

TechAmerica's Twentieth Annual Survey of Federal Chief Information Officers

MARCH 2010

TechAmerica
WHERE THE FUTURE BEGINS
THE ASSOCIATION OF COMPANIES DRIVING INNOVATION WORLDWIDE

 Grant Thornton

TRANSPARENCY AND TRANSFORMATION THROUGH TECHNOLOGY

Table of contents

Executive summary	1
Survey methodology	2
Transparency and transformation through technology	3
Benefits of transparency	3
IT approaches to transparency	3
Opportunities and barriers	5
Key CIO challenges	7
Cybersecurity	7
IT infrastructure	9
IT workforce	12
IT management	13
Efficiency and effectiveness	14
Performance management and accountability	15
Acquisition	16
Effect of the Recovery Act	17
State of the CIO survey	18
Time in office	18
Barriers to progress	18
Value of IT initiatives	18
Observations from industry	20
Appendices	23
Appendix A: Participating Federal IT officials	23
Appendix B: Industry participation in report preparation	24

About TechAmerica

TechAmerica is the leading voice for the U.S. technology industry, which is the driving force behind productivity growth and jobs creation in the United States and the foundation of the global innovation economy. Representing approximately 1,200 member companies of all sizes from the public and commercial sectors of the economy, it is the industry's largest advocacy organization and is dedicated to helping members' top and bottom lines. It is also the technology industry's only grassroots-to-global advocacy network, with offices in state capitals around the United States, Washington, D.C., Europe (Brussels) and Asia (Beijing). TechAmerica was formed by the merger of AeA (formerly the American Electronics Association), the Cyber Security Industry Alliance (CSIA), the Information Technology Association of America (ITAA) and the Government Electronics & Information Technology Association (GEIA). Learn more at www.techamerica.org.

About Grant Thornton LLP

The people in the independent firms of Grant Thornton International Ltd provide personalized attention and the highest quality service to public and private clients in more than 100 countries. Grant Thornton LLP is the U.S. member firm of Grant Thornton International Ltd, one of the six global audit, tax and advisory organizations. Grant Thornton International Ltd and its member firms are not a worldwide partnership, as each member firm is a separate and distinct legal entity.

Grant Thornton LLP's Global Public Sector, based in Alexandria, Virginia, is a global management consulting business with the mission of providing responsive and innovative financial, performance management and systems solutions to governments and international organizations. We have provided comprehensive, cutting-edge solutions to the most challenging business issues facing government organizations. Our in-depth understanding of government operations and guiding legislation represents a distinct benefit to our clients. Many of our professionals have previous civilian and military public sector experience and understand the operating environment of government. Visit Grant Thornton's Global Public Sector at www.grantthornton.com/publicsector.

Executive summary

As we release TechAmerica's Twentieth Annual Survey of Federal Chief Information Officers (CIO), President Obama's administration has just entered its second year and its priorities, strategies and initiatives are starting to take shape. An important focus of the new administration has been to create a more open government, one that is more transparent, participatory and collaborative. Federal CIOs and the information technology (IT) resources they manage are expected to make a significant contribution to achieving open government. The CIOs are excited about playing a key role in fundamentally changing how the federal government and its constituents interact through the use of information technology. They think that broadening public participation and involvement in government will create greater trust in government, increase the value that citizens receive from government and unleash innovation with respect to governing and government services.

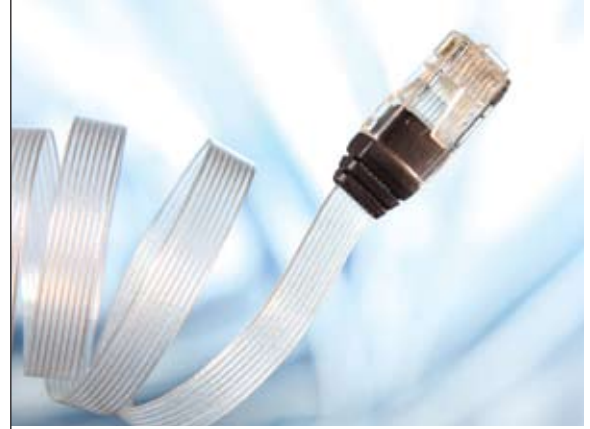
In support of open, transparent government, we found CIOs taking actions in two distinct areas. They are providing *access to information* through projects like Data.gov, USASpending.gov, Recovery.gov and the Federal IT Dashboard. And they are increasing *collaboration and participation* through social media, Web 2.0 and Government 2.0, blogs, wikis, Twitter, FaceBook, public dialogues and next-generation Web applications.

Looking ahead, CIOs see the following long-term challenges, ranked in order of priority:

1. Cybersecurity
2. IT infrastructure
3. IT workforce
4. IT management
5. Efficiency and effectiveness
6. Performance management and accountability
7. Acquisition

Our survey report addresses CIO views on current efforts to overcome the challenges and make positive contributions to the strategies of the Obama administration.

Most CIOs reported that the American Reinvestment and Recovery Act of 2009 (Recovery Act) has had no impact on their IT budgets, even though a portion of those funds are set aside for management and administrative purposes. Close to half of the CIOs report they are not involved in leading Recovery Act efforts in their agencies.



Our report concludes with a set of high-level strategic observations from the perspective of TechAmerica's industry members. Their recommendations to the Obama administration are to:

- Explain the vision that guides new initiatives
- Position Cloud Computing by describing in detail how and where it should be applied in government
- Add context to the concept of open government with more details about its shape, form and benefits
- Define the target state for cybersecurity and create a roadmap for achieving the appropriate level of operational security
- Improve acquisition through human resources and operational excellence
- Work with the Office of Personnel Management to improve the IT workforce
- Use performance management and accountability to drive results
- Focus on project management excellence, including on project management professionals, governance, links to mission and strategy and managing project scope

We agree with President Obama that federal IT is a critical part of government transformation. As such, it deserves the best, most considered leadership possible, clear goals and the right resources to make the journey.

Survey methodology

Purpose

TechAmerica (formerly the Information Technology Association of America) has conducted an annual federal government chief information officer (CIO) survey for 20 years. Through the survey, top IT officials, oversight groups and congressional staff share their views of the challenges federal CIOs face now and in the future. As in past years, TechAmerica received outstanding support from the federal CIO community and from Grant Thornton LLP, which helped sponsor and conduct this survey.

We conducted this year's survey interviews during the fall of 2009 and early winter of 2010. The purpose of the survey is to provide the IT community with a point-in-time assessment of the thinking of key federal IT opinion leaders on the significant issues they face now and in the future.

Methodology

TechAmerica's Federal Committee sponsored and conducted this year's in-person interviews from October 2009 through February 2010. Teams of TechAmerica interviewers met with more than 40 CIOs, information resources management officials and representatives from the White House Office of Management and Budget and congressional oversight committee staff. The TechAmerica CIO Survey Task Group selected interviewees based on their involvement in previous years, enterprise challenges and relevance of information technology to agency mission.

The Task Group developed an interview guide and questionnaire that reflects this year's theme: "Transparency and Transformation through Technology," which included these topics:

- Top challenges facing CIOs
- Transparency and transformation through technology
- Cybersecurity
- Cloud Computing
- IT workforce
- Performance management and accountability
- Acquisition reform and sourcing
- The American Reinvestment and Recovery Act of 2009
- Web 2.0
- Emerging technologies
- Thin Client
- Green IT

In order to obtain point-in-time and trend data, the interview teams also administered a multiple-choice "State of the CIO" questionnaire to participants who are CIOs. Both interviewers and those interviewed were free to explore and discuss areas of particular interest in more depth. Visit www.grantthornton.com/publicsector under Publications to download a copy of the survey guide and questionnaire.

