

MODERNIZING GOVERNMENT TECHNOLOGY ACT OF 2017

MAY 17, 2017.—Committed to the Committee of the Whole House on the State of
the Union and ordered to be printed

Mr. CHAFFETZ, from the Committee on Oversight and Government
Reform, submitted the following

R E P O R T

[To accompany H.R. 2227]

[Including cost estimate of the Congressional Budget Office]

The Committee on Oversight and Government Reform, to whom
was referred the bill (H.R. 2227) to modernize Government infor-
mation technology, and for other purposes, having considered the
same, report favorably thereon without amendment and rec-
ommend that the bill do pass.

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COMMITTEE STATEMENT AND VIEWS

PURPOSE AND SUMMARY

H.R. 2227, the Modernizing Government Technology (MGT) Act
of 2017, authorizes two types of funds for the purpose of modern-
izing the federal government's legacy information technology (IT)

and to incentivize IT savings in federal agencies. The bill authorizes all Chief Financial Officer (CFO) Act agencies to establish agency-specific IT modernization funds and the U.S. Office of Management and Budget (OMB) to oversee a government-wide IT modernization fund in the U.S. Department of Treasury to be administered by the General Services Administration (GSA).

BACKGROUND AND NEED FOR LEGISLATION

H.R. 2227, the Modernizing Government Technology (MGT) Act of 2017, is the culmination of the Committee's oversight work in the 114th and 115th Congresses, including hearings and reporting on legacy IT, and an investigation by the Committee into a federal agency data breach.

GAO 2015 High Risk Report. On February 11, 2015, the Committee held a hearing on the U.S. Government Accountability Office's (GAO) 2015 High-Risk Series report. For the first time, GAO had added "Improving the Management of IT Acquisitions and Operations" to its biannual "High Risk" list.¹ The 2015 GAO High-Risk Series report highlighted several general areas of concern it deemed critical to improving IT acquisition and realizing cost savings, including IT spending on operations and maintenance (O&M). GAO found that agencies spent over \$80 billion annually on IT investments, but over 75 percent of the \$80 billion went towards operations and maintenance of legacy IT. Because there is an increasing amount of O&M funding spent on legacy programs, less funding is available for development.

Legacy IT in 2015

In December 2015, the Committee sent a bipartisan and bicameral letter to agencies requesting information from agencies on (1) mission-critical systems in need of modernization; (2) oldest programming languages in use; (3) top five oldest IT hardware/infrastructure in use; (4) unsupported software and operating systems; (5) the number of decommissioned legacy systems over the last five years; and (6) IT staffing information.²

Mission Critical Systems in Need of Modernization. Generally, agencies provided dates for modernizing mission critical systems in need of modernization, but five agencies declined to provide this information for all systems identified. Agencies also reported spending a total of nearly \$23 billion in O&M costs on these systems over the last three years.

Oldest Programming Languages. Agencies reported over 930 million lines of code using more than 70 legacy programming languages. Those included: 424 million lines of 2000-era Active Server Pages code; 156 million lines of 1960s-era Common Business Oriented Language code; 136 million lines of 1960s-era Fortran code; and 62 million lines of 1970s to 2000-era C, C++, and C#. ³ The Committee learned that NASA alone uses 51 different programming languages.⁴ Agencies reported the languages requiring the

¹ Gov't Accountability Office, GAO-15-290, 2015 GAO High Risk Series: An Update (2015).

² Letter from the Hon. Jason Chaffetz, Chairman, H. Comm. on Oversight & Gov't Reform, Hon. Ron Johnson, Chairman, S. Comm. on Homeland Security & Gov't Affairs, et. al, to federal agencies (Dec. 22, 2015) (letter and agency responses on file with the Committee).

³ *Id.*

⁴ *Id.*

most staff to support were COBOL, with 1,085 employees, and Fortran, with 613 employees.

Infrastructure/Hardware in Need of Modernization. Ten agencies did not indicate a planned date for modernizing or replacing at least one outdated IT component.

Unsupported Software and Operating Systems. Agencies reported over 550 unsupported systems or software applications. The oldest reported unsupported software is a Fortran compiler that was last supported in 1991. Agencies also reported still using Windows 3.1 (released in 1992 and last supported by Microsoft in 2001), Windows NT (released in 1993 and last supported by the vendor in 2004), Windows 95 (released in 1995 and last supported by the vendor in 2001), and Windows XP (last supported in 2014 and released in 2001). The Department of Treasury (Treasury) reported the largest number of unsupported software applications and operating systems at 121. DOD only reported two unsupported operating systems—Windows XP and Windows Server 2003.

IT Staff. Agencies reported 244,000 IT staff, including federal employees and contractors. Based on the total number of IT staff reported to the Committee, DOD employs 74 percent of the reported IT staff across the federal government. The Department of Veterans Affairs (VA) reported 13,036 IT staff, over five times the IT staff at NASA. Twelve agencies did not or were not able to provide details on contractor staff. Finally, the average age of IT staff reported to the Committee was 49.4 years old.

Legacy IT in 2016

In March 2017, the Committee sent a follow up letter to all CFO Act agencies requesting similar and updated information to the 2015 letter.⁵ A preliminary analysis of the information received from 14 agencies indicates that agencies continue to operate numerous outdated and insecure mission critical systems, use legacy programming languages with millions of lines of code, and deploy unsupported operating systems and software.

