Table of Contents

Summary of Changes

The following revises references to background information and updates citations to reflect current guidance, including OMB Budget Guidance for FY 2019.

Large structural changes:

- Adjusted the major/non-major Investment categorization to apply only to Part 1: Mission and Part 2: Administrative Services and Support Systems Investments, not Part 3: IT Infrastructure, IT Security, and IT Management Investments
- Maintained requirement for Part 1 and Part 2 investments to complete Business Cases
- Discontinued requirement for Part 3 investments to report Business Cases, replacing with Standard Investment Reports corresponding to the type of Standard investment
- Maintained requirement for Part 1 and 2 investments to report CIO ratings
- Discontinued requirement for Part 3 investments to report CIO ratings, maintaining CIO ratings as an optional report on these investments
- Added Standard IT Investments for End User, Network, and Data Center and Cloud

Updates to Agency IT Investment Portfolio Summary requirements:

- Removed IT Portfolio Part 4: IT Investments for Grants and Other Transferred Funding to Non Federal Organizations for IT
- Added the following:
- Fields 29-55 to capture cost pool data for PY/CY/BY, optional except for Internal Labor cost pool
- Fields 56-85 to capture IT Tower data for PY/CY/BY, optional in September submission and required in January submission (except for Application and Delivery Towers)
- Field 89 to capture Data Center Inventory ID
- Fields 90-92 to capture cloud and non-cloud provisioned services costs
- Removed the following questions:
- Field 17: Cross Boundary Information Identifier
- Field 18: Supports Anti-Terrorism Related Information Sharing Environment
- Fields 31, 33, 35 Number of Government FTEs (now reported under Internal Labor)
- Fields 40-54: Provisioned IT Services Spending
- Fields 52-54: IT Security Spending fields (now included in fields 89-91 IT Tower costs)
- Field 55: End of Life Spending

Updates to Agency Provisioned IT Service Summary requirements:

- Removed this section as cloud and non-cloud provisioned services costs are added to the IT Investment Portfolio Summary

Updates to Agency Data Center Spending Summary requirements:

- No changes

Significant Updates to Major IT Business Case requirements:

- Maintained requirement for Part 1 and Part 2 investments to complete Business Cases
- Discontinued requirement for Part 3 investments to report Business Cases, replacing with Standard Investment Reports corresponding to the type of Standard investment
- Added question to collect Paperwork Reduction Act OMB Control Number
- Removed Section F for Cost & Capabilities (applicable for the IT Security and Compliance Standard Investment) as this is being added to the Investment Report section for the IT Security and Compliance Standard Investment
- Added Solicitation ID into Acquisition Strategy Section

Significant Updates to Major IT Business Case Detail requirements:

- Updated the list of SDLC methodologies
- Added drop down selection for Operational Analysis Table

Other:

- Added an Introduction to provide context to this year's guidance and phased approach to TBM elements
- Added a CIO Evaluation Report rather than collecting as part of the Business Case
- Updated language for IT Resource Statements
- Updated Appendix C. Added a list of common IT Budget – Capital Planning definitions.
- Updated Appendix D: Added IT Security definitions.
- Added Appendix E: Technology Business Management IT Cost Pool and IT Tower Definitions

POST-95% SOLUTION CHANGE LOG

This change log represents revisions made between the 95% solution release on May 12, 2017 and this final version.

Page	Edit
4	Add Change Log to Guidance
6	Edit graphic in Introduction (asterisks & standard investments alignment, reformatting)
10	Add "CIO Evaluations Report" to Question 2 Table
19	Delete "(these investments will not be publically viewable on the IT Dashboard)" from National Security Systems field. Further adjustments being considered for 100% solution.
24	Update to reflect "FY 2017"
24	Update Cost Pool section introduction to exclude Type 04 Funding Contributions
29	Update IT Tower section introduction to exclude Type 04 Funding Contributions
33	Delete word "Inventory" from "Data Center Inventory ID" name for Field 89
33	Add "This may be applicable to all or many investments within the IT portfolio. The Data Center ID(s) should be populated wherever there is a correlation of associated funding with the investments. The Data Center Standard Investments – Standard IT Infrastructure and Management Category: 05, will definitely have Data Center IDs." to Field 89
46	Update Life Cycle Costs Table in Business Case
55	Project Activity Table B.2.2 numbered incorrectly
63	Update Fields 4-6 of IT Security and Compliance Standard Investment Report to include contributions.
64	Change "Network Name" to "Investment Name"
65	Remove Network ID from Network Investment Report, Replace with UII
67	Delete requirements for five metrics from Network Standard Investment Report
69	Define Network Metrics , description updated
74	Replace "Data center or cloud" in Section C introduction with "end user"
76	Delete requirements for five metrics from End User Standard Investment Report
77	Correct Numbering Error in Projects Table of End User corrected
101	Define ISCM in Appendix C

INTRODUCTION

This introduction is designed to provide context and insight into the overarching strategy behind the changes outlined in this document. In the FY 2018 IT Budget – Capital Planning Guidance (CPIC Guidance), the Office of Management and Budget (OMB) introduced two standard investments: IT Security and Compliance and IT Management. These investments align with IT Towers in the Technology Business Management (TBM) Framework. Learning from this experience has proven to be important as OMB builds on those changes to position the IT budgeting process to deliver the right information at the right time and enhance decision-making process.

In this FY 2019 CPIC Guidance, OMB is implementing additional changes that build upon what was done in FY 2018 and charting a course that will continue through 2021 cycle and beyond. The cornerstone of this strategy is the TBM Framework.

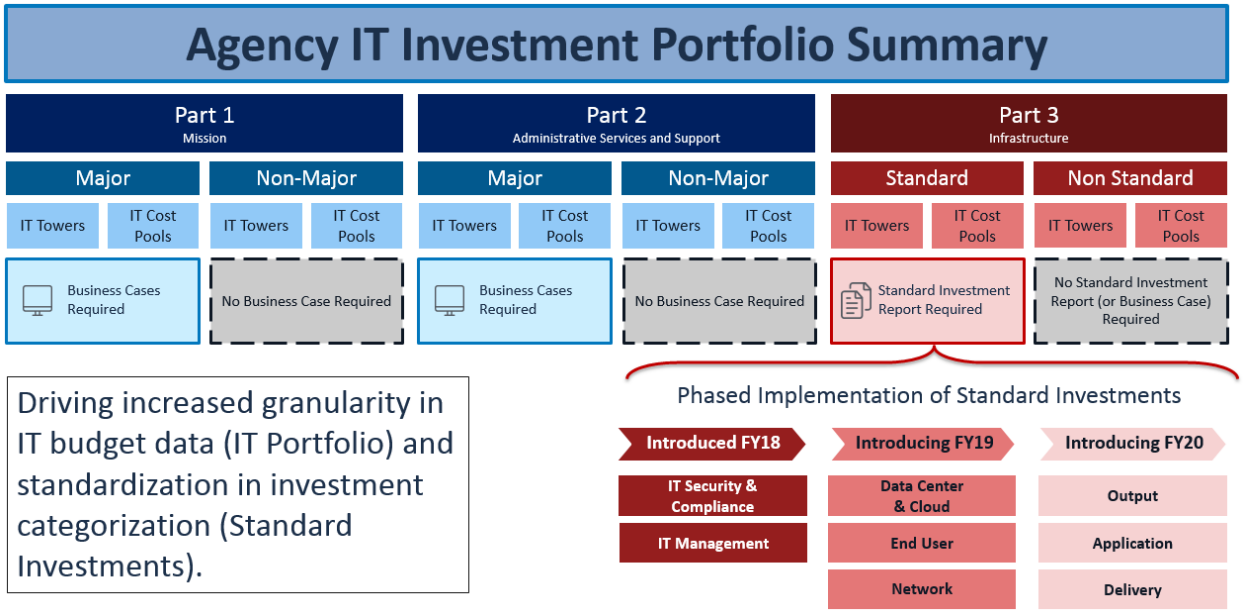
> *Technology Business Management (TBM) is a value-management framework instituted by CIOs, CTOs, and other technology leaders. Founded on transparency of costs, consumption, and performance, TBM gives technology leaders and their business partners the facts they need to collaborate on business aligned decisions. Those decisions span supply and demand to enable the financial and performance tradeoffs that are necessary to optimize run-the-business spending and accelerate business change. The framework is backed by a community of CIOs, CTOs, and other business leaders on the Technology Business Management Council.*[1]
>
> - From TBM Taxonomy Version 2.0, from the Technology Business Management Council.

OMB is leveraging this widely adopted taxonomy, used within private, public, and academic sectors and generating significant value. Leveraging a taxonomy that is proactively managed by a non-profit organization alleviates some of the need for the government to identify, define, and achieve consensus on the standards and terms used, thereby ensuring the viability and long-term sustainability of this system. In the future, Federal IT budget data aligned with the taxonomy will become the basis for the IT Capital Planning and Investment Control process.

OMB is planning to follow an incremental process to roll out these changes. There will not be a sudden, wholesale transformation, in which the lights are turned off on the legacy process and turned on the next day with a new TBM-based process. Instead, beginning with last year's Guidance, elements of the new TBM-based approach will be phased-in. Consistent with the Federal IT Acquisition Reform Act (FITARA) OMB Common Baseline Implementation (M-15-14), OMB recognizes that each agency has a different level of maturity and capability to absorb these changes and produce the right data. This is why OMB is emphasizing a multi-year strategy and approach in implementing changes to the CPIC process. The intent is that by sharing, agencies can understand the proposed changes, internalize them, and establish a program to advance IT budgeting into the 21st century.

[1] Technology Business Management Council, TBM Taxonomy Version 2.0, October 21, 2016

The below graphic contextualizes the types of structural changes introduced in this CPIC Guidance that will be phased in a multi-year approach.



The most striking change in this graphic is the change to the Part 3: IT Infrastructure, IT Security and IT Management investments. This is a change that OMB has been working towards for a number of years in policy, evidenced in the below list. Working to standardize Part 3 Investments consistent with TBM IT Towers (IT view) and gradually providing more granularity in all IT Investment costs through IT Cost Pools (financial view) and IT Towers, begins to align the categorization of costs with policies around CIO Authorities, commodity IT management, category management, and data center optimization among others.