Our survey's report reflects the words of interviewees to the maximum extent possible. However, to preserve anonymity we do not quote or attribute responses to specific individuals.

Transparency and transformation through technology

“Transparency will set you free,” says a federal CIO we interviewed for this survey. His feeling is shared by most of the CIO participants in the study, who are excited about President Obama’s ambitious program to create a more transparent, participatory and collaborative federal government. One reason for their energy is that, in the President’s first budget, the administration stated its intent to leverage the power of technology to transform the federal government. CIOs in our survey are buoyed by the key role they have been asked to play in transforming how the government and its constituents interact through information technology. Federal IT leaders also share a high-level understanding of what transparent government is intended to deliver. Yet, as a group, they have a wide range of views on what the desired end state will look like, the opportunities to be leveraged and the barriers to success.

Benefits of transparency

Commenting on public sector transparency’s core concept of openness, CIOs saw many benefits of broadening public participation and involvement in government. The most important benefits include:

- Greater trust between citizens and government
- Increased value in what government provides to citizens
- Innovation in government/citizen collaboration and in government services
- A better foundation for public-private partnerships
- A move from anecdote-based to fact-based government

IT approaches to transparency

CIOs in the survey appear to be progressing toward transparent government by focusing on two tactical areas: increasing *access to information* and *collaboration and participation*.

Access to information

Survey CIOs pointed to the most visible projects that President Obama’s administration has focused on to improve the access to various types of information from and about government, including Data.gov, USASpending.gov, Recovery.gov and the Federal IT Dashboard, shown in Table 1.

According to our CIOs, although the four information resources in Table 1 are designed for different data access and users, they have more common elements than differences. Each resource is maturing, still in its implementation and operational phases. As such, they all have similar issues such as data quality, lack of operational rhythm and defined requirements and low customer demand. Still, say the CIOs,



each resource promises to be effective in easy access to federal information—definite progress toward more transparent government.

Several CIOs say they have extended the attributes of the Federal IT Dashboard into their internal customer base (or are starting to do this). Their intent is to focus attention on customer service, security, mission support, and budget

and finance status and information. They say this form of internal organizational transparency will deliver the benefits that President Obama's administration expects government-wide, with increased trust and collaboration being paramount. One CIO says that he and his organization's chief financial officer (CFO) are working together on a CIO Operational Dashboard.

Table 1: Federal access to information projects

Project	Purpose	Features
Data.gov	Increases public access to high-value, machine-readable datasets generated by the Executive Branch of the federal government	<ul style="list-style-type: none"> • Searches raw data by single or multiple categories and by one or more agencies • Provides hyperlinks leading to agency tools or Web pages that allow mining of datasets • Accesses government geodata, or a combination of geospatial and other information
USASpending.gov	Provides a single searchable Web site, accessible by the public for free that includes information concerning federal awards (contracts, loans, grants, insurance, direct assistance, other payments)	<ul style="list-style-type: none"> • For each federal government award, gives the name and location of the entity receiving it, amount, transaction type, funding agency, and other information • Searchable by awardee, agency, type of award • Gives summary information such as top recipients of awards, etc.
Federal IT Dashboard	Provides details of federal government IT investments	<ul style="list-style-type: none"> • Tracks progress of IT investments • Gives performance information for major IT projects • Shows contractors and contract awards
Recovery.gov	Gives public access to data related to spending under the American Reinvestment and Recovery Act of 2009 (ARRA)	<ul style="list-style-type: none"> • Reports ARRA funding by state/territory, zip, congressional district, type of award • Shows locally reported and federal agency-reported spending • Geodata provided • Allows for the reporting of potential fraud, waste and abuse

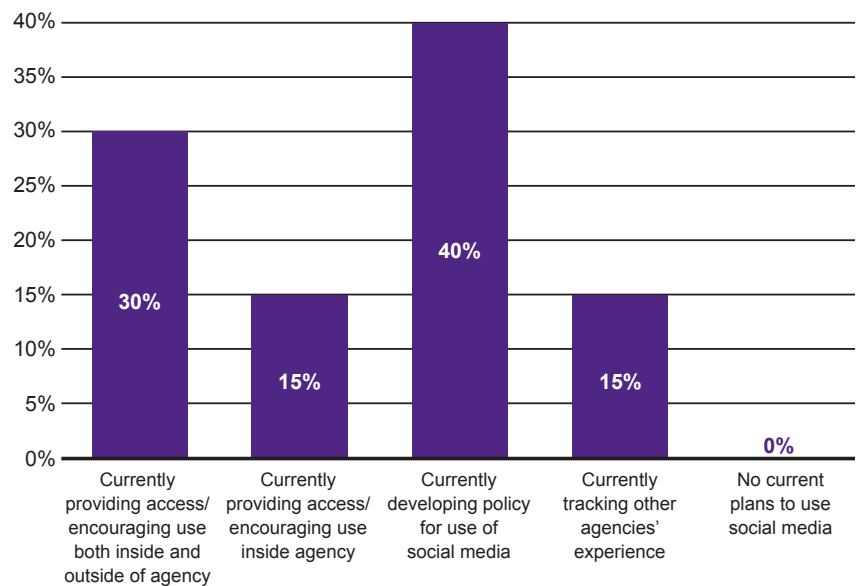
Collaboration and participation

CIOs say they are increasing efforts at collaboration and participation, including social media, Web 2.0 and Government 2.0 initiatives such as blogs, wikis, public dialogues and next generation Web sites. For example, in the State of the CIO portion of this survey we asked CIOs about their involvement with social media such as Twitter and FaceBook, which tie into the Obama administration's emphasis on transparent government. As shown in Figure 1, almost 30 percent report that they provide access to social media capabilities to employees and encourage their use in interacting with people both within and without an agency; 15 percent give access to employees only. Just fewer than 40 percent are working on the policy foundation they deem necessary for opening access to and use of social media. The rest are watching the experience of other agencies before starting their own initiatives.

Although CIOs reported few specific achievements related to these initiatives, most believe the activities facilitate the seamless exchange of ideas and information within and among government entities and between government and citizens. To this end, CIOs seem willing to engage in activities they consider experimental in nature, believing that these are the right things to be doing and that, in the end, the new ways will deliver important benefits. Several CIOs use personal blogs or other social media to improve strategic communications and participation within their organizations and, they are frank in saying, to gain personal experience with the social media in vogue.

Our CIOs also say that the administration's new directive on open government will identify additional initiatives that are important to moving the program forward. The directive also will establish the specific pace at which departments

Figure 1: How would you categorize the current state of your agency's involvement with social media, such as Twitter and FaceBook?



and agencies are expected to implement new capabilities. CIOs also anticipate that the directive will lead to a more robust policy framework that will enable the significant changes required.

Opportunities and barriers

CIOs see both opportunities for and barriers to transparent government. Opportunities include:

- Leveraging existing applications and data by improving access and collaboration
- Becoming a more agile government that is better able to adapt to change
- Using transparent government to improve support to and achieve core missions
- Providing visibility and momentum to enable eliminating low-value applications
- Cascading metrics from department-level dashboards down to individual performance objectives, thereby improving accountability

Haiti earthquake aftermath proves IT value

Tragedy struck Haiti while we interviewed CIOs for this survey. After the January 12, 2010, earthquake, several CIOs reported that Twitter, text messaging, FaceBook and other social media helped improve communication among disaster victims, rescue teams, relief organizations and charity-minded citizens, to name a few examples. The CIOs think that post-event assessments will show how that technology improved government and relief organization response. Indeed, the CIOs believe that the Haiti experience has transformed how such organizations will use technology to improve their tactics during future disasters.