Mission Critical Systems in Need of Modernization. Six mission-critical systems were retired or modernized: DOD's Army Rock Island Arsenal Joint Manufacturing and Technology Center Manufacturing Execution System, DOD's Army Active Guard and Reserve Management Information System, the Department of Education's (Education) Direct Loan Consolidation System (DLCS), the General Services Administration's (GSA) Electronic Acquisition System (EAS)/Comprizon, GSA's National Electronic Accounting and Reporting (NEAR), and the Small Business Administration (SBA) Email Migration.

Oldest Programming Languages. COBOL is still the most-reported legacy language. The average obligations for supporting legacy programming languages over the past three years was over \$22 billion, among those reporting.

Infrastructure/Hardware in Need of Modernization. The 14 agencies identified 19 mission critical types of infrastructure or hard-

⁵Letter from the Hon. Jason Chaffetz, Chairman, and Hon. Elijah E. Cummings, Ranking Member, H. Comm. on Oversight & Gov't Reform, Reps. Mark Meadows, Will Hurd, Gerry Connolly, Robin Kelly; and Senator Ron Johnson, Chairman, and Senator Claire McCaskill, Ranking Member, S. Comm. on Homeland Security and Gov't Affairs and Senators Jerry Moran, and Tom Udall to federal agencies (March 13, 2017) (Letter and agency responses on file with the Committee).

ware that need to be modernized. Of the 19 infrastructure or hardware items, six also contain Personally Identifiable Information (PII).

Unsupported Software and Operating Systems. In 2016, agencies reported a total of 555 unsupported systems or software. In 2017, Education reported a decrease from 56 to seven. NASA has reported an increase from 95 to 192.

GAO Report and Committee Hearing on Legacy IT. On May 25, 2016, the Committee held a hearing, “Federal Agencies’ Reliance on Outdated and Unsupported Information Technology: A Ticking Time Bomb,” to discuss legacy IT and the GAO findings in a report entitled, “Federal Agencies Need to Address Aging Legacy Systems.”⁶ The Report assessed 26 agencies’ IT O&M spending plans for Fiscal Year (FY) 2010 through 2017 and reviewed in detail the IT spending and individual investments for 12 of these agencies. GAO reported that the federal government spent about 75 percent of the total annual IT budget (over \$80 billion) for FY 2015 on O&M investments and such spending had increased over the past seven fiscal years. GAO also reported that federal legacy IT investments are becoming increasingly obsolete with outdated software languages and hardware parts that are not supported.

The following are key GAO findings from the report: (1) 5,233 of approximately 7,000 federal IT investments are spending all of their funds on O&M activities; (2) O&M spending has increased over the past seven fiscal years; and (3) In FY 2015, the top ten IT investments were in O&M spending totaling \$12.5 billion, including \$4.38 billion by HHS for the Centers for Medicare and Medicaid Services’ Medicare Management Information System, and \$1.25 billion by DOD for the Defense Information Systems Network.

Outdated Programming Languages and Unsupported Hardware. GAO also reported that federal legacy IT investments are becoming increasingly obsolete with outdated software languages and hardware parts no longer supported by the original vendor. GAO found several agencies (including the U.S. Department of Agriculture, the Department of Homeland Security, HHS, the Department of Justice, Treasury, and VA) reported using COBOL to program legacy systems. COBOL was first developed in the late 1950s and early 1960s. GAO also noted that all of the 12 agencies selected for detailed review reported using unsupported operating systems and components in their FY 2014 Federal Information Security Management Act (FISMA) reports. According to GAO, the following Departments also reported using 1980s and 1990s Microsoft operating systems that have not been supported by the vendor in almost ten years: the Department of Commerce, DOD, Treasury, HHS, and VA.

The GAO report provided examples of legacy investments and systems over 50 years old.⁷ For example, the IRS reported that the Individual Master File (IMF), which is the authoritative data source for individual taxpayer information, is over 50 years old. According to the IRS Chief Information Office (CIO), the IRS is work-

⁶ Gov’t Accountability Office, GAO-16-468, Federal Agencies Need to Address Aging Legacy Systems (2016).

⁷ Some of these systems and investments may have individual components newer than the age reported by the agency.

ing to modernize the IMF and has developed a process to translate Assembly code to Java to facilitate this modernization.⁸

In another example, the DOD reported that its Strategic Automated Command and Control System is over 50 years old. This system coordinates the operational functions of the U.S. nuclear forces and is run on an IBM Series/1 computer (from the 1970s) and uses eight-inch floppy disks. GAO noted that the 8-inch floppy disk was first introduced in the 1970s and only holds 80 kilobytes of data. A single modern flash drive can hold the same amount of data as 3.2 million floppy disks. DOD is modernizing this system with updated data storage, port expansion, portable terminals, and desktop terminals with completion scheduled at the end of FY 2017.

Modernization Planning for O&M Investments. GAO examined several O&M investments that agency CIOs rated as moderate or high risk to determine whether agencies had replacement or modernization plans. GAO found that of the 23 O&M investments they reviewed, agencies *did* have plans to replace or modernize 19 of these investments. GAO acknowledged these plans but challenged the quality of these plans for 12 of the 19 O&M investments because the plans were general or tentative and did not provide specific timelines, activities to be performed, or functions to be replaced or enhanced. For example, GAO identified two O&M investments for HHS with moderate risk ratings (Centers for Medicare and Medicaid Services Medicare Appeals System (moderate) and Trusted Internet Connection Investment (moderate) where HHS has general modernization plans that lacked detail.

