement plan that is based on the perspectives of a scorecard. Mapping goals to questions that arise during tracking is critical to making changes actionable. More sophisticated strategy maps can evolve based on this action.

5. Shared Services - The scorecards and strategy maps need to factor in the interdependencies between agencies. The insight gained from integrating the strategic elements illuminates overlaps, conflicts, and gaps that cause a disconnection. The disciplined process will then cause revisions in architectures, creating new strategic initiatives and other budget revisions.

6. Strategic Initiative Business Cases – Here changes mapped from a strategic theme to desired outcomes in a series of small but rapidly developed steps, are chained together. Strategic business cases are the investments that are needed to make the changes. For example, they may be the investments needed in health care information exchanges or skills development related to health care delivery program offices that operate separately at the Departments of Health and Human Services, Veterans Affairs, and Homeland Security. Investments such as training are often hidden in the budget process and not linked to the strategic themes and the scorecard. The outcome is that these expenses
are orphans in the budget and orphan expenses are often dropped out of the individual program budgets as importance is understated since the government lacks visibility and the mechanism for leverage. In the government the focus is often on the next congressional hearing or the next project based on a good “point solution,” but not tied to a higher level policy-strategy map.

7. Collaborative Tools - Strategic Investments can be grouped into portfolios where common needs and collaborative tools can be identified and created and used by many.

8. Operational Expense models – These often assume business as usual, but in this new approach can be linked to how they will look with strategic initiatives. Linking and forecasting based on strategic expenses may show, for example, more or less resources will be needed, resulting in strategic expenses that shift the operating model. This is especially important in entitlement program projects such as food stamps, Medicare, Medicaid and Social Security.

9. Capital Expense – This will be aligned with the strategic expenses and the operational expenses and reflect the impact on building an infrastructure needed to support both.

CONCLUSION

With government transformation a top priority, a plan that links strategy to investments to performance and creates a roadmap to improved government outcomes is critical. Adapting industry best practices to existing government practices will take experimentation. We recommend beginning a pilot in one strategic area such as Health Care. By referencing the Strategic Blueprint "The Health Care Delivery System: A Blueprint for Reform", Strategy Maps and Scorecards can be created and interfaced with the existing budget systems. This will reveal recommended specific enhancements to the Federal Segment Architecture Methodology and the approach required to link the budget, architecture, capital investment, and performance information into an integrated view that ties to strategic changes and addresses the complete budget process.
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ACKNOWLEDGEMENTS

Writing Team
John Dodd, CSC
Michael Dunham, Keane
David Epperly, EAWerks
Michael Tiemann, FEAC Institute

Transition Study Group Leadership
Mark Forman (Chair), KPMG
Roger Baker (Vice Chair)
Mary Ellen Condon, Booz Allen Hamilton
Judy Douglas, EDS, an HP Company
Dee Lee, Compusearch
Brien Lorenze, Deloitte
Leslie Steele, InterImage

ACT-IAC Staff
Kenneth Allen
Sarah Lindenau