Barriers to transparency include the following, say our CIOs:

- Opportunity cost of investments in transparent government (a minority of CIOs say that such investments would be better used for direct improvements of government operations)
- Improved tools, especially related to search, analytics and data quality
- Better definition of what the public wants and needs with respect to government information. Lacking clarity about citizen desires, several CIOs say that there is too much trial and error in current initiatives. This may be one reason that a CIO we interviewed says, "I will know what open and transparent government is when I see it.")
- Inadequate or inappropriate governance for projects aimed at transparent government
- Policy to support transparent government, especially for security and records management. Says one CIO, "We are moving fast without a policy framework."
- More reliable, proven security
- Legacy systems that impede agility and hinder transparency
- Data quality

In summary, federal CIOs we interviewed know they are a bit fuzzy on what the transparency end state will be and the plans to get there, and they see that there are some barriers along the way. However, they think that increasing transparency is the right thing to do because it will help lead to transforming government, working more effectively in the public sector and achieving better collaboration with citizens.

Key CIO challenges

What do federal CIOs consider their most important challenges? In the recent past, our annual CIO surveys show that these include cybersecurity, IT infrastructure, the IT workforce and IT management, which in 2010 are still high on the list of concerns. Many CIOs report progress in meeting some of the challenges. CIOs have redefined other challenges as understanding of them has matured.

Cybersecurity

Several CIOs say they see millions of malicious attempts per day to access their networks. Many are by recreational hackers, and there are increased attempts by sophisticated criminals looking for financial gain, say some CIOs. More alarming, say our survey participants, is the growth in cyber attacks backed by countries looking for classified information or ways to control critical parts of our military and critical infrastructure.

No wonder, then, that once again cybersecurity tops the list of federal IT challenges. CIOs described to us a set of threats that are increasing at an alarming rate, maintaining and sometimes widening the gap between the current and the desired security state. This has happened despite a great deal of funding and attention invested in trying to close the gap. Based on these discussions, four major cybersecurity topics emerge: the status of CIOs' current efforts, trends, issues and priority needs.

Status of current efforts

Our CIOs provided a status on several current cybersecurity initiatives which were started during the Bush administration:

- **Automated Federal Information Security Management Act (FISMA) reporting tool.** This effort, which aims at making FISMA

compliance activities of agencies more efficient and less costly, is being implemented in some agencies now. It does not address another reported issue, which is that there is too much emphasis on compliance versus operational security, but instead simply addresses the cost of compliance.

- **FISMA reform.** Congress is considering several reform bills that address criticisms and shortcomings of the current FISMA. Our CIOs support reforms that would make the FISMA process more of a technical review than, as one CIO says, "... a question-and-answer document asking rudimentary questions."
- **Trusted Internet Connection (TIC).** Most CIOs think this program is a good strategy and will produce better protected government Internet connections. On the other hand, several CIOs express concern that TIC will narrow the focus of cyber enemies and potentially mushroom the damage should they break in.
- **Federal Desktop Core Configurations (FDCC).** CIOs say this effort to direct security investments into standard configurations has made good progress. They think FDCC is good strategy and allows the government to focus its resources on testing and protecting a more defined universe of desktop software. Some CIOs were concerned about the level of effort and investment required to keep the FDCC current, considering the rapid pace at which technology evolves.
- **Identity management.** Several CIOs say that identity management is critical, especially for sharing information, because it creates trust across organizations and boundaries. Our CIOs expect a government-wide strategy will soon emerge to guide progress in this important security component.



Trends

CIOs say there is continuing movement toward centralizing security programs across the enterprise. This parallels trends to consolidate infrastructure, architectures, certain types of application systems and IT management components. Several CIOs say that the size of security breaches is trending downward while the number of attempts is going up. The same CIOs say that their efforts to monitor and protect networks and systems are having a positive effect.

Several CIOs mentioned infrastructure trends that have security implications or are driven by security strategy. For example, some organizations use Thin Clients, where devices do not support local storage but instead store all data and software on protected servers, with improved security being a key benefit. Several CIOs who deploy personal computers (PCs) as clients say that all local storage is encrypted. Some of those CIOs report that they no longer allow removable storage devices such as thumb drives. CIOs in organizations whose missions have national security implications and data report a continuing trend to operate parallel networks for classified and for less sensitive administrative uses.

Issues

Much of the security issue discussion we heard from CIOs seemed to involve a balance between opposite ends of the IT spectrum. Primarily, this was balancing security against the following: access to information; transparent, participatory, collaborative government; Cloud Computing; mobile/wireless computing; and social media. They also report issues of privacy versus access to information. CIOs say they are challenged and frustrated by the difficulty in establishing the right balance between security and improved access to information.

Other issues include:

- **Getting users to take security seriously.** Several CIOs say that a high percentage of security breaches occur because internal users are careless or fail to follow procedures.
- **Legacy applications.** Some CIOs say that legacy applications are their greatest area of security exposure, because of the programs' older technology and lack of security architecture built into them.
- **Human capital.** CIOs say that the ability to attract and retain certified security professionals is an acute and severe problem.

Priority needs

CIOs say their short- and long-term critical cybersecurity needs include the following:

- Insight into all devices on their respective networks
- Two-factor authentication for network access
- Active monitoring with predictive tools
- Standardization across an enterprise and between enterprises
- Unity of command to improve governance and accountability
- Access controls at both the domain and data levels

One CIO described a “spectrum of cyber capability” that he expects to implement over a four- to five-year period. His approach integrates improvements in security human capital and security infrastructure (i.e., more consolidation and upgraded security infrastructure). This CIO says his approach will “... avoid the death spiral mode of patching exploited security holes and instead move to active monitoring that anticipates and identifies threats before they occur and that has ready counter responses.”

IT infrastructure

Our CIOs say the state of the federal government’s IT infrastructure still presents a huge challenge. They portray the current state in several ways, but most characterize it as:

- Dated technology
- Lacking standards
- Security not architected in
- Costly to operate and maintain
- Cannot scale or adapt to meet changing mission requirements
- Low interoperability between application systems

Major parts of the infrastructure must be modernized, but how best to implement and maintain an affordable IT infrastructure platform that

will support current and future needs? For the last decade, the government’s answer has been a slow but consistent push toward a more consolidated infrastructure. CIOs we interviewed say that the benefits of consolidating IT infrastructure include improvements in:

- Security, efficiency, cost management and containment
- Ability to manage
- Responsive service
- Agility and ability to adapt to change
- Ability to focus on core mission
- Energy consumption

CIOs say that the Obama administration is continuing this approach, but with more emphasis on technology solutions than on management strategies to overcome organizational problems and resistance. Following is a summary of the CIOs’ comments on enterprise-level modernization initiatives.

Data center consolidation

CIOs we interviewed say that data center consolidation is an important part of IT infrastructure modernization and will help deliver the benefits listed in the previous section. Most consolidation activity started before President Obama took office in January 2009, but in the first year the administration has not emphasized it. However, in the FY 2011 budget the Obama administration introduced a new initiative to create a government-wide strategy with specific agency-level plans to consolidate federal data centers, reducing their number and cost. Also, the new budget calls for centralizing IT services for non-military agencies.