GAO reported that OMB has recognized the upward trend in O&M spending and has attributed this trend to several factors, including: (1) O&M activities require maintaining legacy hardware, which costs more over time; (2) costs to maintain applications and systems that use older programming languages have increased since programmers with these skills are increasingly rare and more expensive; and (3) often when there is uncertainty as to how to characterize spending, agencies opt to characterize such investments as O&M because these attract less oversight, require less documentation, and have a lower risk of reduced funding.

Chairman Chaffetz on Legacy IT. During the May 25, 2016 Committee hearing on legacy IT, Chairman Chaffetz noted:

Federal agencies spend over \$80 billion—\$80 billion—annually on IT, and it largely doesn’t work. With the majority of this spending focused on maintaining and operating legacy systems, this is obviously a major concern for the United States Congress and the operation of the Federal Government.

Such spending on legacy IT results in higher costs and security vulnerabilities where old software and operating systems are no longer supported by vendors. The federal government is years, and in some cases decades, behind the private sector.⁹

⁸ Committee staff call with Terry Milholland, IRS CIO (May 19, 2016).

⁹ *Federal Agencies’ Reliance on Outdated and Unsupported Information Technology: A Ticking Time Bomb* Hearing Before the H. Comm. on Oversight & Gov’t Reform, 114th Cong. (May 25, 2016).

Chairman Chaffetz added, “[W]e have a long way to go to get from COBOL to the cloud, but I am committed to helping us get there.”¹⁰

Testimony of the Federal CIO. On May 25, 2016, in testimony before the Committee, then-federal CIO Tony Scott outlined the challenges associated with legacy IT, described actions the Administration had taken to address this problem, and explained how an IT Modernization Fund (ITMF) could improve the situation.¹¹ Mr. Scott said legacy IT poses significant security and operations risks and said, “Absent timely action, the cost to operate and maintain legacy systems, as well as security vulnerabilities and other risks, will continue to grow.” Mr. Scott also described the advantages of the proposed ITMF process by saying it was analogous to a corporate capital committee in the private sector where IT investments are presented with a viable business case that demonstrates improved performance and lower costs for approval.

OPM Data Breach Lessons Learned and Legacy IT Recommendation. In September 2016, a report of the majority Committee staff, entitled *The OPM Data Breach: How the Government Jeopardized Our National Security for More than a Generation*, included a recommendation to “modernize existing legacy federal information technology assets.” Based on the investigation of the OPM data breach, the report found “there is a pressing need for federal agencies to modernize legacy IT in order to mitigate the cybersecurity threat inherent in unsupported, end of life IT systems and applications.”¹² The report illustrated this need for modernization by noting that OPM said their legacy systems were often not capable of accepting certain types of encryption.¹³

As a consequence, the report recommended that “[f]ederal agencies should utilize existing tools and Congress should consider new tools to incentivize the transition from legacy to modernized IT solutions.” The report noted that “[s]uch reliance on legacy IT can result in security vulnerabilities where old software or operating systems are no longer supported by vendors and aging IT infrastructure becomes difficult and expensive to secure.”¹⁴ H.R. 2227 authorizes new funding tools to jumpstart agency IT modernization efforts and incentivize agencies to realize cost savings through modernization.

Federal Agency Legacy IT Oversight and Related Developments in the 115th Congress. On March 27, 2017, President Donald J. Trump announced the creation of the White House Office of American Innovation (OAI). The OAI will make recommendations to the President on policies and plans that improve government operations and services, improve the quality of life for Americans now and in the future, and spur job creation.¹⁵

In response to introduction of the MGT Act on April 28, 2017, Reed Cordish and Chris Liddell, Assistants to the President and leaders of OAI, stated:

¹⁰ *Id.*

¹¹ *Id.*

¹² H. Comm. on Oversight & Gov’t Reform Majority Staff, *The OPM Data Breach: How the Government Jeopardized Our National Security for More Than a Generation* 19 (2016).

¹³ *Id.* at 25.

¹⁴ *Id.*

¹⁵ Press Release, the White House, President Donald J. Trump Announces the White House Office of American Innovation (OAI) (Mar. 27, 2017), available at <https://www.whitehouse.gov/the-press-office/2017/03/27/president-donald-j-trump-announces-white-house-office-american>.

We are excited about today’s introduction of the Modernizing Government Technology Act; this important bipartisan work, led by Rep. Will Hurd and Rep. Steny Hoyer, will enable significant progress to be made towards creating a more effective, efficient, and accountable government for all Americans.¹⁶

On March 28, 2017, the Subcommittee on Information Technology and the Subcommittee on Government Operations held a joint hearing, “*Reviewing Challenges in Federal IT Acquisition*” to discuss challenges in the current federal IT acquisition system, best practices from the private sector, and areas for IT acquisition reform. The Subcommittees heard testimony from a panel of witnesses that outlined some of the fiscal and security challenges posed by legacy IT, including former CIO for the IRS, Richard Spires.

