

September 20, 2017

Christopher Liddell  
Director, American Technology Council  
The White House  
1600 Pennsylvania Avenue, N.W.  
Washington, DC 20500

Dear Mr. Liddell:

On behalf of the more than 400 member companies of the Professional Services Council (PSC), I respectfully submit the enclosed comments on the American Technology Council (ATC) and Office of Science and Technology Policy's (OSTP) August 30, 2017 draft "Report to the President on Federal IT Modernization."

PSC is the voice of the government technology and professional services industry. PSC's more than 400 member companies represent small, medium, and large businesses that provide federal agencies with services of all kinds, including information technology (IT) services. Together, our members employ hundreds of thousands of Americans in all 50 states.

PSC strongly supports the Trump Administration's commitment to bring more innovation into government, modernize federal IT systems, and help agencies leverage commercial technologies and best practices. The Federal government today has a tremendous opportunity to access innovation and the best ideas and solutions that the private sector has to offer. Modernizing outdated federal IT will not only improve the government's cybersecurity posture but also support agency process innovation to deliver better services at better value to all Americans.

Should you have any questions, please feel free to contact me at [chvotkin@pscouncil.org](mailto:chvotkin@pscouncil.org) or Kevin Cummins, PSC Vice President Technology, at [cummins@pscouncil.org](mailto:cummins@pscouncil.org). Thank you for your consideration.

Sincerely,



Alan Chvotkin  
Executive Vice President & Counsel

encl.: PSC Comments on Draft "Report to the President on Federal IT Modernization"

## **PSC Comments on Report to the President on Federal IT Modernization**

**September 20, 2017**

The Professional Services Council (PSC) respectfully submits the following comments and recommendations to improve the American Technology Council (ATC) and Office of Science and Technology Policy's (OSTP) August 30, 2017 draft "Report to the President on Federal IT Modernization."

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PSC strongly supports the Trump Administration's commitment to bring more innovation into government, modernize federal IT systems, and help agencies leverage commercial technologies and best practices. The Federal government today has a tremendous opportunity to access innovation and the best ideas and solutions that the private sector has to offer. Modernizing outdated federal IT will not only improve the government's cybersecurity posture but also support agency process innovation to deliver better services at better value to all Americans.

We urge ATC and OSTP to go further and faster than the recommendations and deadlines outlined in the draft report. In addition, ATC and OSTP should adopt the following PSC recommendations to improve the report and the vision it outlines for federal technology.

### **PSC Recommendations**

#### **1. What are major attributes that are missing from the targeted vision?**

- A. Include additional IT procurement policy recommendations to enable the government to reach the full array of capabilities and solutions that exist in the private sector
- B. Require agencies to develop IT modernization plans, submit these plans to OMB, and publicly report implementation progress
- C. Accelerate the adoption of cloud computing across the federal government.
- D. Modernize legacy IT systems that cannot be moved to the cloud
- E. Direct agencies to accept ATOs to increase the use of secure cloud technologies
- F. Include more aggressive recommendations to secure High Risk/High Value Assets (HVAs)
- G. Extend layered security architecture approach to cloud services
- H. Modernize data through advanced analytics and artificial Intelligence

- I. Modernization via software-defined technologies and hybrid cloud solutions
- J. Terminate systems that support outdated policies or business processes, especially those that can be automated or provided by as-a-service technologies
- K. OMB should work with the Congressional Budget Office (CBO) on “scoring” of IT modernization cost savings

**2. What are major attributes that should not be included in the targeted vision?**

- A. Remove recommendation to halt upcoming procurement actions on all legacy IT
- B. Delete references to specific companies and solicit input from more than just CSPs

**3. Are there any missing or extraneous tasks in the plan for implementing network modernization & consolidation?**

- A. Change numerous data gathering and reporting recommendations to action-oriented recommendations
- B. Include IT, cybersecurity and acquisition workforce recommendations
- C. Consolidation beyond small agencies’ use of Enterprise Infrastructure Solutions (EIS)
- D. Require an inventory of agencies’ use of unsupported hardware and software
- E. Engage IT industry early and often

**4. Are there any missing or extraneous tasks in the plan for implementing shared services to enable future network architectures?**