- M-11-29, “CIO Authorities – Commodity IT”
- M-12-10, “Implementing PortfolioStat – Commodity IT Consolidation”
- M-13-02, “Improving Acquisition Through Strategic Sourcing”
- M-13-09, “FY 13 PortfolioStat Guidance”
- M-14-12, “Management Agenda Priorities”
- M-15-14, “Management and Oversight of Federal IT”
- M-16-02, “Category Management – Laptops and Desktops”
- M-16-12, “Category Management – Software Licensing”
- M-16-19, “Data Center Optimization Initiative (DCOI)”
- M-16-20, “Category Management – Mobile Devices and Services”

Equipping Chief Information Officers (CIOs)

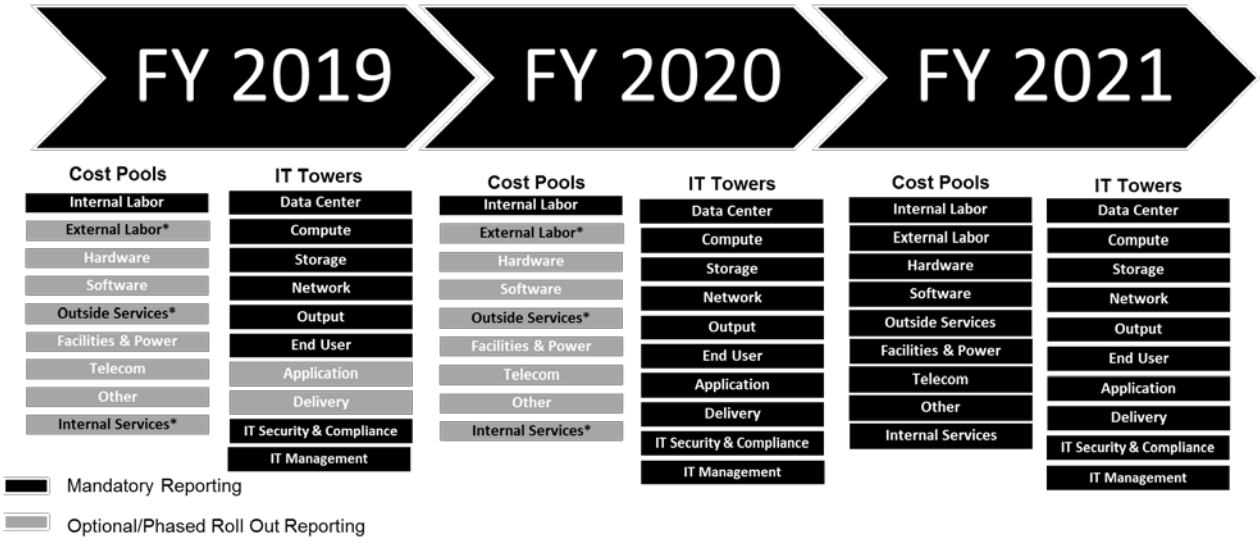
A key distinction of this year's Guidance is in linking performance data – which OMB has been collecting for a number of years on a range of commodity IT capabilities – with budget resources. The intent is to strongly support CIOs in implementing the authorities within FITARA. Aligning common investments like data centers, end user devices (e.g. laptops, desktops and mobile devices), software, and networks as well as linking budget and performance are critical to making informed decisions about the performance of these investments. Standard IT Investments and associated Investment Reports will capture relevant information to inform decisions and management oversight. Over time, much of the IT data captured within the Integrated Data Collection (IDC) process will be captured as part of the CPIC process to directly connect cost and performance.

Helping CIOs work more closely and in partnership with the Chief Financial Officers (CFOs) is also strategically important, and OMB will continue to leverage mechanisms, like Budget Data Requests (BDRs), in order to ensure that both of these communities are aware of the specific needs in budgeting for IT. Moreover, this year's Guidance introduces the practice of using IT Cost Pools to group spending. This TBM concept closely resembles Budget Object Classes (BOC)s and Sub-Object Classes (SOC)s and will be a rationalizing point for the CIO and CFO organizations. The shift to IT Cost Pools will therefore enable the budget identified by the CIO to be reconciled with the budget submitted by the CFO.

While the opportunity to leverage the IT Cost Pools is promising, OMB recognizes that each agency has a different level of maturity, capability, and resources to meet this change. Therefore, the IT Cost Pool data, while expected to be valuable, is indicated as optional in this guidance. All agencies should endeavor to report the IT Cost Pool data to the greatest extent practical. Some agencies have already been working to achieve this or a closely related capability. Agencies that lack the capabilities or resources to deliver this data should consider what changes are necessary to achieve it and take steps to align reporting with the IT Cost Pools.

While many of the fields introduced are optional, agencies are strongly encouraged to begin reporting these fields as soon as possible. The extended timeframe will afford agencies the opportunity to understand implementation challenges and work directly with OMB to address them before all IT Cost Pools, IT Towers, and Part 3: IT Infrastructure, IT Security, and IT Management Standard Investments and associated IT Investment Reports are required. While these fields are optional, the data will not be made public on the IT Dashboard. The phased approach is depicted in the below illustrations.

TBM IT Cost Pools and IT Towers Phased Implementation



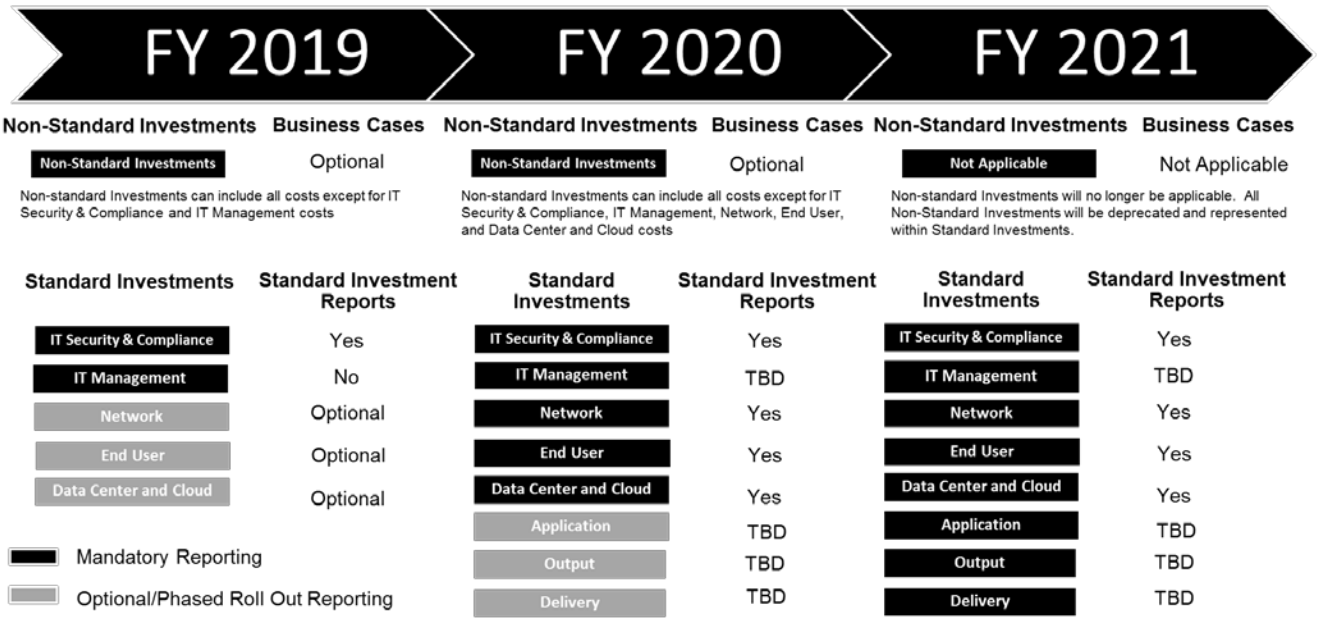
All Investments should work to disaggregate the total investment costs to both IT Cost Pools (financial view) and IT Towers (IT view). Investments may not have costs associated with all IT Cost Pools and IT Towers. The applicable fields should be populated.

FY 2019 Requirements for IT Cost Pools: Throughout the FY 2019 cycle, Internal Labor is the only cost pool that will be required. Internal Labor relates to Government FTE costs, which has been reported for years and removed to report as Internal Labor. External Labor, Outside Services and Internal Services should be prioritized as they relate to M-17-22 efforts. Optional and mandatory requirements will remain unchanged during FY 2020 cycle, but this may be adjusted based upon efforts to make this implementation easier.

FY 2019 Requirements for IT Towers: IT Security and Compliance IT Tower costs are mandatory for all applicable Investments for the September 2017 submission. For the January 2018 submission, all applicable IT Tower costs (except for Application and Delivery) will be mandatory.

OMB strongly encourages agencies to begin while these fields are optional and work with OMB desk officers on implementation challenges.

Standard Investments for Part 3 IT Infrastructure, IT Security and IT Management Investments Phased Implementation



FY 2019 Requirements for Standard IT Investments: Throughout the FY 2019 cycle, IT Security and Compliance and IT Management are the two mandatory standard Investments. Standard Investments for Network, End User, and Data Center and Cloud are optional. OMB strongly encourages agencies to begin unwinding the costs in existing Non-Standard Investments during FY 2019 and work with OMB desk officers on implementation challenges. These three new Standard IT Investments and the associated Investment Reports will be mandatory in FY 2020 cycle beginning in September 2018.

OMB does not expect that all of the changes identified in this guidance will be made immediately. OMB realizes that changes of this magnitude take time to effectively and properly implement across the Federal government. Rather, this guidance outlines changes that will be implemented over time with the overarching mission of creating a more efficient and collaborative government.