Spires recommended the Committee reintroduce and enact the MGT Act and stated:

There are significant benefits for Agencies in having such budget flexibility, thus enabling them to shift resources saved through IT efficiencies into funding new modernization initiatives that have direct mission delivery impact. Further, having multi-year funding capability via a [working capital fund] enables program managers to more effectively plan and resource a program over multiple fiscal years.¹⁷

On May 1, 2017, President Donald J. Trump signed an Executive Order (EO) establishing the American Technology Council to “coordinate the vision, strategy and direction” of IT across government and provide advice regarding its use. The EO states, “Americans deserve better digital services from their Government. To effectuate this policy, the federal government must transform and modernize its information technology and how it uses and delivers digital services.”¹⁸

On May 11, 2017, President Donald J. Trump signed an Executive Order (EO) on “Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure.”¹⁹ The EO states:

- (i) The executive branch has for too long accepted antiquated and difficult-to-defend IT.
- (ii) Effective risk management involves more than just protecting IT and data currently in place. It also requires planning so that maintenance, improvements, and mod-

¹⁶Hurd to Introduce Revised IT Modernization Bill with White House Support, NextGov, Apr. 28, 2017, <http://www.nextgov.com/cio-briefing/2017/04/hurd-introduce-revised-it-modernization-bill-white-house-support/137420/>.

¹⁷Statement of Richard Spires, Former Chief Information Officer of the U.S. Department of Homeland Security and the Internal Revenue Service, Hearing Before the H. Comm. on Oversight & Gov’t Reform, 114th Cong. (Mar. 28, 2017).

¹⁸Presidential Executive Order on the Establishment of the American Technology Council, May 1, 2017, <https://www.whitehouse.gov/the-press-office/2017/05/01/presidential-executive-order-establishment-american-technology-council>.

¹⁹Presidential Executive Order on Strengthening the Cybersecurity of Federal Networks and Critical Infrastructure, May 11, 2017, <https://www.whitehouse.gov/the-press-office/2017/05/11/presidential-executive-order-strengthening-cybersecurity-federal>.

ernization occur in a coordinated way and with appropriate regularity.²⁰

The EO directs the Director of the American Technology Council to coordinate and complete within 90 days a report to the President from the Secretary of Homeland Security, the Director of OMB, and the Administrator of General Services, in consultation with the Secretary of Commerce, as appropriate, regarding modernization of federal IT.

Case Studies and Cost Saving Opportunities. In July 2016, OMB conducted an IT modernization case study and found that the majority of agencies who moved to cloud-based collaboration solutions experienced cost savings after only several years of investment. Larger agencies like DOJ invested \$19 million in IT modernization and achieved subsequent savings of \$10 million per year.

Additionally, the National Oceanic and Atmospheric Administration (NOAA) was able to migrate to Google Apps within six months and decommission its legacy servers over the next two years to achieve \$3.1 million in cost savings. GSA reported that after migration “added value was immediately apparent”²¹ with improved productivity and communication, resulting in \$3.7 million per year in savings. Overall, agencies were able to quickly recoup the cost of migration to cloud-based collaboration solutions and ultimately experienced significant cost savings.

Legislation to Address the Challenge of Legacy IT. In 2016, Representative Hurd introduced H.R. 6004, the Modernizing Government Technology Act of 2016. H.R. 6004 adopted slightly modified language from two IT modernization bills previously introduced in the 114th Congress. Then in the 115th Congress, Representative Hurd introduced H.R. 2227, the Modernizing Government Technology Act of 2017. H.R. 2227 is substantially similar to H.R. 6004 with a few modifications.

Like H.R. 6004, H.R. 2227 authorizes all CFO Act agencies to establish an IT modernization fund managed by the agency CIO. However, the language was modified in H.R. 2227 to state that agencies “may” establish such funds because some agencies already have working capital funds that could be used for IT modernization, and the Committee wanted to avoid a duplicative requirement. The Committee believes that absent a compelling reason, all covered agencies should establish working capital funds for IT modernization. Creating similar working capital fund capabilities at all covered agencies will encourage consistency and sharing of best practices and help avoid duplication across the federal government.

In addition, H.R. 2227 authorizes a central Technology Modernization Fund (TMF) in the Department of Treasury to be managed by OMB and a board of experts, with the Commissioner of the Technology Transformation Service of GSA executing an administrative role.

H.R. 2227 authorizes \$250 million for each of fiscal years 2018 and 2019 for the TMF. The Committee views this funding as seed money to kick start modernization efforts at agencies. The Committee expects to see results in terms of savings and increased security before authorizing more funding.

²⁰*Id.*

²¹The Office of Mgmt & Budget, *IT Modernization Case Study* (July 2016).

The TMF Board responsibilities include identifying opportunities to improve or replace multiple IT systems with a smaller number of IT systems common to multiple agencies. The Committee encourages the TMF Board and the Commissioner of the Technology Transformation Services of GSA to consult with the federal CIO Council in their efforts to identify such opportunities.

The Committee expects the TMF Board to focus on modernization of existing systems when shifting to IT systems that multiple agencies could leverage. The TMF is established as a funding mechanism available to covered agency CIOs, through an application process to fund IT projects that provide substantial and direct transformation away from legacy IT toward more efficient modernized technologies and services. Given the critical IT needs of the federal government, the TMF should be used solely to modernize federal IT systems. The Committee notes that it is not intended to be within the purview of the TMF Board to evaluate agency modernization initiatives funded by the agency's own IT Working Capital Funds.

H.R. 2227 clarifies the authorized uses of agency IT modernization funds in section 3(a)(3). Section 3(a)(3)(D) provides agencies the option to use the agency IT modernization fund to reimburse the TMF should the agency have received such funding through a successful application to the TMF Board. This language makes clear that such reimbursement to the TMF may *only* be made with the approval of the covered agency CIO. Agency CIOs are expected to exercise independent judgment in evaluating whether to use their IT modernization fund to reimburse the TMF.