At the time of this survey, CIOs were not familiar with the details of the FY 2011 budget but knew enough to have opinions on its broad

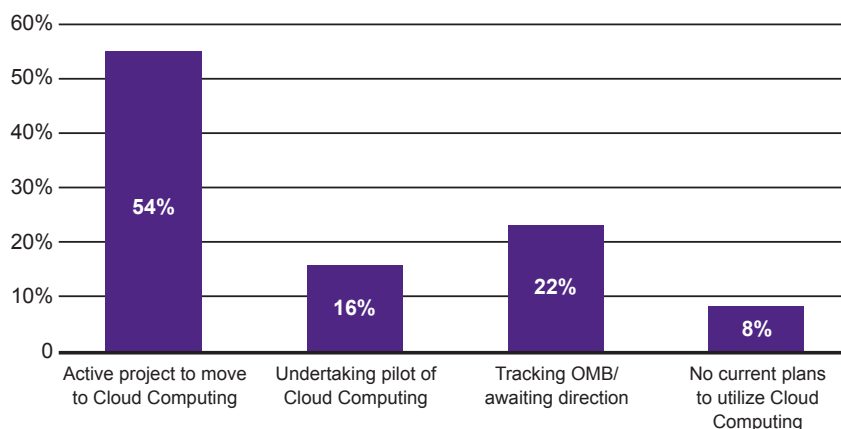


strategies. The CIOs' consensus was that the budget's consolidation initiatives were valid and appropriate approaches to push large portions of the federal IT infrastructure to greater efficiency and effectiveness. Some CIOs expressed concern about losing control of operations and the ability to serve their customers.

Cloud Computing

Federal CIOs emphasize Cloud Computing as an IT infrastructure solution, according to survey participants. As shown in Figure 2, most CIOs in the State of the CIO portion of our survey say they have initiatives in their organizations that support Cloud Computing. Some are waiting to see what other agencies and OMB do before committing to the cloud solution. (One CIO says that he did not want to be an early adopter, but would rather let another agency be the cloud "pioneer.") CIOs' opinions on Cloud Computing technology ranged from it being "innovative" and "emerging" to "time-sharing with a new engine under the hood."

Figure 2: How would you categorize the current state of your agency's involvement with Cloud Computing?



Some CIOs say they already use Cloud Computing. Examples given include internal active directory management services; cross-servicing for financial management and e-travel services; a mission system hosted in a private cloud by a large IT services firm; a hosting of Web portals; and using the Defense Information Service Agency's private cloud offering. Several CIOs say they have Cloud Computing pilot projects, such as a cloud-based applications suite, cloud email and scientific computing in a cloud environment.

Most CIOs see cybersecurity and privacy as barriers to widespread use of Cloud Computing. Until overcome, such barriers may confine Cloud Computing to public-facing or low-risk applications, pilots, testing, open-source solutions that are not mission critical and similar uses. Near term, says one CIO, Cloud Computing would be used for low-level sensitive systems, public clouds and community clouds. Another CIO believes that Cloud Computing promises improved security because of its ability to respond quickly to and mitigate threats.

Our CIOs suggest several areas where government and industry could remove perceived barriers to and speed adoption of Cloud Computing, including:

- Addressing security and privacy concerns
- Developing government standards for cloud solutions for security, records management, privacy and disability issues
- Determining how best to fit the Cloud Computing model into the federal appropriations process
- Pushing cloud providers to adopt standard approaches to application hosting to ensure portability for customers

- Addressing access to and identity management for the cloud
- Creating an affordable way to convert legacy applications to Cloud Computing

Virtualization

Virtualization is a hot topic among our CIOs and most report some form of server virtualization. One says he used virtualization to reduce server count by 60, and another reports 66, percent. Several CIOs say virtualization is a “smart” practice, which we interpret as the same as a best practice. These CIOs did not report any major challenges or issues with adopting server virtualization.

Software as a Service (SaaS)

Several CIOs use or plan to use SaaS as they continue to standardize and consolidate their IT infrastructures. Frequently mentioned uses for SaaS for basic enterprise systems were email, instant messenger, calendaring and office suites. Expanded uses reported were for Web portals, social media and collaboration tools. One CIO says that a great benefit of SaaS and Cloud Computing will be to enable aggregation and self-provisioning; she intends to start by consolidating fundamentals such as Voice over Internet Protocol (VoIP), e-mail and identity management.

Most CIOs involved in SaaS say they will use Cloud Computing providers. Several say the General Services Administration’s Apps.gov service will be their way to access cloud tools.

Thin Client

Several CIOs say they are incorporating Thin Client technology in their target state infrastructure in the planning, pilot or implementation phase. While most have an enterprise view for Thin Client use, several want to apply it for what

they call spot solutions. A CIO whose organization is deploying a Thin Client solution says that an earlier pilot test resulted in:

- Reduced cybersecurity threat because all data were bunkered in protected server environments and local storage was eliminated as a point of malicious access
- Lower implementation costs because of reduced cost of equipment and longer expected life
- Reduced operations and maintenance costs because all software and data are hosted on fewer centralized devices
- Improved service, chiefly because of simplified desktop management
- Reduced energy consumption, which delivers green IT (see the next section for more on this)

User resistance to giving up their PCs is a big issue, say our CIOs, but several say they overcame it by offering versions of “blade” computing where users get a PC-like experience through a Thin Client.

Green IT

CIOs in our survey clearly support green IT initiatives for reducing the energy consumed by computer technology. Green IT initiatives have been important to broader federal strategies for efficient energy use and have received increased emphasis in recent years.

All our CIOs report agency-level initiatives or strategies to reduce energy consumption. Most say these are small “low-hanging fruit” activities. They indicate that larger successes must wait until major modernization of IT infrastructures and consolidations such as reducing data centers or moving portions of their computing use to the cloud.

Several survey participants say they are part of a broader, agency-wide full energy efficiency audit that will produce recommendations for the CIO and other senior executives. They expect that IT consolidation initiatives mentioned earlier in this section will be part of their agency's energy savings plans.

IT workforce

As in years past, the IT workforce is one of the top concerns of federal CIOs. Those in our survey believe the government has a broad opportunity to enhance its human capital management and strategies and to reshape its workforce. Human capital management includes recruiting, hiring, retaining and developing an IT workforce capable of supporting government needs. Under the previous administration of President Bush, outsourcing where possible was an important human capital strategy. The Obama administration emphasizes insourcing instead, a significant change in direction. Either way, our CIOs say success in IT human capital initiatives is critical to the future of the federal government.

Issues

Survey CIOs listed several issues they think are barriers to achieving an effective IT workforce:

- Recruitment processes move so slowly that an agency's IT workforce candidates are often hired and working for other employers for six or more months before receiving a federal offer. (One CIO says that these processes are the antithesis of agile and adaptive.)
- Human resources organizations are unequipped and in some cases seemingly unmotivated to provide required support
- A perception exists, especially among young people, that the federal government does not

offer a challenging, innovative environment (one CIO made the comparison of "Google versus government")

- Agency processes may put all vacant positions in a pool, requiring re-justification before a replacement can be recruited
- Making insourcing a priority:
 - In an internal pilot, one CIO found that while insourcing costs less, it reduces flexibility. Which is more important?
 - It is much easier to bring in contractors than to recruit and hire federal employees
 - In the near term, contractors are the only alternative for many positions
 - Forcing insourcing with arbitrary goals established without analysis is the wrong approach
- Young people are generally reluctant to embrace IT as a career
- Forced rotations among staff, especially those involving geographic moves, hurt retention because many people do not want to move
- The performance evaluation systems need to be redesigned to ensure that individual performance is linked back to organizational goals
- The blended (federal employee/contractor) workforce is a reality; agencies need guidelines and best practices to achieve better performance
- Developing skills and keeping them current is a major concern, as is obtaining certifications and retaining certified personnel
- More training is needed, along with a reliable source of funding
- Removing nonperformers from the federal workforce is almost impossible, but with contractors it is easy
- Timely security clearance is an issue, especially for contractors



Solutions

CIOs in the surveys offered these suggestions for improving the IT workforce:

- Use internships because they produce a high percentage of hires
- Use social media to reach out and improve information flow to prospective employees, especially young, entry-level prospects
- Promote social media to transform the federal image to be more innovative and interesting
- Build and extend a sense of mission among staff to help retain them
- Offer easy access to on-line training; several CIOs report good results and increased flexibility through this solution
- Use knowledge management to capture institutional knowledge from experienced employees and facilitate its transfer to others
- Use an agency alumni network to attract and recruit candidates
- Create and maintain a good culture for employment

One CIO says, “The personnel system was set up to protect the status quo, not to enable hiring the best and brightest.” If this is a common perception, it calls for much broader, fundamental reform to fix what ails the federal workforce.