GENERAL

1. Under what authority is this IT Budget - Capital Planning Guidance issued, and how does it relate to A-11 Section 55?

44 U.S.C. § 3602 directs the Administrator to set strategic direction and oversee implementation of agency IT governance activities. As such, Circular A-11 Section 55 provides general policy and requirements for Agency IT budget, Investment, and portfolio management, whereas this Guidance includes more detailed information on technical requirements and submissions. This detailed information allows the agency and OMB to review and evaluate each agency's IT spending and to compare IT spending across the Federal government.

2. How do I submit annual, quarterly, and other regular updates of IT budget and management information, and when is it due?

The agency's IT budget and management submissions are executed in three components: (1) *the Agency IT Portfolio Summary* (formerly Exhibit 53) that collects information on all Investments within the IT portfolio; (2) *the Major IT Business Cases* (formerly Exhibit 300s) for major Investment within Part 1: Investments for Mission Delivery and Part 2: IT Investments for Administrative Services and Support Systems; and (3), and *IT Infrastructure, Security, and Management Standard Investment Reports*, which correspond with standard Investment reports in Part 3: IT Investments for IT Infrastructure, IT Security, and IT Management. The following table displays the composite budget organization:

<table>
<tr><th colspan="2">Agency IT Portfolio Summary</th></tr>
<tr><td rowspan="3">Agency IT Investment Portfolio Summary</td><td>Part 1: IT Investments for Mission Delivery</td></tr>
<tr><td>Part 2: IT Investments for Administrative Services and Support Systems</td></tr>
<tr><td>Part 3: IT Investments for IT Infrastructure, IT Security, and IT Management</td></tr>
<tr><td colspan="2">Agency Data Center Spending Summary</td></tr>
<tr><td colspan="2">Agency Budget Accounts Summary</td></tr>
<tr><td colspan="2">CIO Evaluation Report</td></tr>
</table>

The IT budget and management requirements have varying reporting frequencies. The following table depicts the frequencies of each:

Budget and Management Requirement	Requirement	Reporting Mechanism	Frequency
Budget	eGov/LoB Contributions Verification	MAX	Annual (August)
Budget	FY 2019 Draft Agency IT Investment Portfolio Summary	Email to Agency Desk Officer	Annual (August)
Budget	FY 2019 Agency IT Portfolio Summary	IT Dashboard	Bi-Annual (September – Request – and January – President's Budget)
Budget	IT Resource Statements	MAX, President's Budget and Congressional Justifications	Bi-Annual (September – Request – and February – President's Budget)
Budget & Management	Major Investment Business Case	IT Dashboard	Bi-Annual (September – Request – and February – President's Budget)
Management	Major Investment Business Case Details	IT Dashboard	Bi-Annual (September, January) Regular Updates Data should be kept updated
Budget & Management	IT Security & Compliance Investment Reports	IT Dashboard	Bi-Annual (September, January)
Budget & Management	*Optional:* Network Investment Reports	IT Dashboard	Bi-Annual (September, January) Regular Updates Data should be kept updated
Budget & Management	*Optional:* Data Center and Cloud Investment Reports	IT Dashboard	Bi-Annual (September, January) Regular Updates Data should be kept updated
Budget & Management	*Optional:* End User Investment Reports	IT Dashboard	Bi-Annual (September, January) Regular Updates Data should be kept updated

2.1 Annual Reporting

The following dates satisfy the FY 2019 Capital Planning and Investment Control Requirements:

- **August 21, 2017**
  - FY 2019 Draft Agency IT Investment Portfolio Summary submission.

- **September 11, 2017**
  - FY 2019 Agency IT Portfolio Summary submission (including the Agency IT Investment Portfolio Summary, Agency Data Center Spending Summary, and Agency Budget Accounts Summary);
  - FY 2019 IT Resource Statements should be included along with FY 2019 Agency IT Portfolio Summary submission;
  - Verification that the required E-Gov/LoB contribution levels are being included in the Agency's budget plans.
- **September 11-15, 2017**
  - FY 2019 Major IT Investment Business Case submissions.
  - FY 2019 Standard IT Investment Reports (IT Security & Compliance required)
- **January 2018 (Tentative)**
  - Final FY 2019 President's Budget submissions;
  - The Certification of "IT Resource Statements" should be included in the Agency's Congressional Justification.

Details and instructions for submitting the verification of eGov/LoB contributions and the Draft Agency IT Investment Portfolio Summary will be forthcoming. All subsequent updates to the Agency IT Investment Portfolio Summary will be submitted to the Federal IT Dashboard (ITDB), or as otherwise directed. The Agency IT capital planning office should coordinate and review all versions/revisions of any section/part of the Agency IT Portfolio and Major IT Business Case with the Agency CIO and CFO prior to submitting the approved version to OMB.

Additional updates to the Agency IT Portfolio Summary, Major IT Investment Business Cases, and Standard Investment Reports may be required after final budget decisions or if the Agency requests supplemental funds that require changes to improve reporting accuracy. Specific instructions and deadlines for submitting updates, corrections, and final submissions will be published outside of this Guidance. If an Agency requests supplemental funds, approves additional funding, or reallocates funding within its authority and these funding changes result in changes to any part of the Agency IT Portfolio Summary, then the Agency should submit a new or revised Agency IT Portfolio Summary as part of their supplemental request.

2.2 IT Resource Statements

With reference to the requirements in Circular A-11, Sec. 51.3, CIOs should, in conjunction with their agency's budget submissions, provide the common baseline rating demonstrating the level of CFO/CIO collaboration required to fully implement the Federal IT Acquisitions Reform Act (FITARA) as applicable under existing public law.

- For the Agency IT Portfolio Summary, Agencies are also required to post a copy of these certifications, hereby termed their "OMB Budget Justification - IT Resource Statement", to the IT Resource Statements (BY 2019) MAX submission page. OMB expects that this copy will be posted on the same date by which the IT Portfolio is submitted.
- **For the Final FY 2019 President's Budget**, Agencies should update and include a copy of the final "IT Resource Statement" in the agency's public Congressional Justification materials.

The IT Resource Statements should include:

a. A statement from the CIO indicating the extent to which the CIO has reviewed and had significant input in approving IT Investments included in this budget request. For example if the CIO has reviewed and approved all the Investments from bureau/component/OpDiv/Mode A, B and C, but not D, then the statement must identify that the CIO reviewed and approved Investments from bureau/component/OpDiv/Mode A, B and C;

b. A statement from the Chief Financial Officer (CFO) and CIO identifying the extent to which the CIO had a significant role in reviewing planned IT support for major programs and significant increases and decreases in IT resources reflected in this budget;

c. An update of the CIO's common baseline rating for Element D ("D1. CIO reviews and approves major IT Investment portion of budget request")

   (1) Incomplete – Agency has not started development of a plan describing the changes it will make to ensure that all baseline FITARA responsibilities are in place.

   (2) Partially Addressed – Agency is working to develop a plan describing the changes it will make to ensure that all baseline FITARA responsibilities are in place.

   (3) Fully Implemented – Agency has developed and implemented its plan to ensure that all common baseline FITARA responsibilities are in place; and

d. The extent to which the CIO can certify the use of incremental development. For example if the CIO can certify that all the Investments from bureau/component/OpDiv/Mode A, B and C, but not D, are using incremental development practices then the statement must identify that the CIO certifies that Investments from bureaus/components/OpDivs/Modes A, B and C are using incremental development practices.

2.3 Regular Updates Reporting

- Major and Standard IT Investment updates to the IT Dashboard should be maintained to reflect the most current information available for performance metrics, risks, projects, and/or activities. (see Appendix C for a description of major IT Investments and Standard Investments).
- CIO Evaluation (per 40 U.S.C. § 11315 (c)(2)) should be updated as soon as CIOs have completed their evaluations using the CIO Evaluation Report. There is no mandated reporting frequency; however, OMB does expect at a minimum that these evaluations will occur each time a TechStat occurs, a rebaseline is approved by the Agency head (See M-10-27) , when the Business Cases are submitted to OMB in the agency budget request, and when the Business Cases are prepared for the President's Budget release.
- When providing updates to the ITDB, OMB expects that updates are provided within 30 days from the corresponding event (e.g. TechStat sessions, baseline changes, CIO evaluations, status change in projects/activities, status change to the risk information, etc.).

3. How is IT spending categorized?

Agencies are required to submit all of their IT budget-related costs to OMB annually. The agency's complete IT Portfolio must be reported for all Investments, regardless of type, including migration-related and funding contributions to IT shared services. The service provider shall report migration-related costs separately to maintain operations for current customers. For the FY 2019 President's Budget submission, IT funding levels reported in the Agency IT Portfolio Summary should be consistent with the agency's budget materials and should be categorized based upon the following three parts:

Category	Description
Part 1. IT Investments for Mission Delivery	Report IT Investments that directly support the delivery of the agency's mission. Investments in this part should be listed by the agency-designated mission delivery areas. This information should map directly to the agency's strategic and annual performance plan. For IT Investments that cover more than one mission, report in the mission area with oversight over the IT Investment.

Category	Description
Part 2. IT Investments for Administrative Services and Support Systems	Administrative services are comprised of activities that are common across all Agencies and include functional areas such as financial management, human resources, acquisitions, and grants management. Report all Investments for Administrative Services and Support Systems specific to an agency, and IT Investments officially designated as shared services and E-Gov/ Line of Business (LoB). Per OMB M-16-11, officially designated shared service providers (SSPs) include Agencies previously designated by the Department of Treasury's (Treasury) Office of Financial Innovation and Transformation (FIT), the Office of Personnel Management's (OPM) HR Line of Business (HRLoB) as well as any SSPs designated by the General Services Administration's (GSA) Office of Unified Shared Services Management (USSM). Appendix B provides a list of these Investments, SSPs, and E-Gov/LoBs. Agencies must report IT Investments that are contributing towards an SSP or E-Gov/LoB Investment. The SSPs, including those non-designated by USSM, must report IT Investments made in support of the migration of a customer agency as well as IT Investment made to support ongoing operations.
Part 3. IT Investments for IT Infrastructure, IT Security, and IT Management	Report IT Investments for IT goods and services common to all Agencies, such as IT Infrastructure, IT Security, and IT Management. For the FY 2019 submission, Agencies were required to report two standard IT Investments: IT Security and Compliance and IT Management. For the FY 2019 submission, additional standardized Investments are being rolled out for Network, Data Center and Cloud, and End User. Definitions are included in Appendix C. These Investments should be reported at the point of management and thus may be defined at the bureau level and/or by functional components, or at the agency level if the Investments are managed for the enterprise. Consequently, more than one of the same type of standard Investment submitted by Agencies may exist, particularly by federated Agencies, that are managing standard Investments at lower than the enterprise level .