- A. Emphasize private sector role in expanding shared services opportunities
- B. Do not use category management to define future agency IT needs or spending
- C. Include more action-oriented recommendations to expand the use of shared services

**5. What is the feasibility of the proposed acquisition pilot?**

- A. Expand cloud-based email pilot and validate assumptions it is based on
- B. Volume pricing and pricing transparency
- C. Getting industry buy-in and feedback

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**1. What are major attributes that are missing from the targeted vision?**

***A. Include additional IT procurement policy recommendations to enable the government to reach the full array of capabilities and solutions that exist in the private sector***

The most important attribute missing from the targeted vision is a procurement policy framework that enables the government to better access the common-sense solutions and modern technologies described in the report. Modernization used to be accomplished by buying new technology and hiring internal or external staff to rebuild the IT. But today most modern IT is generally acquired as a service. As the report notes, the newest and most cost-effective technologies are now acquired using a consumption-based model characterized by payment for a quantity of an IT service consumed. Current IT procurement regulations, and many associated laws, however, were designed for an IT sourcing model that is rapidly

becoming a constraint on accessing innovation. Government IT contracts continue to focus on buying time (e.g. labor hours) and materials (e.g. hardware or travel consumed by people working on the contract). As a result, the government creates both a barrier for itself and a disincentive for industry to provide innovations that are increasingly only available as a consumable service.

While the report does briefly cite agencies' difficulty in procuring services quickly, it should include more detailed procurement policy reforms to:

- promote competition and innovation by removing barriers to participation by all industry partners, whether they approach the government directly or through teaming or subcontracting relationships;
- encourage the use of performance-based contracting for professional and IT services;
- discourage the improper use of "lowest-price technically-acceptable" (LPTA) evaluation factors for complex professional and IT services contracts;
- support consumption-based purchasing for cloud computing and other as-a-service technologies;
- foster continuous and open communication between government and industry to ensure optimal outcomes are achieved;
- take advantage of current flexibilities in the Federal Acquisition Regulation (FAR) to facilitate the rapid insertion of new technology and alternative approaches; and
- leverage a well-trained, experienced, skilled and supported federal acquisition workforce to achieve successful outcomes.

These best practices are described in more detail in our Tech Corridors Innovation Paper entitled "Delivering Results: A Framework for Federal Government Technology Access & Acquisition" (available at [www.pscouncil.org/Downloads/documents/Tech%20Corridors%20White%20Paper%20-%20Final%20-%202012-9-15.pdf](http://www.pscouncil.org/Downloads/documents/Tech%20Corridors%20White%20Paper%20-%20Final%20-%202012-9-15.pdf)).

***B. Require agencies to develop IT modernization plans, submit these plans to OMB, and publicly report implementation progress***

As White House Senior Advisor Jared Kushner noted in his public remarks after the American Technology Council's June 5, 2017 meeting, an unsustainable amount of the government's annual IT budget is spent on maintaining legacy systems. The draft report, however, does not go far enough in its recommendations to agencies to reallocate funding from obsolete legacy systems to modern ones. With the rise of "as-a-service" technologies, government's focus should be the cost and capability to perform, given the needs of Americans with respect to security, social, and economic realities.

OMB should require agencies to develop agency business modernization plans that incorporate today's best practices for technology management. The focus should be on the net benefit to citizens and federal agency performance results. The agency plans must go beyond network

architecture-related technology and include modernization of operations that accomplish one or more specific measure of success, such as cost reduction, program or policy achievement, or adaptation of an agency mission to the digital economy (e.g. eliminating paperwork requirements that are no longer relevant). OMB should further require agencies to measure and publicly report on progress (e.g. schedule, budget, deliverables, and other performance metrics) on Results.gov and the IT Dashboard. Additionally, ATC should consider submitting quarterly progress reports to the President’s Management Council, OMB’s program associate directors (PADs) and deputy associate directors (DADs), and at the President’s Cabinet meetings.