H.R. 2227 also encourages agencies to consider, to the extent practicable, guidelines developed by OMB and the TMF Board for purposes of evaluating IT modernization projects to be funded by the agency IT modernization fund. This provision is not intended to establish a mandatory requirement, but it is intended to facilitate the sharing of best practices in evaluating IT modernization projects.

H.R. 2227, section 3(b) and section 4(a)(7) establish reporting requirements for individual agency IT modernization funds and the TMF. The Committee considers these reporting requirements essential to maintaining transparency on the use of these funding mechanisms and expects timely updates of this information on a public website. Further, the Committee encourages the submission of information on cost savings for projects funded through these mechanisms.

H.R. 2227 defines a legacy information system to mean "an outdated or obsolete system of information technology." The Committee acknowledges this is a broad definition, but expects covered agency CIOs and the TMF Board to prioritize modernization of legacy IT systems that pose significant security and operational risks. Further, a significant indicator that an IT system is outdated or obsolete—or falls within the definition of legacy IT systems in H.R. 2227—is that it is no longer being supported by an original vendor or manufacturer.

As a general matter, it should be noted that H.R. 2227 provides tools to address the challenge of legacy IT that, in conjunction with the enhanced CIO authorities enacted in the Federal IT Acquisition

Reform Act (FITARA),²² should drive agency modernization initiatives. H.R. 2227 is intended to build on FITARA and empower and hold accountable covered agency CIOs to pursue IT modernization. The covered agency CIO refers to the CIO with primary authority over the full agency IT portfolio and who reports to the agency head or senior management of the covered agency.

LEGISLATIVE HISTORY

On April 28, 2017, Representative Will Hurd (R-TX) introduced H.R. 2227, the Modernizing Government Technology Act of 2017, or the MGT Act with Chairman Jason Chaffetz (R-UT) and Ranking Member Elijah E. Cummings (D-MD); Representatives Gerald Connolly (D-VA), Robin Kelly (D-IL), Ted Lieu (D-CA), Ro Khanna (D-CA), Derek Kilmer (D-WA), Barbara Comstock (R-VA), Kevin Yoder (R-KS), Scott Taylor (R-VA), and Kay Granger (R-TX). House Majority Leader Kevin McCarthy (R-CA), House Minority Whip Steny Hoyer (D-MD), Representatives Val Butler Demings (D-FL), Suzan DelBene (D-WA), Blake Farenthold (R-TX), Darrell Issa (R-CA), and C.A. Dutch Ruppersberger (D-MD) also joined as cosponsors.

On May 2, 2017, the Committee on Oversight and Government Reform ordered H.R. 2227 favorably reported to the House by voice vote.

In the 114th Congress, on September 13, 2016, Representative Hurd introduced H.R. 6004, the Modernizing Government Technology Act of 2016 with Chairman Jason Chaffetz (R-UT), Ranking Member Elijah E. Cummings (D-MD), Representatives Gerald Connolly (D-VA), Robin Kelly (D-IL), and Ted Lieu (D-CA). House Majority Leader Kevin McCarthy (R-CA) and Minority Whip Steny Hoyer (D-MD) also joined as cosponsors. On September 15, 2016, the Committee on Oversight and Government Reform ordered H.R. 6004 favorably reported by voice vote, with an amendment. On September 22, 2016, the House agreed to a motion to suspend the rules and passed H.R. 6004 by voice vote.

Also in the 114th Congress, two related bills were introduced that informed the text of H.R. 6004. These related bills were: (1) H.R. 4897, the Information Technology Modernization Act, which was introduced by Representative Hoyer (D-MD) on April 11, 2016; and (2) H.R.5792, the Modernizing Outdated and Vulnerable Equipment and Information Technology Act, which was introduced by Representative Hurd on July 14, 2016.

SECTION-BY-SECTION

Section 1. Short title; Table of contents

The short title of the bill is the “Modernization Government Technology Act of 2017.”

Section 2. Findings; Purposes

Section 2 makes findings and establishes the purposes of the bill.

Section 2(a) finds the following: (1) the federal government spends nearly 75 percent of its annual information technology (IT)

²²National Defense Authorization Act Fiscal Year 2015, P.L. 113-291, Title VIII, Subtitle D (Dec. 19, 2014).

budget on operating and maintaining existing legacy IT systems that can pose operational and security risks; (2) the GAO designated improving the management of IT acquisitions and operations to its biannual High Risk List and identified as a particular concern the increasing level of IT spending on Operations and Maintenance making less funding available for development or modernization; (3) the federal government must modernize federal IT systems to mitigate existing operational and security risks; and (4) the efficiencies, cost savings, and greater computing power offered by modernized solutions, such as cloud computing have the potential to (a) eliminate duplication and reduce costs, (b) address the critical need for cybersecurity by design, and (c) move the federal government into a broad, digital-services delivery model.

Section 2(b) states the purposes of the bill are to: (1) assist the federal government in modernizing federal IT to mitigate current operational and security risks; (2) incentivize cost savings in federal IT through modernization; and (3) accelerate the acquisition and deployment of modernized IT solutions, such as cloud computing, by addressing impediments in the areas of funding, development, and acquisition practices.

Section 3. Establishment of agency information technology systems modernization and working capital funds

Section 3(a)(1) provides authority to each CFO Act agency head to establish an information technology system modernization and working capital fund.