Note: Part 4: IT Investments for Grants and Other Non-Federal Organizations for IT are no longer required. While this represented Federal funding appropriated for IT, it was pass-through funding in which there is not agency CIO oversight and authority for the grant funding provided to state, local, and tribal governments as well as non-government entities.

4. If I submitted an Agency IT Portfolio Summary last year, how do I revise it this year?

If the agency submitted an Agency IT Portfolio Summary for the FY 2018 Budget, the revised FY 2019 Agency IT Investment Portfolio Summary data must be compliant with the FY 2019 specified formats or it will be rejected. The agency must note change in status for each Investment, as compared to the final FY 2018 President's Budget (May 2017 or most recent update). Changes must be identified and described in columns twelve (12) and thirteen (13) of the Agency IT Investment Portfolio Summary.

It is important that the agency updates its Agency IT Investment Portfolio Summary to reflect current IT Investment data. Note that the PY funding should be updated to reflect the FY 2017 Actuals for the final FY 2019 President's Budget. An OMB Budget Account code for all Funding Sources line items is required for every Investment.

AGENCY IT INVESTMENT PORTFOLIO SUMMARY

The President's Budget Agency IT Portfolio Summary is a complete report of all IT resources within the agency. Investment costs are to be provided in millions of dollars ($M). Reporting to three (3) decimal places (precision to thousands of dollars) is recommended, although Agencies may report up to six (6) decimal places (whole dollars). For example, $4,651,123.756 would be represented as $4.651123.

5. What must I report?

The Agency IT Portfolio Summary includes all IT resources for the IT Investments from all funding sources. This means that for each Investment, the agency must identify the funding source and budgetary resources, including the OMB Budget Account codes, used for the Investment. Agencies should add as many funding source line items as are appropriate for the Investment.

To avoid double-counting or under-counting for E-Gov and/or Multi-agency and/or Intra-agency collaboration Investments and/or Standard IT Infrastructure, IT Security, and IT Management Investments, the total funding source amounts for an Investment must match the Investment line item. To that end, the agency IT Portfolio Summary of the Investment's managing partner should only include funding from its own agency in the "Agency Funding" columns and include funds received from partner Agencies in the "Contributions" columns. Likewise, the partner agency's IT Investment Portfolio Summary should include funding that is being transferred to the managing partner in its own "Agency Funding" columns (using the Investment type: "04-Funding transfer Investments). The Major IT Business Case will include all funding (both from the managing partner's "Agency Funding" as well as the partner agency's contributions).

5.1 Budget Account Codes

IT Investment are funded by specific budget accounts assigned to each agency. Agencies should use the following 10-digit number coding system to update or complete their OMB Budget Account identification code information for IT Investment funding sources:

Entry	Description
XXX-xx-xxxx-x	This is the three-digit agency code (See: Appendix C of OMB Circular No. A-11).
xxx-XX-xxxx-x	This is the two-digit bureau code (See: Appendix C of OMB Circular No. A-11). *Note:* The "bureau" code embedded in the OMB account number for a funding source might not always refer to a "bureau" as the term is used elsewhere.
xxx-xx-XXXX-x	This is a four-digit account code for the OMB budget account, as used by the MAX A-11 application where agency budget offices provide budget information for the Budget Appendix. (See: Section 79.2 of OMB Circular No. A-11).
xxx-xx-xxxx-X	This is a single -digit Transmittal Code (See: Section 79.2 of OMB Circular No. A-11).

5.2 TBM IT Cost Pools and IT Towers

In order to increase utility of the data reported in the IT Portfolio Summary and other submissions, OMB is integrating the TBM IT Cost Pools and IT Towers into this year's Guidance. Where Investment spending can be parsed into the IT Cost Pools and Towers, this will provide more granularity and ease the eventual transition to the full TBM model. Agencies will begin unwinding total Investment amounts into TBM IT Cost Pools and IT Towers in order to begin getting more granular data and driving TBM taxonomy adoption. OMB does not expect perfection during FY 2019 submissions. This is being introduced in order to start the process to transition to leveraging TBM data for the CPIC data in the future.

All Investments (Part 1, 2, and 3) shall report IT Cost Pools and IT Tower costs in a phased approach. The expectation is that the sum of the IT Towers categories may equal the investment total, and the sum of the IT Cost Pools categories may equal the investment total. There will be no validation errors built in while agencies work to break costs out in this way. There is not an expectation that all Costs Pools and all IT Tower categories will be applicable for every investment. A policy investment, for instance may be fully comprised of Internal Labor cost pool and IT Management IT Tower.

For Part 1 and Part 2 Investments, the IT Tower fields are available to indicate the applicable costs associated with the IT Towers. OMB is not requiring that IT Tower-related costs be removed from these Part 1 and 2 Investments.

For Part 3 Investments, Agencies will have a mixture of Non-Standard and Standard Infrastructure Investments.

- For Non-Standard Infrastructure Investments, the IT Tower fields are available to indicate the applicable costs associated with the IT Towers.
- For Standard Infrastructure Investments, the corresponding IT Tower fields within the investment will likely equate to the total standard Investment costs. In other words, Agencies should report costs such that the IT Security and Compliance standard Investment total will be the same as the total of the IT Security and Compliance Tower field.

With regards to the TBM IT Cost Pools, agencies may already formulate their IT budget data or obtain execution data that aligns with Budget Object Class (BOC) codes. In that case, agencies may wish to use the table below to begin the alignment between the BOC codes and TBM costs pools and sub pools. Agencies may also need to collect additional data, including three digit BOCs and sub-BOCs (or the equivalent), in order to gain enough granularity to align the IT Cost Pools and BOCs according to their specific use cases. For agencies that do not have IT data that aligns with BOC codes, the total investment costs can be decomposed into the IT Cost Pools using the definitions listed in Appendix E.

IT Cost Pool	Cost Sub-Pool	Budget Object Class (BOC)	Budget Object Class Name
Internal Labor	Expense	11	Personnel Compensation
		12	Personnel Benefits
		13	Benefits for Former Personnel
		40	Grants and Fixed Charges
External Labor	Expense	25	Other Contractual Services
Outside Services	Consulting	25	Other Contractual Services
	Managed Service Provider	25	Other Contractual Services
	Cloud Service Provider	25	Other Contractual Services

IT Cost Pool	Cost Sub-Pool	Budget Object Class (BOC)	Budget Object Class Name
Hardware	Depreciation/ Amortization	31	Equipment
	Expense	22	Transportation of Things
		23	Communications, Utilities and Misc Charges
		25	Other Contractual Services
		26	Supplies and Materials
		31	Equipment
	Lease	23	Rent, Communications, and Utilities
	Maintenance & Support	25	Operations & Maintenance of Equipment
		31	Equipment
Software	Depreciation/ Amortization	31	Equipment
	Expense	31	Equipment
	Subscription	31	Equipment
	Maintenance & Support	31	Equipment
		25	Operations & Maintenance of Equipment
Facilities & Power	Lease	23	Rent, Communications, and Utilities
		25	Other Contractual Services
	Maintenance & Support	25	Other Contractual Services
	Expense	25	Other Contractual Services
	Depreciation/ Amortization	25	Other Contractual Services
Telecom	Maintenance & Support	23	Rent, Communications, and Utilities
	Lease	23	Rent, Communications, and Utilities
	Expense	23	Rent, Communications, and Utilities
	Depreciation/ Amortization	23	Rent, Communications, and Utilities
Other	Other	24	Printing and Reproduction
		26	Supplies and Materials
		31	Equipment
		32	Land and Structures
		33	Investment and Loans
		40	Grants and Fixed Charges
		91	Unvouchered
	Training	25	Other Contractual Services
	Travel	21	Travel and Transportation of Persons

6. How do I complete the Agency IT Investment Portfolio Summary?

Each Investment identified in the Agency's IT Investment Portfolio Summary must have a Unique Investment Identifier (UII). The UII is the primary key for understanding the different Investments.

6.1 Standard Components in the IT Portfolio

Column/Field	Description
1	**Previous UII** *[12 digits, required for all legacy Investments]* This is the identifier depicting agency code and unique Investment number used to report the Investment in the previous FY 2018 Agency IT Portfolio Summary submission to OMB. Indicating the UII used for a previous submission allows cross-walk and historical analysis spanning FYs. Previous UII is mandatory, with the exception of new Investments. To indicate consolidations/splits/reorganizations, Agencies should provide more than one entry and separate UIIs with commas.
2	**Current UII** *[12-digit primary key for all Investments]* The Current UII includes an agency code and a nine-digit unique identifier. Variable information formerly included in the UII of previous years is not part of the UII primary key. XXX- xxxxxxxxx: The first three digits represent your agency code (see Appendix C of OMB Circular No. A-11). xxx- XXXXXXXXX: The last nine digits serve as the Investment's unique identifier. This identifier should be system-generated and applied at the agency level. It will allow Agencies up to one billion unique identifiers to associate with IT Investments. Once used, the unique identifier must be retired from use for any future new Investment and should remain unchanged for any continuing Investment that is not split, consolidated, or reorganized. If an IT Investment is retired, discontinued, or merged with another IT Investment, the UII persists with that IT Investment.
3	**Shared Services Category** *[2-digit code] (variable element)* 00: Code for all Investments other than those coded "24", "36", or "48". 24: E-Gov initiatives or an individual agency's participation in one of the E-Gov/LoB initiatives listed in Appendix B. 36: Shared Service Providers (SSP) s (and their customers) previously designated by Treasury's FIT and OPM's HRLoB as well as any providers designated by the USSM. Agency contributions to a SSP or a Multi-agency (Inter- or Intra-agency) collaboration should use code 24, not code 36. 48: Any Multi-agency (Inter- or Intra-agency) collaboration or an individual agency's participation in one of these initiatives. This includes shared services not officially designated by USSM and excludes E-Gov/LoB initiatives and USSM designated shared services.
4	**Shared Services Identifier** *[4-digit code]* These four digits are applicable for all Investments with a Shared Services Category of 24, 36 or 48. A code will be specifically assigned for all E-Gov/LoB and USSM designated shared services in Appendix B, while Agencies should assign their own four-digit unique codes for Multi-agency initiatives using the "48" shared services category. This code represents the same 4-digit identifier previously provided in the last nine digits of the UII for Investments starting with xxx-99999XXXX.