***C. Accelerate the adoption of cloud computing across the federal government***

America is the world leader in cloud computing yet our government lags behind the private sector when it comes to cloud adoption. Despite the “Cloud First” policy described in the 2011 Federal Cloud Computing Strategy, PSC’s 2016 Federal CIO Survey found that only five percent of federal IT leaders believe their agencies have made enough progress moving to the cloud (see [www.pscouncil.org/c/p/CIO\\_Survey/CIO\\_Survey.aspx](http://www.pscouncil.org/c/p/CIO_Survey/CIO_Survey.aspx)). The final report should direct OMB to not only update the Federal Cloud Computing Strategy with additional guidance for agencies (recommendation no. 26) but also hold agencies accountable for the timely implementation of their “cloud first” plans. The report could set expectations for far more cloud migrations in the near-term than currently included in the report. To increase efficiency and oversight, we recommend that migration to cloud computing be given its own topic area, separate from “Modernizing the TIC and NCPS.” Several of the recommendations within this section directly relate to accelerating cloud migration, not modernizing TIC and NCPS.

***D. Modernize legacy IT systems that cannot be moved to the cloud***

The final report should include more specific recommendations related to modernizing agency IT systems or applications that cannot be moved to cloud or that will be too costly to rearchitect to for cloud migration (e.g. certain mainframe-based applications). Modernizing this type of legacy IT, and especially those systems that have cyber vulnerabilities, can provide important benefits to government that are not captured in the draft report’s targeted vision.

***E. Direct agencies to accept ATOs to increase the use of secure cloud technologies***

OMB should require agencies to rely on cloud service providers’ (CSPs’) Authorizations to Operate (ATOs) and provisional authorizations from other agencies or the Joint Authorization Board. Following this “do once, use many times” approach originally envisioned by the Federal Risk and Authorization Management Program (FedRAMP) would help accelerate cloud adoption and encourage more CSPs to compete for federal contracts. When such reciprocity – through proper, risk-based leveraging of an ATO – is not granted, agencies should report and explain to OMB and to the FedRAMP Program Management Office why such reciprocity is not appropriate. Federal CIOs and IT leaders interviewed as part of PSC’s annual Federal CIO Surveys (available at [www.pscouncil.org/c/p/CIO\\_Survey/CIO\\_Survey.aspx](http://www.pscouncil.org/c/p/CIO_Survey/CIO_Survey.aspx)) similarly expressed frustration with burdensome certification requirements for solutions that house only low-risk data. Although helpful steps have been taken to streamline the FedRAMP process, the current lack of reciprocity for ATOs must be addressed to accelerate the adoption of secure cloud

solutions. The final report should further seek to accelerate and standardize the ATO approval process across the civilian agencies. PSC's 2015 publication "Best Practices for Federal Agency Adoption of Commercial Cloud Solutions" (available at [www.pscouncil.org/Downloads/documents/PSC-Cloud-WEB%20-%202012-10-15.pdf](http://www.pscouncil.org/Downloads/documents/PSC-Cloud-WEB%20-%202012-10-15.pdf)) includes additional recommendations and guidance for agencies.

***F. Include more aggressive recommendations to secure High Risk/High Value Assets (HVAs)***

The draft report highlights the High Risk/High Value Assets (HVAs) initiative launched in 2015 to prioritize the modernization and security improvements for these "crown jewel" systems. We support making this the first item in the implementation plan. However, the implementation plan should do more than generate additional plans and reports. There are simply too many cyberattacks on federal networks and too many breaches that have been publicly reported to wait for another remediation plan and accelerating modernization within one year, as provided for in the "80 day" timeline section.

***G. Extend layered security architecture approach to cloud services***

We concur with the recommendation and the approach of using a layered security architecture consisting of both Trusted Internet Connection (TIC) / Managed Trusted Internet Protocol Services (MTIPS) and continuous diagnostics and mitigation (CDM) services. This layered approach should be extended to include external continuous monitoring of cloud services' security so that agencies can be assured that "both-ends" of their cloud access are equally protected.

***H. Modernize data through advanced analytics and artificial intelligence***

PSC recommends that the final report discuss the role of data analytics and artificial intelligence in its targeted vision. The government can make better use data analytics and the vast amounts of data available today to enable informed decision making. Advanced analytics technologies for data aggregation, predictive analysis, pattern matching, etc. can improve security threat detection and prevention. The government should also leverage advances in artificial intelligence to improve network intrusion detection and identify security threats.