Section 3(a)(2) establishes the source of funds to be deposited in the IT working capital fund as reprogrammed and transferred funds made available in appropriations Acts subsequent to the date of enactment and consistent with applicable reprogramming law and guidelines of the Appropriations Committees; and discretionary appropriations funding made available subsequent to the date of enactment.

Section 3(a)(3) establishes that funds from the IT working capital fund may only be used to: (A) improve, retire, or replace existing IT systems in the covered agency to improve efficiency and effectiveness; (B) transition legacy IT systems at a covered agency to cloud computing and other innovative platforms and technologies, including those serving more than one covered agency with common requirements; (C) assist and support agency efforts to provide adequate, risk-based, and cost-effective IT capabilities that address evolving threats to information security; and (D) for reimbursement of funds transferred to the covered agency from the Technology Modernization Fund, established under section 4, with the approval of the agency CIO.

Section 3(a)(4) states an IT working capital fund may not be used to supplant funds provided for the operation and maintenance of any system already within an appropriation for the agency at the time the IT working capital fund is established.

Section 3(a)(5) requires the head of each agency to prioritize funds within the IT working capital fund to be used initially for cost savings activities approved by the agency CIO, in consultation with the Administrator of the Office of Electronic Government (i.e., the federal CIO). Paragraph (5) also authorizes the agency to reprogram and transfer any amounts saved as a direct result of such ac-

tivities for deposit into the applicable IT working capital fund, consistent with applicable law and guidelines of the Appropriations Committees.

Section 3(a)(6) allows any funds deposited into an IT working capital fund to be available for obligation for three years after the last day of the fiscal year in which such funds were deposited.

Section 3(a)(7) requires agency CIOs, in evaluating projects to be funded from the agency IT working capital fund, to consider to the extent practicable guidance established by the Office of Management and Budget (OMB), under Section 4(a)(1) for evaluating IT projects to be funded by the Technology Modernization Fund established at Treasury, overseen by OMB. Such guidance shall include factors such as strong business case, technical design, procurement strategy (including use of incremental software development practices), and program management.

Section 3(b) requires agencies to submit one year after enactment and every 6 months thereafter to OMB information on the agency's use of the IT working capital fund, including a list of IT investments funded by the fund and a summary by fiscal year of the obligations, expenditures, and unused balances of the fund; and requires OMB to make such information available on a public website.

Section 3(c) defines covered agency in accordance with section 901(b) of title 31, United States Code.

Section 4. Establishment of Technology Modernization Fund and board

Section 4(a)(1) establishes in the Treasury the Technology Modernization Fund (TMF) for technology-related activities to improve IT, to enhance cybersecurity across the federal government, and to be administered in accordance with OMB guidance.

Section 4(a)(2) authorizes the Commissioner of the Technology Transformation Service at the General Services Administration (GSA), in consultation with the federal CIO Council and with the OMB Director's approval, to administer the TMF.

Section 4(a)(3) requires that the use of TMF funds be in accordance with the recommendations of the Board and only for the following purposes: (A) to transfer such amounts to remain available until expended to the head of an agency to improve, retire, or replace existing federal IT systems to enhance cybersecurity and improve efficiency and effectiveness; (B) for the development, operation, and procurement of IT products, services, and acquisition vehicles for use by agencies to improve government-wide efficiency and cybersecurity; and (C) to provide services or work performed in support of the activities described in (A) and (B).

Section 4(a)(4)(A) authorizes to be appropriated to the Fund \$250 million in fiscal year 2018 and fiscal year 2019.

Section 4(a)(4)(B) authorizes the Fund to be credited with all reimbursements, advances, or refunds or recoveries relating to IT or services provided through the Fund.

Section 4(a)(4)(C) authorizes amounts deposited, credited, or otherwise made available to the Fund to be available for the purposes in Section 4(a)(3), as provided in appropriations Acts, until expended.

Section 4(a)(5) authorizes reimbursement to the Fund by: (A) payment by the agency for the product or services developed in accordance with paragraph (3)(B) or (C), which shall be a fixed amount by the Commissioner of the Technology Transformation Service at GSA (Commissioner); and (B) reimbursement by the agency for any Funds transferred to the agency for purposes of IT modernization projects under paragraph (3)(A), including any services or work performed in support of such transfer under paragraph (3)(C) and in accordance with the terms of the written agreement described in Section 4(a)(6).

Section 4(a)(5)(C) authorizes the Commissioner, in consultation with OMB, to establish the amounts to be paid by an agency and the terms of repayment for an agency's use of products or services developed in accordance with paragraphs (3)(B) or (C) at levels to ensure the solvency of the Fund, including operating expenses. The Commissioner is not authorized to change established amounts or terms of repayment, unless there is a review and approval from OMB.

Section 4(a)(5)(D) authorizes the Commissioner to obtain reimbursement from the agency by issuance of transfer and counterwarrants or other lawful transfer documents (supported by itemized bills), if payments are not made (i) within 90 days after expiration of a repayment period described in the written agreement in paragraph (6); or (ii) within 45 days after the expiration of the time period to make a payment under a payment schedule for a product or service developed under paragraph (3)(B).

Section 4(a)(6)(A) establishes a requirement for a written agreement prior to the transfer of funds to an agency under paragraph 3(A). The written agreement will document the purpose of the funding and the terms of repayment. The written agreement will be between the head of the agency and the Commissioner and for a period of not more than five years, unless approved by OMB. For any funds transferred to the agency under paragraph 3(A), these funds shall be transferred only on an incremental basis and will be tied to metric-based development milestones achieved by the agency.