Column/Field	Description
5	**Bureau Code** *[2-digit code] (variable element)* The two digits indicate the bureau code of the Investment (see Appendix C of OMB Circular No. A-11). If this is a department-level or an agency-wide activity, use "00" as your bureau code. *Note:* This field refers to the bureau with management responsibility for the IT Investment, which may differ from the "bureau" code embedded in OMB budget accounts used when providing funding sources.
6	**Part of Agency IT Portfolio Summary** *[2-digit code] (variable element)* These two digits indicate one of the three parts of the Agency IT Portfolio Summary, to which the Investment belongs: 01: Part 1. IT Investments for Mission Delivery 02: Part 2. IT Investments for Administrative Services and Support Systems 03: Part 3. IT Investments for IT Infrastructure, IT Security, and IT Management
7	**Standard IT Infrastructure and Management Category** *[2-digit code]* These two digits indicate the sub-category of Investments identified as Part 3: IT Investments for IT Infrastructure, IT Security, and IT Management. Agencies must continue to report the two standard Investments introduced last year. IT Security programs should be reflected within an Investment called IT Security and Compliance and use Category 02, and all CIO Function Investments should be reflected within an Investment called IT Management and use Category 03. Three additional standard Investments are being introduced: Network, Data Center and Cloud, and End User. Reporting these three new standard Investments is optional in FY 2019 and will be required in FY 2020. Agencies are encouraged to begin re-aligning Part 3 costs based upon these standard Investments. All other Investments should use Category 01, which will represent Non-Standard Infrastructure Investments. The indicators should represent Standard Investments as follows: 01: Not Applicable 02: IT Security and Compliance 03: IT Management 04: Network 05: Data Center and Cloud 06: End User
8	**Mission Delivery and Management Support Area** *[2-digit code] (variable element)* These two digits indicate the mission delivery and management support areas. Agencies should assign a unique code for each mission delivery and management support area reported. Agencies shall provide a reference table for mission areas to the ITDB to include: • Agency Code *[3-digits]* • Mission Delivery and Management Support Area *[2-digit code]* • Description *[500 characters]*

Column/Field	Description
9	**Type of Investment** *[2-digit code] (variable element)* These two digits indicate the type of Investment being reported as follows: 01: Major IT Investments 02: Non-major IT Investments 03: IT Migration Investment: The portion of a larger asset and for which there is an existing Business Case for the overall asset. The description of the IT Investment should indicate the UII of the major asset Investment of the managing partner. 04: Funding Transfer Investments: These are primarily used to indicate the partner contribution to an Investment in another Agency's IT Investment Portfolio Summary. The description of the IT Investment should indicate the UII of the managing partner Investment. Intra-agency collaboration should also use this Investment type. 05: Standard IT Infrastructure Investments in Part 3: IT Infrastructure, IT Security, IT Management Investments (IT Security and Compliance, IT Management, Network, End User, Data Center and Cloud) 06: Non-Standard Infrastructure Investments in Part 3: IT Infrastructure, IT Security, IT Management Investments. These investments should report as 01: Not Applicable under the Standard IT Infrastructure and Management Category (Field 8). Because Agencies are transitioning to this TBM-based model but the full model will not be available, it is critical that Agencies leverage the structure for elements in infrastructure Investments that do not fit into the previous sections. In all instances for these Investments Agencies may downgrade a "Major" Part 3 Investment to "06: Non-Standard Infrastructure Investment" provided that they have disaggregated to the greatest extent practical through the use of the other "Standard Investments". Additionally, agencies may not have the capacity or the maturity to deliver all of the available Standard Investment reporting identified in the prior sections of this guidance. For those instances in which there is an organization that isn't prepared to report the standard Investments, Agencies should consider leveraging the Non-Standard Infrastructure Investment to build up competence and maturity.
10	**National Security Systems Identifier** *[2-digit code]* These two digits indicate whether the Investment is a National Security System per the Federal Information Security Management Act of 2002 (FISMA), 44 U.S.C. 3542(b)(2) as follows: 01: Non-National Security System Investment 02: National Security System Investment
11	**Line Item Descriptor** *[2-digit code] (variable element)* These two digits identify the nature of the "line item" in the Agency IT Portfolio Summary structure. The digits represent the line number in both the XML format used for Agencies on the ITDB and the line number in an equivalent spreadsheet file (CSV or XLS file), for Agencies not on the ITDB, as follows: 00: Total Investment title line, structurally the first line for reporting this particular Investment 04: Funding source or appropriation 09: Any subtotal

Column/Field	Description
12	**Change in Investment Status Identifier** *[2-digit code]* This is used when an Investment has a change in status (e.g., downgraded to non-major IT Investment, eliminated, retired, consolidated, split) for the current budget submission relative to the previous budget cycle. The change of status should be indicated with one of the following reasons: 01: Upgraded from non-major to major IT Investment 02: Downgraded from major to non-major IT Investment 03: Split into multiple Investments 04: Consolidation of Investments 05: Reorganization 06: Eliminated by funding 07: Eliminated by split 08: Eliminated by consolidation 09: Eliminated by reorganization 10: New 11: No Change in Status *Note:* For any new Standard IT Infrastructure, Security, and Management Investment, use Change in Investment Status Identifier 05 (Reorganization). Investments that have been split (Change in Investment Status Identifier 3) must be included in the Agency IT Portfolio Summary, with new UIIs in the Current UII field. Investments that have been consolidated (Change in Investment Status Identifier 4) must include their Previous UII in column 1.
13	**Agency Description of Change in Investment Status** *[255 char max]* This is used when an indicator has been chosen for "Change in Investment Status Identifier" in order to provide a description of the rationale for the change, which may include impacted UIIs, specific references to legislative requirements, or governance board decisions and effective dates.
14	**Investment Title** This is a text field to provide the Investment title. To the extent that they are not part of the name used by the agency, other identifiers such as bureaus or other numeric codes should not be included as part of an Investment title.
15	**Investment Description** *[255 char max]* This is a short public-facing description for each Investment. This description should explain the purpose of the Investment and what program(s) it supports, including the value to the public. The description should be understandable to someone who is not an expert of the agency. If the Investment is part of a Multi-agency initiative or another Business Case, the agency should describe where that Business Case is located in the appropriate agency budget submission (e.g., managing partner UII). For example, if the Investment represents the agency's participation in an E-Gov or Shared Service initiative, the description should state this information and refer to the Current UII of the managing partner's Business Case.
16	**FEA BRM Services – Primary service area** This is the three (3) -digit code that indicates the predominant business function served by the Investment (not necessarily the agency's mission/business). BRM version 3.1 contains the current mapping codes. *[3-digit code]*
17	**DME PY Agency Funding** (PY/2017) *[$M]* This should indicate FY 2017 amount. See definition of DME in Appendix C.

Column/Field	Description
18	**DME PY Contributions** (PY/2017) *[$M]* This should indicate the FY 2017 amount contributed from other Agencies. See definition of DME in Appendix C. For Funding Transfer Investments (Investment Type "04"), this field should be 0.
19	**DME CY Agency Funding** (CY/2018) *[$M]* This should indicate FY 2018 amount. See definition of DME in Appendix C.
20	**DME CY Contributions** (CY/2018) *[$M]* This should indicate the FY 2018 amount contributed from other Agencies. See definition of DME in Appendix C. For Funding Transfer Investments (Investment Type "04"), this field should be 0.
21	**DME BY Agency Funding** (BY/2019) *[$M]* This should indicate FY 2019 amount. See definition of DME in Appendix C.
22	**DME BY Contributions** (BY/2019) *[$M]* This should indicate the FY 2019 amount contributed from other Agencies. See definition of DME in Appendix C. For Funding Transfer Investments (Investment Type "04"), this field should be 0.
23	**O&M PY Agency Funding** (PY/2017) *[$M]* This should indicate FY 2017 amount. See definition of O&M in Appendix C.
24	**O&M PY Contributions** (PY/2017) *[$M]* This should indicate the FY 2017 amount contributed from other Agencies. See definition of O&M in Appendix C. For Funding Transfer Investments (Investment Type "04"), this field should be 0.
25	**O&M CY Agency Funding** (CY/2018) *[$M]* This should indicate FY 2018 amount. See definition of O&M in Appendix C.
26	**O&M CY Contributions** (CY/2018) *[$M]* This should indicate the FY 2018 amount contributed from other Agencies. See definition of O&M in Appendix C. For Funding Transfer Investments (Investment Type "04"), this field should be 0.
27	**O&M BY Agency Funding** (BY/2019) *[$M]* This should indicate FY 2019 amount. See definition of O&M in Appendix C.
28	**O&M BY Contributions** (BY/2019) *[$M]* This should indicate the FY 2019 amount contributed from other Agencies. See definition of O&M in Appendix C. For Funding Transfer Investments (Investment Type "04"), this field should be 0.