IT management

Most CIOs in the survey say their basic IT management processes are in place and fairly mature. This includes capital planning and investment control and enterprise architecture. Several CIOs consider their portfolio management processes to be mature, while others are still working toward this goal.

Governance

Many CIOs say IT governance is a challenge. They have agency executive councils and the like, but report that at times it is difficult to reach consensus on some issues and to make decisions stick through implementation. One survey CIO believes that enterprise IT governance is working fairly well, but that working-level governance continues to be a challenge, especially related to project decisions and project scope.

To deal with such issues, one CIO implemented a new governance process standardized around the Information Technology Infrastructure Library (ITIL) and change management. Another says his organization is incorporating a collaboration tool called e-Room into the governance process and expects to gain improvements as a result.

Project management

CIOs say they continue to struggle with implementing projects that meet user needs, deliver desired benefits and are on time and within budget. They think that processes based on the Project Management Book of Knowledge (PMBOK) offer the best alternative for a disciplined agency systems development life cycle, which is needed for better project planning and execution. Naturally, the CIOs want better trained, more experienced project managers as well.

Our CIOs are fully aware of the IT Dashboard (see Table 1) and the TechStat accountability sessions introduced in January 2010, both of which provide details of federal government IT investments, and the CIOs are working to improve the data they input to this database. Although they are concerned about decisions that might be made based on IT Dashboard data, in general the CIOs support it and think it will improve IT visibility within their organizations.



Efficiency and effectiveness

This section reports on issues such as cost management and containment, process streamlining, innovation and level of resources. We were also able to obtain comments from some CIOs on the FY 2011 federal budget's "Analytical Perspectives" chapter, which addressed information technology and specific sections dealing with making the IT infrastructure more efficient and effective.

Cost management and containment

Getting more bang for the buck is something federal CIOs are familiar with after years of tough economic times and pressure on discretionary budgets. The Obama administration has emphasized this through new initiatives that promise to increase efficiencies and decrease costs. Many of issues our CIOs discussed relate to IT infrastructure and are reported under that heading earlier in this report.

Another cost management initiative on consolidated acquisition is designed to add efficiency mechanisms such as Federal eMall ordering portals, Smart Buy and Apps.gov. Our CIOs support acquisition programs that leverage the government's buying power to reduce costs and make procurement more efficient. They think that Smart Buy has been a solid success, and that Apps.gov holds much promise. CIOs say the concept of a Federal eMall is sound, but that they do not know enough about its operational details to make any definitive comments.

Process streamlining

Streamlining activities are designed to make processes and systems more efficient and effective. Our CIOs say they support and are involved in efforts to streamline systems that have direct interface with citizens and other constituents.

They report improving Web-based interfaces with customers and back office integration that reduces complexity and customer effort. CIOs also believe that the Citizen Services Dashboard described in the FY 2011 budget will add impetus to streamlining and improve the customer experience.

Innovation

A major difference between the Bush and Obama administrations has been in the new administration's focus on innovation. Some examples include President Obama's appointment of a federal chief technology officer (CTO) to promote innovation through technology, especially in the private sector and between government and the private sector; the focus on unleashing innovation through the various components of open government; and the innovation expected from key initiatives like Cloud Computing and social media.

We asked our CIOs about their views on this new focus on innovation, and they gave us the following comments:

- Use technology to drive a culture of innovation, including using social networking to improve communications and collaboration around innovation
- Establish agency CTOs to continue the focus on innovation
- Use open-source applications and solutions to spur innovation
- Apply crowd sourcing to innovation, and improve its use through better communications and collaboration, open source and competitions
- Do outreach to world-class organizations to help import innovation (several CIOs say that the White House conference between private sector executives and federal CIOs drove home the core strategy of innovation)

- CIOs serving health care organizations say that IT innovation is critical to making health care more responsive, affordable and universal

Resources

Many CIOs say that their IT activities continue to receive too few resources to provide their organizations with expected levels of support. Although several CIOs expect modest increases in budget, none anticipates getting all the resources needed to get their jobs done well. As a result, CIOs agree that they will have to make trade-offs, even though this will increase the risk that some components of their programs will suffer less than optimal performance or even failure.

Performance management and accountability

We asked CIOs to describe the federal performance management/accountability environment and how they try to drive performance and accountability within their respective agencies.

Government-wide

When asked about a performance framework, some CIOs harked back to the Bush administration's President's Management Agenda. Most CIOs think that the Obama administration has not yet put in place and communicated a similar well-defined framework of performance management and accountability. Despite this, CIOs say they have a good take on where the current administration is headed with performance and accountability. They just are not clear about the details.

Our CIOs offered some general observations about what the federal IT performance and accountability program has been, is now and should become:

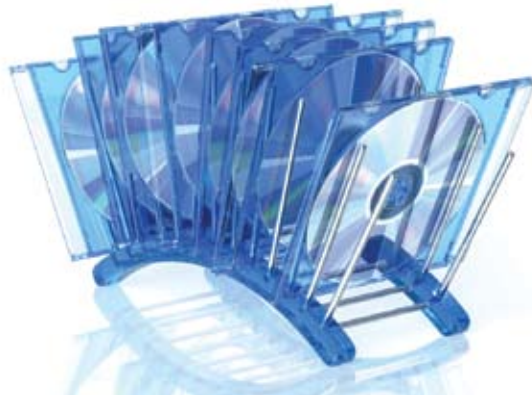
- The current system is based too much on compliance and not enough on outcomes and results

- The IT budget needs to be better aligned to priorities and expected results
- Performance frameworks should be specific in calling out and motivating transformational results
- Split missions across several agencies continue to be a significant performance challenge
- Best practices need to be shared and collaboration across organizations encouraged
- Centers of excellence like OMB's Lines of Business deliver better performance, and should be supported and continued as part of an overall performance and accountability strategy

Department- and agency-level

CIOs also commented on their own organizations' performance and accountability systems:

- Most CIOs say they have fairly current enterprise and IT strategic plans, though most of these need updating to include new administration priorities
- Most link their operational plans to strategic plans and measure performance
- Several report say they cannot make a good link between IT plans and enterprise strategic plans
- Several use balanced scorecards to measure performance and internal dashboards to communicate results
- Several use portal or collaboration tools to communicate performance and evaluate operational results against plans
- Several measure customer satisfaction with IT services
- Most cannot link individual performance plans to IT operational and strategic plans; several said this is a goal and described their vision of how the performance system would work
- Many lamented the lack of responsive, accurate financial management systems in their agencies, which causes them to struggle in developing cost baselines and measuring cost performance



- One said that his ability to create an environment of shared goals and performance measures has led to successful use of blended workforce teams of employees and contractors
- One uses a measure/review/improve cycle to manage processes that provide direct support to customers

Acquisition

Acquisition and procurement have been less of a problem since the mid-1990s because of reforms that streamlined their processes and authorities and enabled CIOs to procure needed technology with shorter cycles. Although the rules of the procurement game no longer handicap federal CIOs, executing acquisitions well and getting desired results is still a significant challenge.