***I. Modernization via software-defined technologies and hybrid cloud solutions***

The final report should explicitly recognize the benefits of using software-defined technologies and hybrid cloud solutions where appropriate to modernize and secure IT systems. One challenge of cloud migration is the complexities that arise from networking between legacy and public cloud platforms. A combination of software-defined architectures and infrastructure-focused hybrid cloud platforms can provide the basis for more rapid and cost-efficient modernization for many federal agencies. This approach can also be a solid stepping stone from which the higher-order benefits of cloud computing can be realized.

***J. Terminate systems that support outdated policies or business processes, especially those that can be automated or provided by as-a-service technologies***

Agency assessments of their application portfolios will help identify applications that should be retired or consolidated with others. Some systems running on old technology are likely being

kept alive out of either inertia or for a single module or data set that must be maintained. There is a significant opportunity to optimize agency application portfolios and retire obsolete legacy systems where possible and/or replace systems with modern technologies. OMB should enforce the requirement for an Operational Assessment on any system older than five years to determine whether the underlying program need still exists and, if so, whether a cloud-based or shared service can perform the tasks cheaper and better than an investment to modernize that system. For systems over ten years old, OMB should require agencies to conduct an analysis of alternatives including as-a-service solutions, shared services, outsourcing, and business process modernization enabled by new technology.

***K. OMB should work with the Congressional Budget Office (CBO) on “scoring” of IT modernization cost savings***

One of the key challenges for both short- and long-term success of the IT modernization plan is ensuring the availability of adequate funding and personnel resources. The method the Congressional Budget Office (CBO) uses to calculate the cost of IT-related modernization legislation is another impediment to achieving the vision for federal IT outlined in the draft report. CBO typically analyzes proposed legislation by estimating spending outlays likely to result from legislation without including the likely offsetting cost reductions derived from IT modernization. Our understanding is that OMB does not “score” enacted legislation or individual IT investments in the same way. While IT is not the only area where OMB and CBO have a different method for “scoring” legislation, OMB should discuss the merits of its approach with CBO. In the long term, OMB should work with Congress to develop scoring rules for multi-year savings from agency IT modernization that are more consistent with how capital accounting for IT-enabled savings is done in the private sector.

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## **2. What are major attributes that should not be included in the targeted vision?**

***A. Remove recommendation to halt upcoming procurement actions on all legacy IT***

PSC recommends removing the statement in the preface that “agencies should consider immediately pausing or halting upcoming procurement actions that further develop or enhance legacy IT systems identified that need modernization” and that agencies should consider a “cut and invest” approach that reallocates funding from obsolete legacy IT systems. While it makes little sense to buy new computers systems for applications that are no longer relevant or needed, abruptly halting all upcoming procurement actions related to legacy systems is not feasible given the large amount of legacy IT still in use across the federal government. Given the difficulty in allocating resources and the length of the federal acquisition lifecycle, pausing procurements or reallocating resources to other procurements may be difficult to execute and could adversely impact agency operations. Delaying the work on such contracts could increase security exposure of the systems being modernized and negatively impact the continuity of services. Such actions, if to be taken, must be done after careful analysis of the benefits and risks. OMB should instead use its role in the annual budget process to ensure that agencies implement modernization plans and focus on results that matter to citizens. Regular progress

reports should be included on the publicly available websites, such as Results.gov and the IT Dashboard ([www.itdashboard.gov](http://www.itdashboard.gov)).

***B. Delete references to specific companies and solicit input from more than just CSPs***

The Office of American Innovation (OAI) should not limit participation in the proposed follow-up summit to the IT CEO summit to only interested CSPs and should not cite any specific company by name. Cloud technologies are often acquired as part of broader solutions, or in conjunction with additional services that CSPs do not provide, such as deployment, configuration and integration services. Experienced federal contractors that are not CSPs can also offer valuable guidance and perspectives to help make the acquisition pilot a success. Trade associations with extensive experience and broad-based membership, such as PSC, which represents CSPs mentioned in the draft report as well as many other IT services providers, can also offer broad perspectives to help inform ATC, OAI and OSTP's acquisition reform efforts.