Section 4(a)(6)(B) requires that incremental development practices be used for work funded by the Fund and that such funds only be transferred on an incremental basis, tied to metric-based development milestones achieved by the agency and as described in the written agreement.

Section 4(a)(7) requires OMB to publish and maintain a list of each project funded by the Fund on a public website not later than six months after enactment and to update not less than quarterly details of projects funded by the Fund including a project description, project status (including schedule delay and cost overruns), and financial expenditure data related to the project.

Section 4(b)(1) establishes a Board to evaluate proposals submitted by agencies for funding authorized under the Fund.

Section 4(b)(2) establishes Board responsibilities. The Board is responsible for:

1. Providing input to OMB for the development of processes for agencies to submit modernization proposals to the Board and to establish the proposal evaluation criteria by which proposals will be evaluated. Such evaluation criteria shall include

addressing the greatest security and operational risks having the greatest governmental-wide impact and having a high probability of success based on factors such as a strong business case, technical design, procurement strategy (including adequate use of incremental software development), and program management;

2. Making recommendations to the Commissioner to assist agencies in the further development and refinement of select submitted modernization proposals;

3. Reviewing and prioritizing, with OMB and the Commissioner's assistance, modernization proposals based upon criteria established in section 4(b)(2)(A);

4. Identifying, with the Commissioner's assistance, opportunities to improve or replace multiple IT systems with a smaller number of IT systems common to multiple agencies;

5. Recommending the funding of modernization projects in accordance with the uses described in subsection (a)(3);

6. Monitoring, in consultation with the Commissioner, progress and performance in executing approved Fund projects and if necessary recommending suspension or termination of funding based on factors such as failure to meet the terms of a written agreement; and

7. Monitoring operating costs of the fund.

Section 4(b)(3) establishes the membership of the Board as eight voting members.

Section 4(b)(4) establishes the Administrator of the Office of Electronic Government, known as the federal CIO, as Chair of the Board.

Section 4(b)(5) establishes as the permanent Board members the Chair and a senior GSA official with technical expertise in IT development and appointed by the GSA Administrator with OMB approval.

Section 4(b)(6) establishes additional members of the Board as the following: one employee from the National Protection and Programs Directorate in the Department of Homeland Security, appointed by the Secretary of Homeland Security; one employee from the Department of Defense, appointed by the Secretary of Defense; and four federal employees with technical expertise and appointed by OMB. Additional members of the Board will serve one-year terms renewable up to three times at the discretion of the appointing official.

Section 4(b)(7) prohibits additional pay, allowances, or benefits for members of the Board by reason of their services on the Board.

Section 4(b)(8) authorizes OMB and GSA to detail on a nonreimbursable basis any OMB or GSA personnel to the Board to assist in carrying out the functions of the Board.

Section 4(c)(1) provides generally that the Commissioner shall support the activities of the Board, provide technical support to agencies that receive TMF funding, and, with the concurrence of the Director, provide oversight of agencies that receive TMF funding.

Section 4(c)(2) establishes specific responsibilities for the Commissioner as the following: (A) provide direct technical support in the form of personnel services or otherwise to agencies that receive transferred amounts from the Fund for subsection (a)(3)(A) and (B)

activities; (B) assist the Board with the evaluation, prioritization, and development of agency modernization proposals; (C) perform regular project oversight and monitoring of approved agency modernization projects, in consultation with the Board and OMB to increase the likelihood of successful implementation and reduce waste; and (D) provide the Director with information necessary to fulfill reporting requirements in subsection (a)(7), including a list of projects funded by the Fund, on a public website to be updated not less than quarterly with a description of the project, project status, and financial expenditure data related to the project.

Section 4(d) defines agency in accordance with section 551 of title 5, United States Code.

Section 5. Definitions

Section 5 defines Cloud Computing, Commissioner (as the Commissioner of the Technology Transformation Service of the General Services Administration), Director (as Director of OMB), Information Technology, and Legacy Information Technology System.

EXPLANATION OF AMENDMENTS

No amendments to H.R. 2227 were offered or adopted during Full Committee consideration of the bill.

COMMITTEE CONSIDERATION

On May 2, 2017, the Committee met in open session and ordered favorably reported to the House, H.R. 2227, by voice vote, a quorum being present.

ROLL CALL VOTES

No roll call votes were requested or conducted during Full Committee consideration of H.R. 2227.

APPLICATION OF LAW TO THE LEGISLATIVE BRANCH

Section 102(b)(3) of Public Law 104–1 requires a description of the application of this bill to the legislative branch where the bill relates to the terms and conditions of employment or access to public services and accommodations. This bill establishes IT modernization funds at agencies and a centralized Modernization of Government Technology Fund at the Department of Treasury. As such, this bill does not relate to employment or access to public services and accommodations.

STATEMENT OF OVERSIGHT FINDINGS AND RECOMMENDATIONS OF THE COMMITTEE

In compliance with clause 3(c)(1) of rule XIII and clause (2)(b)(1) of rule X of the Rules of the House of Representatives, the Committee's oversight findings and recommendations are reflected in the descriptive portions of this report.

STATEMENT OF GENERAL PERFORMANCE GOALS AND OBJECTIVES

In accordance with clause 3(c)(4) of rule XIII of the Rules of the House of Representatives, the Committee's performance goal and

objective of the bill is to modernize Government information technology.