One survey participant says that, from the CIO perspective, the goal of acquisition is to minimize the time gap between when a need is identified and when its solution is made operational. Other CIOs in the survey agree with that; here are their comments on what is working in acquisition, its problems and new directions coming out of the Office of Management and Budget.

As mentioned above under the heading “Cost Management and Containment,” the CIOs support consolidated federal buying methods such as Smart Buy, Apps.gov and federal eMall. Several report good results using Smart Buy for enterprise licensing and service agreements, but are less familiar with operational details of Apps.gov and federal eMall. CIOs say that GSA plays an important role in the product and service acquisition and provisioning processes.

However, they are concerned with what one CIO called “dysfunctional” behaviors resulting from gaps in the GSA senior leadership team.

Most CIOs say their acquisition organizations are overworked because of shortages of qualified staff and excessive oversight. One CIO suggests that innovation is punished in federal acquisition organizations.

Some CIOs report positive signs such as more acquisition personnel coming on board and reorganizations that better align acquisitions groups and their customers. Still, several CIOs remain concerned that the pool of experienced acquisition personnel is not growing fast enough and that agencies will continue to “poach” acquisition staff from each other. Most CIOs also say they recognize that the personnel problem is not limited to their agency’s acquisition group; CIO offices desperately need more qualified and experienced program managers and contracting officer representatives.

Our CIOs are also firm that more acquisition reform is not necessary. Instead, they advocate implementing the current statutes and regulations properly, which one CIO describes as a basic “blocking and tackling” issue. Contrary to what some critics believe, says one CIO, the type of contract vehicle used for IT products and services is not a problem. Used in the right situations, says this CIO, cost plus fixed fee (CPFF), time and materials (TM) and firm fixed price (FFP) are all appropriate approaches. All CIOs agree that improvement requires effective leadership and adequate, trained staff, plus good governance over the acquisition process.

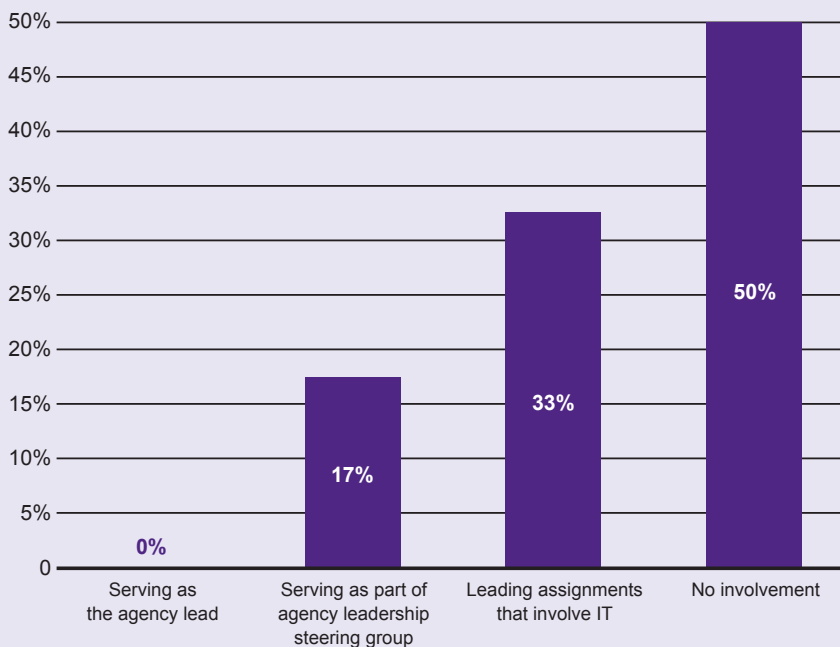
Effect of the Recovery Act



The American Reinvestment and Recovery Act of 2009 (Recovery Act) channeled new funds into some federal IT programs and created new data collection and reporting requirements for others. Only one in ten CIOs in our State of the CIO Survey reported that the Recovery Act had an impact on their IT budget, either with funds from the Act or other sources.

As shown in Figure 3, about half of the CIOs interviewed say they have been involved in Recovery Act planning and implementation within their department or agency, with 20 percent serving on their entity's leadership steering group and 32 percent carrying out assigned tasks related to the Act.

Figure 3: What has your involvement been within your agency with Recovery Act planning and implementation?



Monitoring and reporting the use and impact of recovery funds is important to the Obama administration and Congress, so we had anticipated that CIOs would be more involved in leading Recovery Act activities. Instead, it appears that government chief financial officers (CFOs) led the efforts and used the financial systems they control as the main reporting mechanism.

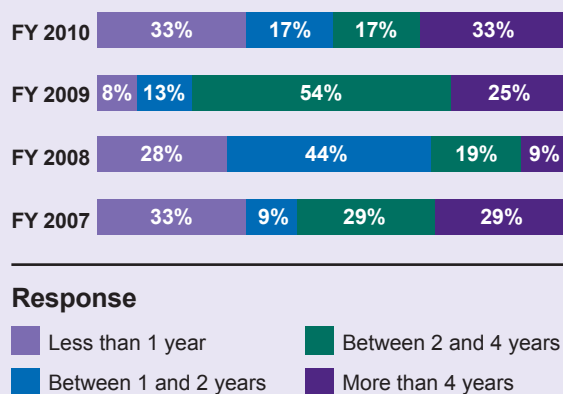
State of the CIO Survey

The State of the CIO Survey is a series of short, closed-ended questions about CIOs' demographic backgrounds, professional profiles and opinions. This is the sixth year we have included these questions, which allows us to do trend analysis.

Time in office

The first question we asked was “How long have you been in your current job?” Figure 4 combines the FY 2007 through FY 2010 responses that CIOs gave to this question. We expected that CIOs interviewed in FY 2010 would have served less time in their jobs than CIOs in previous years because of the transition to a new presidential administration. Figure 4 bears this out: in FY 2010, one-third of CIOs had less than one year's tenure in their office, versus 8 percent in FY 2009. However, those serving four or more years in their current position also increased from 25 percent in FY 2009 to 33 percent in FY 2010, a slight growth in what appears to be a cadre of experienced career CIOs.

Figure 4: How long have you been in your current job?



Barriers to progress

We asked CIOs to rank order the greatest barriers to increased effectiveness of CIO offices. As shown in Table 2, in FY 2010 the top barrier is “shortage of time for strategic planning and thinking,” which has risen in importance every year since FY 2007. The latest boost to the time shortage problem may be FY 2010's second greatest barrier, “new externally directed initiatives.” In our opinion, this “new initiatives” issue reflects the significant change in direction and strategy introduced by the Obama administration, especially with respect to open and transparent government. This is not to say that the new initiatives are bad; it simply means that they consume a good deal of CIOs' time.

A second thing to note about Table 2 is the persistence of some of the other barriers. “Conflicting priorities among program units” has remained in the top five barriers for five years, along with a related problem of “aligning IT efforts with agency goals.” “Inadequate budgets” has been on the list four out of the past five years. New CIOs should be aware of these seemingly unshakable problems, which appear to be part of the job of the federal government's top IT executives.

Value of IT initiatives

Table 3 shows how our CIOs ranked the initiatives they think will yield the greatest value to their organizations in FY 2010. As with the barriers shown in Table 2, there is a good deal of consistency in the items that make the top five list, although the year-to-year rankings differ somewhat. For example, since FY 2007 CIOs say that the two highest-value initiatives relate to integrating systems and processes and to implementing security and privacy measures. In FY 2010, transparency and performance management initiatives joined the top five, indicating that the Obama administration's goals are rising on the CIO radar screen.