6.2 IT Cost Pools

Columns 29-55 include the IT Cost Pools from the TBM Taxonomy. Definitions are provided in Appendix E. The only cost pool data that is required in the FY 2019 submission year is Total Internal Labor, as that data is related to the FTE costs that have been captured in the CPIC budget submissions for many years. While the TBM definition of Internal Labor includes more than just Government FTE costs, Agencies can simply include these Government FTE costs. Reporting all applicable IT Cost Pools is encouraged for Agencies that can, and OMB acknowledges that Investments will not likely have costs associated with all IT Cost Pools. Funding Transfer Investments (Investment Type "04") are not required to break down costs in this manner.

Column/Field	Description
29	Cost Pool: **Total Internal Labor** (formerly Government FTE) **Cost** (PY/2017) *[$M]* This is the total PY cost represented by the number of government FTEs associated with the Investment. This includes employee wages, benefits, and occupancy expenses, This applies to all Investments; major, non-major, and standard IT Infrastructure, IT Security, and IT Management. If an FTE's costs are included in the Investment costs for PY, the FTE or portion of the FTE should be reported, regardless of the FTE's role in the Investment (e.g., technical, managerial, functional, or governance). FTE cost should reflect the fully-loaded cost of government FTEs (as defined by OMB Circular A-76). While the definition of Internal Labor includes more than just Government FTE costs, Agencies can simply include these Government FTE costs For major IT Investments, the total FTE costs reported in this field should match the total FTE costs listed on the life cycle cost table in the Major Business Case.
30	Cost Pool: **Total Internal Labor** (Government FTE) **Cost** (CY/2018) *[$M]* This is the total CY cost represented by the number of government FTEs associated with the Investment. This includes employee wages, benefits, and occupancy expenses, This applies to all Investments: major, non-major, and Standard IT Infrastructure, IT Security, and IT Management. If an FTE's costs are included in the Investment costs for PY, the FTE or portion of the FTE should be reported, regardless of the FTE's role in the Investment (e.g., technical, managerial, functional, or governance). FTE cost should reflect the fully-loaded cost of government FTEs (as defined by OMB Circular A-76). For major IT Investments, the total FTE costs reported in this field should match the total FTE costs listed on the life cycle cost table in the Major Business Case. While the definition of Internal Labor includes more than just Government FTE costs, Agencies can simply include these Government FTE costs.
31	Cost Pool: **Total Internal Labor** (Government FTE) **Cost** (BY/2019) *[$M]* This is the total BY cost represented by the number of government FTEs associated with the Investment. This includes employee wages, benefits, and occupancy expenses, This applies to all Investments: major, non-major, and standard IT Infrastructure, Security, and Management. If an FTE's costs are included in the Investment costs for BY, the FTE or portion of the FTE should be reported, regardless of the FTE's role in the Investment (e.g., technical, managerial, functional, or governance). FTE cost should reflect the fully-loaded cost of government FTEs (as defined by OMB Circular A-76). For major IT Investments, the total FTE costs reported in this field should match the total FTE costs listed on the life cycle cost table in the Major Business Case. While the definition of Internal Labor includes more than just Government FTE costs, Agencies can simply include these Government FTE costs.

Column/Field	Description
32	Cost Pool: **Total External Labor Cost** (PY/2017) *[$M] [Optional]* This is the total PY cost for external labor: contractor fees, travel and expenses, associated with this Investment. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
33	Cost Pool: **Total External Labor Cost** (CY/2018) *[$M] [Optional]* This is the total CY cost for external labor: contractor fees, travel and expenses, associated with this Investment. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
34	Cost Pool: **Total External Labor Cost** (BY/2019) *[$M] [Optional]* This is the total BY cost for external labor: contractor fees, travel and expenses, associated with this Investment. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
35	Cost Pool: **Total Outside Services Cost** (PY/2017) *[$M] [Optional]* This is the total PY cost for outside services including consulting, managed service providers and cloud service providers. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
36	Cost Pool: **Total Outside Services Cost** (CY/2018) *[$M] [Optional]* This is the total CY cost for outside services including consulting, managed service providers and cloud service providers. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
37	Cost Pool: **Total Outside Services Cost** (BY/2019) *[$M] [Optional]* This is the total BY cost for outside services including consulting, managed service providers and cloud service providers. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
38	Cost Pool: **Total Hardware Cost** (PY/2017) *[$M] [Optional]* This is the total PY cost for hardware including expense, lease, maintenance and support, and depreciation and amortization. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
39	Cost Pool: **Total Hardware Cost** (CY/2018) *[$M] [Optional]* This is the total CY cost for hardware including expense, lease, maintenance and support, and depreciation and amortization. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
40	Cost Pool: **Total Hardware Cost** (BY/2019) *[$M] [Optional]* This is the total BY cost for hardware including expense, lease, maintenance and support, and depreciation and amortization. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.

Column/Field	Description
41	Cost Pool: **Total Software Cost** (PY/2017) *[$M] [Optional]* This is the total PY cost for software including expense, subscription, maintenance and support, and depreciation and amortization. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
42	Cost Pool: **Total Software Cost** (CY/2018) *[$M] [Optional]* This is the total CY cost for software including expense, subscription, maintenance and support, and depreciation and amortization. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
43	Cost Pool: **Total Software Cost** (BY/2019) *[$M] [Optional]* This is the total BY cost for software including expense, subscription, maintenance and support, and depreciation and amortization. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
44	Cost Pool: **Total Facilities and Power Cost** (PY/2017) *[$M] [Optional]* This is the total PY cost for facilities and power including expense, lease, maintenance and support, and depreciation and amortization. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
45	Cost Pool: **Total Facilities and Power Cost** (CY/2018) *[$M] [Optional]* This is the total CY cost for facilities and power including expense, lease, maintenance and support, and depreciation and amortization. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
46	Cost Pool: **Total Facilities and Power Cost** (BY/2019) *[$M] [Optional]* This is the total BY cost for facilities and power including expense, lease, maintenance and support, and depreciation and amortization. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
47	Cost Pool: **Total Telecom Cost** (PY/2017) *[$M] [Optional]* This is the total PY cost for telecom including expense, lease, maintenance and support, and depreciation and amortization. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
48	Cost Pool: **Total Telecom Cost** (CY/2018) *[$M] [Optional]* This is the total CY cost for telecom including expense, lease, maintenance and support, and depreciation and amortization. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.

Column/Field	Description
49	Cost Pool: **Total Telecom Cost** (BY/2019) *[$M] [Optional]* This is the total BY cost for telecom including expense, lease, maintenance and support, and depreciation and amortization. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
50	Cost Pool: **Total Other Cost** (PY/2017) *[$M] [Optional]* This is the total other cost for PY including miscellaneous or non-standard expenses. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
51	Cost Pool: **Total Other Cost** (CY/2018) *[$M] [Optional]* This is the total other cost for CY including miscellaneous or non-standard expenses. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
52	Cost Pool: **Total Other Cost** (BY/2019) *[$M] [Optional]* This is the total other cost for BY including miscellaneous or non-standard expenses. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
53	Cost Pool: **Total Internal Services Cost** (PY/2017) *[$M] [Optional]* This is the total PY internal services cost for shared services charges received from other internal shared services groups. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
54	Cost Pool: **Total Internal Services Cost** (CY/2018) *[$M] [Optional]* This is the total PY internal services cost for shared services charges received from other internal shared services groups. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
55	Cost Pool: **Total Internal Services Cost** (BY/2019) *[$M] [Optional]* This is the total PY internal services cost for shared services charges received from other internal shared services groups. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.

6.3 IT Towers

Columns 56-85 represent the TBM IT Towers. "IT Towers and sub-Towers are the basic building blocks of services and applications. Examples include compute (e.g., servers, Unix, mainframe), network, application (e.g., app dev, app support and maintenance) and IT management. They are sometimes called domains or functions."[2] Definitions for each are included in Appendix E: TBM Cost Pool and IT Tower Definitions. The Security & Compliance IT Tower is required for submissions in September. For the President's Budget Submission in January, all IT Towers will be required, with the exception of Application and Delivery. Reporting all applicable IT Tower costs is encouraged, and there is acknowledgement that Investments will not likely have costs associated with all IT Towers. Funding Transfer Investments (Investment Type "04") are not required to break down costs in this manner.

Column/Field	Description
56	IT Tower: **Total Data Center Cost** (PY/2017) *[$M] [Optional in September, Required in January, if applicable]* This is the total PY data center cost associated with and included in this Investment's total cost. This includes enterprise data center and other facilities costs. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For Data Center and Cloud Investments, the expectation is that the sum of Data Center, Compute and Storage in PY will equate to the total PY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
57	IT Tower: **Total Data Center Cost** (CY/2018) *[$M] [Optional in September, Required in January, if applicable]* This is the total CY data center cost associated with and included in this Investment's total cost. This includes enterprise data center and other facilities costs. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For Data Center and Cloud Investments, the expectation is that the sum of Data Center, Compute and Storage in CY will equate to the total CY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
58	IT Tower: **Total Data Center Cost** (BY/2019) *[$M] [Optional in September, Required in January, if applicable]* This is the total BY data center cost associated with and included in this Investment's total cost. This includes enterprise data center and other facilities costs. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For Data Center and Cloud Investments, the expectation is that the sum of Data Center, Compute and Storage in BY will equate to the total BY Investment cost. Additionally, BY Data Center costs associated with non-standard Data Center and Cloud Investments, must be added to a standard Data Center and Cloud Investments BY Contributions costs and incorporated into the relevant Investment report. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.