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**3. Are there any missing or extraneous tasks in the plan for implementing network modernization & consolidation?**

***A. Change numerous data gathering and reporting recommendations to action-oriented recommendations***

Appendix F lists the 44 draft recommendations included in the report, yet most of these refer to gathering data, creating reports, updating metrics, etc. These initiatives may be necessary steps but should be combined with more forceful recommendations to take actions to achieve better progress toward IT modernization across the federal government. Moreover, OMB should incorporate as much new data gathering as possible into the existing PortfolioStat review process to streamline and reduce reporting burdens on agencies. OMB should also update the IT Dashboard ([www.itdashboard.gov](http://www.itdashboard.gov)) with new data and metrics used to evaluate progress.

***B. Include IT, cybersecurity and acquisition workforce recommendations***

The draft report should include recommendations to improve speed, flexibility, and agility within the federal IT and acquisition workforce. In interviews for our annual Federal CIO Surveys, government IT leaders frequently note the importance of their agencies' workforce and culture in achieving successful outcomes. The government, however, faces difficulties to recruiting and retaining skilled cybersecurity professionals. (See, for example, the 2016 GAO report "Federal Chief Information Security Officers: Opportunities Exist to Improve Roles and Address Challenges to Authority," available at <http://www.gao.gov/products/GAO-16-686>.) Contractors can provide workforce solutions to federal agencies when the right contracting approaches are used. The final report should recommend updating GSA Schedule 70 and other contract vehicles with additional labor categories and specialized pricing to enable agencies to procure the necessary skills to comply with efforts to improve agencies' cybersecurity posture. The unchecked growth in security clearance backlogs, which greatly hinders the ability to hire government and contractor personnel for IT and cybersecurity positions, must also be addressed in the final report.



***C. Consolidation beyond small agencies' use of Enterprise Infrastructure Solutions (EIS)***

The draft report also includes recommendations for immediate action relating to shared services and to acquisition matters. For example, the draft report recommends that GSA provide a feasibility assessment and roadmap for smaller agencies to use the Enterprise Infrastructure Solutions (EIS) telecommunications and network infrastructure requirements. While EIS provides a significant opportunity for all agencies, it is only one potential solution. There may be additional areas of opportunity beyond EIS to consolidate cybersecurity services and products. The final report should encourage small agencies to evaluate resources available from not only GSA but also other federal agencies to determine how best to meet their needs. Rather than presuming that consolidation will lead to the desired outcomes, agencies should make an economic and business analysis to validate that presumption.

***D. Require an inventory of agencies' use of unsupported hardware and software***

The final report should explicitly mention modernizing unsupported hardware as well as software in its outline of the future state of federal IT. Agencies should inventory and report to OMB their current IT hardware and software that is at or past "end of life" or unsupported by the vendor.

***E. Engage IT industry early and often***

Currently, many agencies do not engage with or meet with industry about best practices before issuing Requests for Proposals (RFPs). The final report should direct agencies to collaborate and share best practices with industry to increase awareness of innovative private-sector solutions and perspectives. By requiring market research, industry outreach and collaboration sessions, OMB could improve the quality of industry engagement by federal IT and program managers. ATC should further consider requiring outreach and industry collaboration in General Services (GS) position descriptions and annual performance plans.

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**4. Are there any missing or extraneous tasks in the plan for implementing shared services to enable future network architectures?**

***A. Emphasize private sector role in expanding shared services opportunities***

The draft report correctly notes that aggressively modernizing federal IT systems will require, and benefit from, much greater use of shared services and commercial capabilities across the Federal Government. PSC strongly supports the appropriate use of shared services by agencies. However, the final report should emphasize that the private sector has an opportunity to offer those services in conjunction with an agency provider or as its own service. The focus should be on the benefits provided rather than who furnishes the shared service.