Table 2: Greatest barriers to increased effectiveness of CIO offices

Which are the greatest barriers to your offices' increased effectiveness? (Rated on a scale of 1 to 5, with 1 being greatest barrier)	Initiative	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
	Shortage of time for strategic thinking/planning		4	4	2	1
	Conflicting priorities among program units	1	1	1	1	4
	Lack of key skill sets	4	5			
	Inadequate budgets	2	2	3	3	3
	Difficulty proving the value of IT	5				
	Aligning IT efforts with agency goals	3		2		5
	Ineffective communication with users/unrealistic customer expectations		2			
	Other – Culture			5		
	Overwhelming pace of technology change				4	
	Disconnects with executive peers				5	
	New externally directed initiatives					2

Table 3: Initiatives that will provide greatest value

Which initiatives will be of the greatest value to your organization in FY 2010? (Rated on a scale of 1 to 5, with 1 being highest value)	Initiative	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010
	Integrating systems and processes	2	1	1	2	1
	Strategic planning/aligning IT and agency goals	4	4			
	Project management improvements	1	5	4	3	3
	Implementing security and privacy measures	3	1	2	1	2
	Lowering costs	5	3	3	4	4
	Line of Business initiatives		5	5		
	Staff development, retention and recruitment				5	
	Transparency and performance management initiatives					5

Observations from industry

Earlier sections of this report reflect the views of federal CIOs. This one presents opinions from industry executives who represent member companies of TechAmerica. Here, we want to offer observations that may help federal CIOs with their strategies, implementations and operations.

Last year, we offered a set of observations that dealt mainly with management structure, approach and perspective, which included the following:

- Strong leadership drives change
- Employ laser-sharp focus
- Demand and verify results
- Achieve good IT governance
- Fix IT infrastructure
- Fund priority initiatives
- Continue to standardize and consolidate
- Strengthen the blended workforce

We are delighted to see elements of each of these observations included in the federal IT strategy represented in the FY 2011 budget. In the spirit of government/industry partnership, and with a sense of shared ownership for federal IT, we offer these observations in 2010.

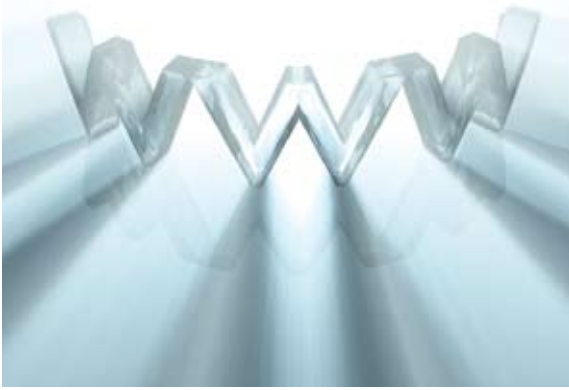
Explain the vision

In budget documents and pronouncements the Obama administration has identified the initiatives it expects to focus on for the next few years. This vision of the future needs to be presented more robustly in order to gain the full effect of the administration's strategy and to engage the collective energies of the federal CIO community and the industry that serves it. We believe the administration should broaden strategy discussion to describe more fully the problems and issues it is intended to address. This includes describing the desired end state in enough detail that the federal IT community can visualize it. Explain the full range of expected benefits, and then connect them to expected performance and results, to the budget to gain them, to the vision and to how people are to address the underlying problems. Proceeding with this strategy-in-depth approach will improve understanding and unleash the federal IT community to achieve the vision.

Position Cloud Computing

Cloud Computing is an important initiative in the federal IT budget. It is being evaluated this year, with deployment starting in FY 2011. In keeping with our general observation about explaining the vision, we believe the administration can lessen confusion and make greater headway on Cloud Computing by describing in detail how and where this technology should be considered for use over the next several years.





Add context to open government

IT is a critical element in transforming “open government” from presidential pledge to administration policy to government-wide programs and culture. As a concept, open government has been broadly defined and targeted for substantial innovation. However, to make optimal progress, we believe the administration should add context to the concept. This includes supplying more details about the shape, form and benefits expected for open government in the near term. Because open government will be transformative, the administration should define a longer-term view for it, including desired results and priority focus areas.

Define the target state for cybersecurity

Cybersecurity has been a critical challenge for the last decade, and will continue to be into the future. As shown in Table 3, CIOs consider cybersecurity a top-value initiative. There has been much debate about the appropriate level of focus on compliance activities versus operational activities, but for now we will set that aside for something we think is more fundamental: the administration should create a roadmap for achieving the appropriate level of operational security. The map needs to include the envisioned level of consolidation and standardization, how and where third-party services (like cloud) should be employed, the role of Thin Clients, how mobile devices should be deployed and secured, the appropriate use and security for removable storage media, required monitoring and incident response facilities and other practical issues.

Improve acquisition through resources and operational excellence

As was stated earlier in this report’s section on acquisition, the important challenges do not involve contract type or the statutes governing the process. Instead, they are about the quality of the contracting process, administration and operations. We think the government should continue to acquire and develop a capable and sufficient workforce to handle acquisitions. Also, look for ways to streamline acquisition operations and improve their performance. Consider including in solicitation documents a description of the linkage between an acquisition and the soliciting organization’s mission and strategy. Also, add to solicitations inducements such as incentives or evaluation criteria in order to motivate contractors to leverage existing investments and infrastructure.

Work with the Office of Personnel Management to improve the IT workforce

Government has a rare—even historic—opportunity with respect to human capital. Everyone concerned understands that workforce issues are critical. Many federal employees are at or near retirement; the recession makes federal employment look more attractive; and the administration and its new leadership at OPM want significant change in government. Seize the moment and work with OPM to create a better IT workforce environment. In doing so, government organizations should use existing best practices such as those found in the Department of Defense, to train employees and develop new leaders. In addition, push the use of technology-based tools to streamline administrative process and for training.

Use performance management and accountability to drive results

Working within the administration's performance framework, tie performance, people, process, technology and budget together. This will help ensure that expected results are aligned with and aimed at and deliver the desired state. Carefully design performance measures to drive required behaviors that deliver expected results. Continue to increase visibility and transparency by reporting results in focused dashboards.

Focus on project management excellence

The Federal IT Dashboard improves the flow of project information and will motivate senior leaders to deliver the best results possible. Such motivation can only deliver so much, though—other things are needed for success. The administration should:

- Build from past efforts to develop a cadre of professional project managers and a set of consistent, repeatable project management methods
- Improve IT governance processes
- Keep IT investments linked to mission and strategy and avoid investing where the link is not clear
- Help agencies manage scope and change during project execution

In summary, high performance occurs when leaders put all these pieces together. Begin with a clear explanation of the desired future state, which is the more expansive and granular vision called for above. With this, the broadest swath of people, process and technology can be leveraged to attain it. Performance management and accountability become the bridge, offering the “line of sight” between effort and results. Open government provides transparency for these results. Dashboards connect budgeted resources and planning timelines to desired mission results.

Operate in a secure manner and environment. Establish, train and recognize a professional project management cadre. Teamed with a larger acquisition workforce, they can clearly articulate requirements, effectively procure necessary resources and develop innovative, effective solutions. And take advantage of the opportunity to change the existing bureaucratic culture by recruiting and training a new generation of “technology natives” to the 21st century government IT workforce. The current challenges we face as a nation demand this response. Our citizens deserve no less.

Appendices

Appendix A: Participating Federal IT officials

Note: The titles and positions of the government officials listed below were current at the time they were interviewed.