[2] Technology Business Management Council, TBM Taxonomy Version 2.0, October 21, 2016

Column/Field	Description
59	IT Tower: **Total Compute Cost** (PY/2017) *[$M] [Optional in September, Required in January, if applicable]* This is the total PY compute cost associated with and included in this Investment's total cost. This includes physical and virtual servers, servers running Unix operating systems, IBM AS/400 platform, converged infrastructure that provide compute, storage, and network capabilities in one box, and mainframe computers. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For Data Center and Cloud Investments, the expectation is that the sum of Data Center, Compute and Storage in PY will equate to the total PY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
60	IT Tower: **Total Compute Cost** (CY/2018) *[$M] [Optional in September, Required in January, if applicable]* This is the total CY compute cost associated with and included in this Investment's total cost. This includes physical and virtual servers, servers running Unix operating systems, IBM AS/400 platform, converged infrastructure that provide compute, storage, and network capabilities in one box, and mainframe computers. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For Data Center and Cloud Investments, the expectation is that the sum of Data Center, Compute and Storage in CY will equate to the total CY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
61	IT Tower: **Total Compute Cost** (BY/2019) *[$M] [Optional in September, Required in January, if applicable]* This is the total BY compute cost associated with and included in this Investment's total cost. This includes physical and virtual servers, servers running Unix operating systems, IBM AS/400 platform, converged infrastructure that provide compute, storage, and network capabilities in one box, and mainframe computers. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For Data Center and Cloud Investments, the expectation is that the sum of Data Center, Compute and Storage in BY will equate to the total BY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
62	IT Tower: **Total Storage Cost** (PY/2017) *[$M] [Optional in September, Required in January, if applicable]* This is the total PY storage cost associated with and included in this Investment's total cost. This includes online storage, offline storage, mainframe online storage, and mainframe offline storage. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For Data Center and Cloud Investments, the expectation is that the sum of Data Center, Compute and Storage in PY will equate to the total PY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
63	IT Tower: **Total Storage Cost** (CY/2018) *[$M] [Optional in September, Required in January, if applicable]* This is the total CY storage cost associated with and included in this Investment's total cost. This includes online storage, offline storage, mainframe online storage, and mainframe offline storage. Definitions are

Column/Field	Description
	included in Appendix E: TBM Cost Pool and IT Tower definitions. For Data Center and Cloud Investments, the expectation is that the sum of Data Center, Compute and Storage in CY will equate to the total CY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
64	IT Tower: **Total Storage Cost** (BY/2019) *[$M] [Optional in September, Required in January, if applicable]* This is the total BY storage cost associated with and included in this Investment's total cost. This includes online storage, offline storage, mainframe online storage, and mainframe offline storage. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For Data Center and Cloud Investments the expectation is that the sum of Data Center, Compute and Storage in BY will equate to the total BY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
65	IT Tower: **Total Network Cost** (PY/2017) *[$M] [Optional in September, Required in January, if applicable]* This is the total PY network cost associated with and included in this Investment's total cost. This includes LAN/WAN, voice, and transport; data network circuits; and associated access facilities and services. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For the Network standard Investments, the expectation is that the sum of network costs in PY will equate to the total PY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
66	IT Tower: **Total Network Cost** (CY/2018) *[$M] [Optional in September, Required in January, if applicable]* This is the total CY network cost associated with and included in this Investment's total cost. This includes LAN/WAN, voice and transport; data network circuits and associated access facilities and services. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For the Network standard Investments, the expectation is that the sum of network costs in CY will equate to the total CY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
67	IT Tower: **Total Network Cost** (BY/2019) *[$M] [Optional in September, Required in January, if applicable]* This is the total BY network cost associated with and included in this Investment's total cost. This includes LAN/WAN, voice and transport; data network circuits and associated access facilities and services. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For the Network standard Investments, the expectation is that the sum of network costs in BY will equate to the total BY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
68	IT Tower: **Total Output Cost** (PY/2017) *[$M] [Optional in September, Required in January, if applicable]* This is the total PY output cost associated with and included in this

Column/Field	Description
	Investment's total cost. This includes central print services. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
69	IT Tower: **Total Output Cost** (CY/2018) *[$M] [Optional in September, Required in January, if applicable]* This is the total CY output cost associated with and included in this Investment's total cost. This includes central print services. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
70	IT Tower: **Total Output Cost** (BY/2019) *[$M] [Optional in September, Required in January, if applicable]* This is the total BY output cost associated with and included in this Investment's total cost. This includes central print services. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
71	IT Tower: **Total End User Cost** (PY/2017) *[$M] [Optional in September, Required in January, if applicable]* This is the total PY end user cost associated with and included in this Investment's total cost. This includes workspace (workstations), mobile devices, end user software, network printers, conferencing and AV equipment, IT help desk, and deskside support. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For the End User standard Investments, the expectation is that the sum of End User costs in PY will equate to the total PY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
72	IT Tower: **Total End User Cost** (CY/2018) *[$M] [Optional in September, Required in January, if applicable]* This is the total CY end user cost associated with and included in this Investment's total cost. This includes workspace (workstations), mobile devices, end user software, network printers, conferencing and AV equipment, IT help desk, and deskside support. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For the End User standard Investments, the expectation is that the sum of End User costs in CY will equate to the total CY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
73	IT Tower: **Total End User Cost** (BY/2019) *[$M] [Optional in September, Required in January, if applicable]* This is the total BY end user cost associated with and included in this Investment's total cost. This includes workspace (workstations), mobile devices, end user software, network printers, conferencing and AV equipment, IT help desk, and deskside support. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For the End User standard Investments, the expectation is that the sum of End User costs in BY will equate to the total BY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.

Column/Field	Description
74	IT Tower: **Total Application Cost** (PY/2017) *[$M] [Optional in September and January, if applicable]* This is the total PY application cost associated with and included in this Investment's total cost. This includes application development, support and operations, business software, distributed database services, middleware, mainframe database services, and mainframe middleware. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
75	IT Tower: **Total Application Cost** (CY/2018) *[$M] [Optional in September and January, if applicable]* This is the total PY application cost associated with and included in this Investment's total cost. This includes application development, support and operations, business software, distributed database services, middleware, mainframe database services, and mainframe middleware. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
76	IT Tower: **Total Application Cost** (BY/2019) *[$M] [Optional in September and January, if applicable]* This is the total BY application cost associated with and included in this Investment's total cost. This includes application development, support and operations, business software, distributed database services, middleware, mainframe database services, and mainframe middleware. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
77	IT Tower: **Total Delivery Cost** (PY/2017) *[$M] [Optional in September and January, if applicable]* This is the total PY delivery cost associated with and included in this Investment's total cost. This includes IT service management, project management, client management and operations center resources. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
78	IT Tower: **Total Delivery Cost** (CY/2018) *[$M] [Optional in September and January, if applicable]* This is the total CY delivery cost associated with and included in this Investment's total cost. This includes IT service management, project management, client management and operations center resources. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
79	IT Tower: **Total Delivery Cost** (BY/2019) *[$M] [Optional in September and January, if applicable]* This is the total BY delivery cost associated with and included in this Investment's total cost. This includes IT service management, project management, client management and operations center resources. Definitions

Column/Field	Description
	are included in Appendix E: TBM Cost Pool and IT Tower definitions. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
80	IT Tower: **Total IT Security and Compliance Cost** (PY/2017) *[$M] [Required]* This is the total PY security and compliance cost included in this Investment's total cost. This field replaces the Total Security Cost field in last year's guidance. Definitions are included in Appendix D: List of IT Security Capability Definitions. For the IT Security and Compliance standard Investments, the expectation is that the sum of Security and Compliance costs in PY will equate to the total PY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
81	IT Tower: **Total IT Security and Compliance Cost** (CY/2018) *[$M] [Required]* This is the total CY security and compliance cost included in this Investment's total cost. This field replaces the Total Security Cost field in last year's guidance. Definitions are included in Appendix D: List of IT Security Capability Definitions. For the IT Security and Compliance standard Investments, the expectation is that the sum of Security and Compliance costs in PY will equate to the total PY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
82	IT Tower: **Total IT Security and Compliance Cost** (BY/2019) *[$M] [Required]* This is the total BY security and compliance cost included in this Investment's total cost. This field replaces the Total Security Cost field in last year's guidance. Definitions are included in Appendix D: List of IT Security Capability Definitions. For the IT Security and Compliance standard Investments, the expectation is that the sum of Security and Compliance costs in PY will equate to the total PY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
83	IT Tower: **Total IT Management Cost** (PY/2017) *[$M] [Optional in September, Required in January, if applicable]* This is the total PY IT Management cost associated with and included in this Investment's total cost. This includes IT management and strategic planning, enterprise architecture, IT finance, and IT vendor management. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For the IT Management standard Investments, the expectation is that the sum of IT Management costs in PY will equate to the total PY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
84	IT Tower: **Total IT Management Cost** (CY/2018) *[$M] [Optional in September, Required in January, if applicable]* This is the total CY IT Management cost associated with and included in this Investment's total cost. This includes IT management and strategic planning, enterprise architecture, IT finance, and IT vendor management. Definitions are

Column/Field	Description
	included in Appendix E: TBM Cost Pool and IT Tower definitions. For the IT Management standard Investments, the expectation is that the sum of IT Management costs in PY will equate to the total PY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.
85	IT Tower: **Total IT Management Cost** (BY/2019) *[$M] [Optional in September, Required in January, if applicable]* This is the total BY IT Management cost associated with and included in this Investment's total cost. This includes IT management and strategic planning, enterprise architecture, IT finance, and IT vendor management. Definitions are included in Appendix E: TBM Cost Pool and IT Tower definitions. For the IT Management standard Investments, the expectation is that the sum of IT Management costs in PY will equate to the total PY Investment cost. This applies to all Investments: major, non-major, and standard IT Infrastructure, IT Security, and IT Management.

6.4 Standard Components in the IT Portfolio (end of IT Cost Pools and IT Towers), continued

Columns 86-92 correspond to fields collected previously in the IT Portfolio submissions and continued or are fields that have been added and are required for all Investments for the FY 2019 submissions.