***B. Do not use category management to define future agency IT needs or spending***

The draft report properly recognizes the differences between shared services and category management. Category management is an essential management tool to analyze agency past

spending patterns to determine whether there are common patterns within an agency or across government that could be consolidated. Currently, GSA is the lead federal agency for the IT category. However, category management is only able to look backwards at spending that has already taken place. It is not always a good predictor of agency future needs or future spending. Particularly with rapidly evolving technology, agencies and policymakers need to be mindful that past spending may not be the most appropriate approach to meet future needs. In addition, we do not view category management as also driving acquisition strategies. Despite current initiatives to designate certain contracts as “best in class,” we believe that the acquisition strategy to meet agency needs must be independent from the spending analysis. When the two are linked, significant alternatives may be overlooked or not adequately considered.

***C. Include more action-oriented recommendations to expand the use of shared services***

The implementation plan in the draft report addresses only three key areas as pivotal for accelerating the move to shared services: (1) enabling the use of cloud services and infrastructure; (2) accelerating adoption of cloud email and collaboration tools; and (3) providing additional and improving existing shared services. We are concerned that the draft report has too many reports and data calls and too few directives for actions. We separately address below the acquisition pilot program discussed in Appendix D of the draft report.

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## **5. What is the feasibility of the proposed acquisition pilot?**

***A. Expand cloud-based email pilot and validate assumptions it is based on***

The proposed acquisition pilot described in Appendix D may provide useful data but should be expanded to better demonstrate the value of shared services approaches. Cloud-based email may be a better example of “commodity IT” rather than a shared service. While we welcome an initial focus on this specific cloud service, the pilot will provide only limited results that can be applied to other cloud services or beyond. Cloud email has rapidly become one component of integrated cloud-enabled communications. Today, for example, many companies purchase email, web teleconferencing, voice, and collaboration tools together as a package. Rather than just cloud email, the acquisition pilot could take advantage of current integrated communications packages available from industry. The assumptions in Appendix D should also be validated. For example, while industry is certainly willing to “come to the table” and collaborate with government, the acquisition pilot must address the existing federal acquisition provisions that inhibit such collaboration.

***B. Volume pricing and pricing transparency***

Given previous successes through past licensing efforts including the DoD Enterprise Software Initiative (ESI) and the GSA Smart Buy effort, the opportunity exists to fast track additional licensing efforts/agreements. That said, the government must also ensure that licensing agreements, once negotiated, are mandated for use so that companies can gain expected revenue from the agreement. Both companies and federal agencies must be equally

committed to the use of these agreements. As currently worded, the acquisition pilot demands more commitment from industry than from the government to undertake the pilot and then use the resulting agreement. Industry participants will be required to offer a price based on bulk purchasing by agencies, but there is no requirement that government agencies actually purchase in sufficient volume to meet the vendor's sales expectations. This situation can also occur with government-wide acquisition contracts (GWACs) that attempt to leverage market forces to drive government-wide volume pricing. The acquisition pilot could be improved by requiring participating agencies to purchase in sufficient quantities from the selected companies that offer the best volume pricing. Alternatively, the pilot could provide a significant minimum revenue guarantee for vendors to leverage their volume pricing strategies.

Volume purchasing is also only one component of a vendor's pricing strategy and an agency's buying decisions. As we have seen with the GSA Transaction Data Rule (and related "prices paid" transparency initiatives), the actual price paid may be less important than the terms and conditions under which such prices are offered. Unless these essential terms and conditions can also be addressed, there is a reduced benefit to future purchasers of having earlier prices available to them. Finally, we have reservations about making this information available outside the government for similar reasons.

### ***C. Getting industry buy-in and feedback***

We fully concur on the importance of getting industry feedback and buy-in, including by having a follow-on summit with interested cloud service providers (CSPs). We strongly recommend that this feedback also include both the technical and contracting teams that will be covered by the pilot program. As noted above, OAI should also not limit participation in the proposed follow-up summit to the IT CEO summit to only interested CSPs. Experienced federal contractors that are not CSPs can also offer valuable guidance and perspectives to help make the acquisition pilot a success. Trade associations with extensive experience and broad-based membership, such as PSC, which represents CSPs mentioned in the draft report as well as many other IT services providers, can also offer broad perspectives to help inform ATC, OAI and OSTP's acquisition reform efforts. PSC is ready and willing to act as a collaborator with ATC or to convene interested providers in an "industry-only" work session to develop comments on both the assumptions and the outlines of the pilot program.