Charles R. Armstrong
*Assistant Commissioner
and CIO*

U.S. Customs and
Border Protection
Department of
Homeland Security

Darren B. Ash
*Deputy Executive Director
for Corporate Management
and CIO*
Nuclear Regulatory
Commission

Roger W. Baker
*Assistant Secretary for
Information and Technology
and CIO*
Department of
Veterans Affairs

Richard Beutel
General Counsel
Commission on Wartime
Contracting in Iraq
and Afghanistan

**Sanjeev “Sonny”
Bhagowalia**
CIO
Department of the Interior

Douglas J. Bourgeois
Director
National Business Center
Department of the Interior

Robert Brese
Deputy CIO
National Nuclear Security
Administration
Department of Energy

Robert E. Brown
*Associate Director,
Administration and Budget*
Minerals Management
Service
Department of the Interior

Sylvia Burns
Chief
Information Technology and
Portfolio
Management Division
Office of the CIO
Department of the Interior

Robert J. Carey
CIO
Department of the Navy

Michael W. Carleton
CIO
Department of Health and
Human Services

Casey Coleman
CIO
General Services
Administration

Steve Cooper
CIO
Air Traffic Organization
Federal Aviation
Administration
Department of
Transportation

Lisa Davis
*Assistant Director,
Information Technology*
U.S. Marshals Service
Department of Justice

RADM Robert Day
*Deputy Commandant
for Command, Control,
Communication, Computing
and Information Technology
and CIO*
U.S. Coast Guard
Department of
Homeland Security

Debra Diaz
Associate CIO
National Aeronautics and
Space Administration

Alvin Foster
Acting CIO – Indian Affairs
Department of the Interior

Adrian R. Gardner
CIO
National Weather Service
National Oceanic and
Atmospheric Administration
Department of Commerce

Gregory Gardner
*Deputy Intelligence
Community CIO*
Office of the Director of
National Intelligence

Priscilla Guthrie
*Associate Director of National
Intelligence and Intelligence
Community CIO*
Office of the Director of
National Intelligence

Diane L. Herdt
CIO
Public Buildings Service
General Services
Administration

Erik Hopkins
Professional Staff
Homeland Security
and Government
Affairs Committee
U.S. Senate

Michael Howell
Deputy Administrator
Office of E-Government and
Information Technology
Office of Management and
Budget

David Jarrell
*Director, IT Policy
and Governance*
Office of the Chief
Information Officer
National Nuclear Security
Administration
Department of Energy

Stuart Kieffer
Chief of Staff
Comptroller of the
Currency
Department of
the Treasury

Ronnie Levine
*Assistant Director,
Information Resources
Management and CIO*
Bureau of Land
Management
Department of the Interior

Renee A. Macklin
CIO
International Trade
Administration
Department of Commerce

Bernard Mazer
*Assistant Director of
Information Resources and
Technology Management and
CIO*
U.S. Fish & Wildlife Service
Department of the Interior

David McClure
Associate Administrator
Office of Citizen Services
and Communications
General Services
Administration

Steve McDevitt
Deputy CIO
Federal Emergency
Management Agency
Department of
Homeland Security

Douglas McManus
Deputy CIO
Civil Division
Department of Justice

John W. Owens II
CIO
U.S. Patent and
Trademark Office
Department of Commerce

Bajinder N. Paul
CIO
Office of the Comptroller
of the Currency
Department of
the Treasury

Nitin Pradhan
CIO
Department of Transportation

Thomas N. Pyke, Jr.
CIO
Department of Energy

Susan H. Swart
CIO
Department of State

Jade Tavaglione
Assistant Director
Consolidated Asset Tracking
System (CATS)
Asset Forfeiture
Management Staff
Department of Justice

Robert Tobin
*Director, Technical
Services Group*
Air Traffic Organization
Federal Aviation
Administration
Department of
Transportation

Douglas D. Verner
CIO
National Credit Union
Administration

Steve Watts
Director, Data Services Group
Air Traffic Organization
Federal Aviation
Administration
Department of
Transportation

David M. Wennergren
Deputy CIO
Department of Defense

Linda R. Wilbanks
CIO
National Nuclear Security
Administration
Department of Energy

Jerry E. Williams
CIO
Department of Housing and
Urban Development

Michael R. Williams
*Executive Director,
Information Technology
and CIO*
Defense Contract
Management Agency
Department of Defense

Charles D. Wisecarver
*Principal Deputy CIO
and Chief Technology Officer*
Bureau of Information
Resource Management
Department of State

Appendix B: Industry participation in report preparation

Note: The titles and positions of the industry officials listed below were current at the time the interviews were conducted.

TechAmerica staff

Olga Grkavac

CIO Survey Task Group

Renia Harper

CIO Survey Task Group/
Publication Manager

Grant Thornton LLP staff

Paul Wohlleben

Chair, CIO Survey Task Group

Steve Clyburn

CIO Survey Task Group

George DelPrete

CIO Survey Task Group

Orletta Harley

CIO Survey Task Group

Norman Lorentz

CIO Survey Task Group

2010 CIO Survey interviewers

Naval Aggarwal

Grant Thornton LLP

Dick Alderson

EMC Federal

Fred Alt

Grant Thornton LLP

Leigh Ann Anderson

CSC

Chris Bailey

Brocade

Alan Balutis

Cisco

Jim Beaupre

FedResults

Stephanie Bogdanovic

BMC Software

Sandra Burnis-Holly

Raytheon

Dan Chenok

Pragmatics

Linda Clark

ICF

Julie Collins

GTSI

Claudine Conway

Dell

John Cox

Grant Thornton LLP

Lou Crenshaw

Grant Thornton LLP

Bob Dinkel

FedResults

Tina Duy

ACS Federal Solutions

George Economou

Akamai

Jackie Everett

Serco

Susan Feinberg

HCRS

Chris Francis

L-3

Randy Glanz

General Dynamics Advanced
Information Systems

Joe Guirrerri

KGS

Gene Hayman

Boeing

Ed Hearst

Sybase

Karen Holmcrons

Grant Thornton LLP

Steve Hunt

CIO Partner, Inc.

Michelle Jobse

Serco

Marc Jones

Cast Software

Mike Kush

Capgemini Government Solutions

Melissa Lange-Kaufman

VMware

Ted Manakas

Perot Systems

Carolyn Manetti

ATSC

Linda Martin

Unisys

Vincent Mastroianni

CA

Joe Mazzafro

Oracle

Dave McGill

Capgemini Government Solutions

Doug McWilliams

Pragmatics

Kathy Minchew

Federal Insights

Art Oberhofer

Verizon

Nick Pavski

Grant Thornton LLP

Mike Perez

Grant Thornton LLP

Tom Perkins

CACI

James Poffel

Sunguard

John Przysucha

Deep Water Point LLC

David Riggs

QinetiQ North America

Jerry Riso

Grant Thornton LLP

Gerald (Gerry) Robbins

Northrop Grumman

Ben Romero

Lockheed Martin

Michelle Sangiuliano

ACS Federal Solutions

Terry Sargent

General Dynamics Information
Technology

David Spillers

Citrix

Bob Steele

Bob Steele Consulting

Roger Stern

Lockheed Martin

Paul Strasser

Pragmatics

Jim Sullivan

SAP America

Kenneth Touloumes

The Touloumes Group

Dan Twomey

GigaTrust

Shiva Verma

Grant Thornton LLP

Joe Wagovich

Lockheed Martin

Tim Young

Deloitte



TechAmerica
1401 Wilson Boulevard
Suite 110
Arlington, Virginia 22209



Grant Thornton

Grant Thornton LLP
333 John Carlyle Street, Suite 500
Alexandria, Virginia 22314