DUPLICATION OF FEDERAL PROGRAMS

In accordance with clause 2(c)(5) of rule XIII no provision of this bill establishes or reauthorizes a program of the Federal Government known to be duplicative of another Federal program, a program that was included in any report from the Government Accountability Office to Congress pursuant to section 21 of Public Law 111-139, or a program related to a program identified in the most recent Catalog of Federal Domestic Assistance.

DISCLOSURE OF DIRECTED RULE MAKINGS

The Committee estimates that enacting this bill does not direct the completion of any specific rule makings within the meaning of section 551 of title 5, United States Code.

FEDERAL ADVISORY COMMITTEE ACT

The Committee finds that the legislation does not establish or authorize the establishment of an advisory committee within the definition of Section 5(b) of the appendix to title 5 of the United States Code.

UNFUNDED MANDATE STATEMENT

Section 423 of the Congressional Budget and Impoundment Control Act (as amended by Section 101(a)(2) of the Unfunded Mandate Reform Act, P.L. 104-4) requires a statement as to whether the provisions of the reported include unfunded mandates. In compliance with this requirement, the Committee has included below a letter from the Congressional Budget Office.

EARMARK IDENTIFICATION

This bill does not include any congressional earmarks, limited tax benefits, or limited tariff benefits as defined in clause 9 of rule XXI.

COMMITTEE ESTIMATE

Clause 3(d)(1) of rule XIII of the Rules of the House of Representatives requires an estimate and a comparison by the Committee of the costs that would be incurred in carrying out this bill. However, clause 3(d)(2)(B) of that rule provides that this requirement does not apply when the Committee has included in its report a timely submitted cost estimate of the bill prepared by the Director of the Congressional Budget Office under section 402 of the Congressional Budget Act of 1974.

BUDGET AUTHORITY AND CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

With respect to the requirements of clause 3(c)(2) of rule XIII of the Rules of the House of Representatives and section 308(a) of the Congressional Budget Act of 1974 and with respect to requirements of clause (3)(c)(3) of rule XIII of the Rules of the House of Rep-

representatives and section 402 of the Congressional Budget Act of 1974, the Committee has received the following cost estimate for this bill from the Director of Congressional Budget Office:

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, May 12, 2017.

Hon. JASON CHAFFETZ,
*Chairman, Committee on Oversight and Government Reform,
House of Representatives, Washington, DC.*

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 2227, the MGT Act.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Matthew Pickford.

Sincerely,

KEITH HALL.

Enclosure.

H.R. 2227—MGT Act

Summary: H.R. 2227 would establish new budget accounts to fund efforts to modernize government information technology (IT) systems. The new accounts would include a working capital fund for each major federal agency that would be used to retire and replace older IT systems (legacy systems) and a single government-wide technology and modernization fund to update federal IT systems and make them more secure. H.R. 2227 also would establish a board of managers to oversee, evaluate, and monitor federal IT spending. Finally, H.R. 2227 would authorize the appropriation of \$250 million in each of fiscal years 2018 and 2019 to cover the costs of complying with the bill.

CBO estimates that implementing this legislation would cost \$500 million over the 2017–2022 period, assuming appropriation of the specified amounts. CBO estimates that enacting H.R. 2227 would not affect direct spending or revenues; therefore pay-as-you-go procedures do not apply.

CBO estimates that enacting H.R. 2227 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

H.R. 2227 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

Estimated cost to the Federal Government: The estimated budgetary effects of H.R. 2227 are shown in the following table. The costs of this legislation fall within all budget functions that include IT spending.

	By fiscal year, in billions of dollars—						
	2017	2018	2019	2020	2021	2022	2017–2022
INCREASES IN SPENDING SUBJECT TO APPROPRIATION							
Estimated Authorization Level	0	250	250	0	0	0	500
Estimated Outlays	0	83	167	167	83	0	500

Basis of estimate: For this estimate, CBO assumes that H.R. 2227 will be enacted near the end of fiscal year 2017, that the nec-

essary amounts will be appropriated each year, and that spending will follow historical spending patterns for similar investments in IT.

H.R. 2227 would authorize the appropriation of \$500 million over two fiscal years to establish a Technology Modernization Board and a Technology Modernization Fund. The board would consist of eight federal employees, two from the General Service Administration, one each from the Departments of Defense and Homeland Security, and four appointed by the Office of Management and Budget. The board's purpose would be to help improve information technology and cybersecurity systems across the government. Assuming appropriation of the authorized amounts, CBO estimates that implementing the bill would cost \$500 million over the 2018–2022 period.

The bill also would establish IT revolving funds in each major agency to be used to modernize information technology, primarily by replacing legacy systems with new technology. Individual agencies would be authorized to reprogram their discretionary appropriations to pay for new IT systems. In future years, any appropriated funds no longer needed to operate legacy systems because of changes made under the bill could be available to agencies, through the revolving funds, to upgrade other IT systems.

Pay-As-You-Go considerations: None.

Increase in long-term direct spending and deficits: CBO estimates that enacting H.R. 2227 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

Intergovernmental and private-sector impact: H.R. 2227 contains no intergovernmental or private-sector mandates as defined in UMRA and would impose no costs on state, local, or tribal governments.

Estimate prepared by: Federal Costs: Matthew Pickford; Impact on state, local, and tribal governments: Zach Byrum; Impact on the private-sector: Paige Piper/Bach.

Estimate approved by: H. Samuel Papenfuss, Deputy Assistant Director for Budget Analysis.