Column/Field	Description
86	**Functional/Business Sponsor Name** The Functional/Business Sponsor is defined in Appendix C, and provides visibility for Agencies and OMB as to who the sponsor is for each Investment within the IT portfolio.
87	**Functional/Business Sponsor Title** Indicate the title of the Functional/Business Sponsor.
88	**Cloud Computing Alternatives Evaluation** *[one-digit code]* This specifies whether, as of the date of the submission, the Investment, or a component of the Investment, is leveraging, considering, migrating, or posing as a candidate for cloud computing. All Investments should answer this question regardless of the overall life cycle stage of the Investment, as operational Investments should consider cloud computing alternatives during or as a result of an operational analysis. Select one of the following answers: 1. This Investment or a portion of this Investment is leveraging cloud computing. 2. This Investment is migrating to the cloud. 3. This Investment is considering cloud computing. 4. Cloud computing has NOT been considered. 5. Cloud computing is NOT applicable for any portion of this Investment. 6. Cloud computing has been considered but was not selected. *Note:* For Funding Transfer Investments (Investment Type "04"), this field does not need to be completed.
89	**Data Center ID**– The unique identifier (or list of the identifiers) from your agency's data center inventory, which is submitted to OMB on a quarterly basis in conjunction with the Integrated Data Collection (IDC). To be put in contact with your agency's IDC submitters and obtain a list of your agency's correct

Column/Field	Description
	Data Center IDs, email DataPointSupport@omb.eop.gov. This may be applicable to all or many investments within the IT portfolio. The Data Center ID(s) should be populated wherever there is a correlation of associated funding with the investments. The Data Center Standard Investments – Standard IT Infrastructure and Management Category: 05, will have one Data Center ID.
90	**Total Cloud (PaaS/IaaS) Cost** (CY/2018) *[$M]* This should indicate the CY costs associated with Platform as a Service (PaaS) and Infrastructure as a Service (IaaS) cloud service offerings for this Investment. Previously this was asked for in the Agency Provisioned IT Services Spending Summary, which has been eliminated.
91	**Total Cloud (SaaS) Cost** (CY/2018) *[$M]* This should indicate the CY costs associated with Software as a Service (SaaS) cloud service offerings for this Investment. Previously this was asked for in the Agency Provisioned IT Services Spending Summary, which has been eliminated.
92	**Total Other Managed Services (non-cloud) Cost** (CY/2018) *[$M]* This should indicate the CY costs associated with non-cloud managed services service offerings. Previously this was asked for in the Agency Provisioned IT Services Spending Summary, which has been eliminated.

AGENCY DATA CENTER SPENDING SUMMARY

7. How do I report the Agency Data Center Spending Summary table?

The below table collects the funding levels associated with data centers in order to inform continuous oversight over the DCOI. This is to be completed for costs that the agency incurs for data center assets that the agency owns and operates, or obtains via services (i.e., where the infrastructure is neither owned nor operated by the agency but is procured via a services arrangement). It should include the costs of all data centers (both tiered and non-tiered) as well as the infrastructure used to support Investments in the rest of the Agency IT Portfolio Summary (Parts 1 and 2). Each row is mutually exclusive of the others.

Data Center Cost Category	Total PY ($M)	Total CY ($M)
Data Center Labor		
Data Center Software		
Data Center Hardware		
Data Center Electricity		
Data Center Facility		

Column/Field	Definition
Data Center Labor	**Data Center Labor costs <u>include</u>** all costs of government FTEs (as defined by OMB Circular A-76) and contracted personnel associated with the operations and maintenance of a data center. If the responsibilities are a fraction of a person's or several persons' time, report the portion of each individual's salary multiplied by the fraction of their time spent working on data center activities. **In-sourced staff:** Labor costs include salary, overtime pay, benefits, and "other" employee costs such as job-related travel. Costs for Information Security training, however, should be excluded, as should costs associated with reductions in workforce, relocations, or retirement. **Contractor resources:** Labor costs include the total spending for contractor staff that is supplemental to the agency staff and "operationally" managed by the in-house staff. For labor associated with outsourced services, spending details by category might not be available. In these cases, those costs should be reported under a "services" category.
Data Center Software	**Data Center Software costs <u>include</u>** server operating systems (both physical and virtual); virtualization and partitioning software; database and data management software; software dedicated to managing and maintaining storage systems; middleware; security software; IT management software; messaging and collaboration software; and software-related costs linked to planning, testing, quality control and quality assurance, and implementing disaster recovery. **Data Center Software costs <u>exclude</u>** application software and virtual desktops or VDI.
Data Center Hardware	**Data Center Hardware costs <u>include</u>** processors, storage devices, print devices, tape devices and other peripherals associated with mainframes and servers as well as other miscellaneous devices needed to support the processing equipment including desktops, laptops, and mobile devices used by personnel supporting the data centers. **Data Center Hardware costs <u>exclude</u>** circuit or similar costs needed to connect to the network, costs for networking equipment (e.g., routers,

Column/Field	Definition
	switches, hubs, firewalls, and monitoring equipment), and costs to connect multiple data centers or processors/devices to each other.
Data Center Electricity	**Data Center Electricity costs <u>include</u>** all electricity used to power data center operations (e.g., servers, environmental, HVAC, lighting). For small data processing environments, Agencies may estimate Data Center Electricity costs by computing electrical costs per square foot and multiplying by the number of square feet of the data processing environment, or by any other consistent, repeatable, justifiable method.
Data Center Facility	**Data Center Facility costs <u>include</u>**: **Costs for IT equipment floor space** (e.g., raised and no-raised floor space used for IT equipment). This is often calculated as the size of the floor space (square footage) multiplied by the monthly rate for that space × 12. **Costs for office and/or other floor space:** This captures the cost for the office space and/or other areas considered part of the data center that is not part of the raised floor space. This is often calculated as the amount of floor space in the data center minus the amount used for IT equipment, multiplied by the monthly rate for that space × 12. **Costs for other facility mechanicals and equipment:** These include costs for the Uninterruptible Power Supply (UPS), redundant power supplies, air conditioning/cooling equipment, power distribution equipment, generators, fuel, and cage access control devices.

AGENCY BUDGET ACCOUNTS SUMMARY

8. How do I report the Agency Budget Accounts Summary?

The Agency Budget Accounts Summary provides an orientation of IT funding levels associated with Budget Accounts/Funding Sources listed for each IT Investment in the Agency IT Investment Portfolio Summary. This summary focusing on the Budget Accounts orientation serves as a tool for agency CIOs and CFOs to collaborate and jointly certify the agency's IT submissions. To support FITARA implementation and drive increased CIO authorities, the goal is to increase the IT funding dollar amount that the CIO has direct oversight authority over within each Budget Account.

The Agency Budget Accounts Summary is to be completed at the agency level (NOT at a component organization level or at an individual Investment level) for the PY, CY and the BY. It should include all budget accounts that fund IT across the entire agency, comprehensive of all component level organizations, for agency funding only, not the amounts included in contribution funding columns in the Agency IT Investment Portfolio Summary. While budget account codes are listed within each IT Investment, this table summarizes the total IT funding levels within each account and the CIO's authority for each. For the CIO Oversight Authority column, a dollar amount should be entered depicting the amount within the budget year that the agency CIO (not a component-level CIO) has direct oversight authority over and decision making authority over, within the total IT funding level listed for each budget account. The amounts should include all funding sources (see the definition of Funding Sources in Appendix C) that are spent on IT. The combined agency total funding for each year in this table should be the same as the agency total funding in the IT Investment Portfolio Summary for the same years.

Budget Account Code	**CIO Oversight Authority** *[BY $M]*	**Total Agency Funding PY 2017**	**Total Agency Funding CY 2018**	**Total Agency Funding BY 2019**

CIO EVALUATION REPORT

9. What is the CIO Evaluation?

This report provides CIO numeric evaluation (1-5) for all Part 1 and Part 2 major IT Investments that reflect the CIO's best judgment of the current level of risk for the Investment in terms of its ability to accomplish its goals (per 40 U.S.C. § 11315 (c)(2)). The evaluation could be informed by the following factors, including but not limited to: risk management, requirements management, contractor oversight, historical performance, human capital, and other factors that the CIO deems important to forecasting future success. CIOs should consult with appropriate stakeholders (e.g. Chief Acquisition Officers, chief management officers, program managers, customers, etc.) in making their evaluation. Each evaluation should include a narrative explanation when the numerical rating has changed since the last evaluation and a numeric rating based on the aforementioned factors.

While CIOs have authority and responsibility over the entire IT portfolio, OMB is only requiring CIO evaluations for major IT Investments that relate to Mission and Administrative Services and Support Systems Investments (Part 1 and Part 2 of the Agency IT Portfolio Summary). OMB is not requiring CIO evaluations for Part 3: IT Infrastructure, IT Security, and IT Management Investments as these reflect a new requirement and level of effort for Agencies to re-work their Investment portfolio. Agencies may elect to provide CIO Evaluations for Part 3 Investments at their discretion.

The following factors and supporting examples can be used to inform the CIO Evaluation:

Evaluation Factor	Supporting Examples
Risk Management	• Risks and associated impact are well understood by senior leadership. • Risk log is current and complete. • Risks are clearly prioritized. • Risk response plans are in place to manage risks. • Change control is established and communicated to all stakeholders (especially with system and process dependencies). *Note*: Risk management implies that active risks are being managed and mitigated accordingly. Active risks include, but are not limited to funding cuts and staffing changes.
Requirements Management	• Product delivery horizons are small in duration and cost. • Investment objectives are clear and scope is controlled. • Requirements are clear and validated. • Stakeholders are actively involved in the requirements process per appropriate methodology. • Product backlog is prioritized periodically based on recent release and stakeholder feedback.
Contractor Oversight	• Acquisition strategy is defined and managed via an Integrated Program/Project Team which includes all the relevant disciplines... • Agency receives key deliverables and reports, such as current status, and risk logs. • Agency is providing appropriate management of contractors such that the government is monitoring, controlling, and mitigating the impact of any adverse contract performance.
Performance	• No significant projected deviations from planned cost, schedule, scope, cost savings/return on Investment, and value of the Investment metrics. • Lessons learned and best practices are incorporated and adopted.
Human Capital	• Qualified management and execution team for the IT Investments and/or contracts supporting the Investment.

Evaluation Factor	Supporting Examples
	• Low turnover rate and hiring contingency in place.
Other	• Other factors that the CIO deems important to forecasting future success.

The following fields will comprise the CIO Evaluation Report:

Column /Field	Description
1	**UII** *[12-digit primary key for all Investments]*
2	**CIO Rating**
3	**CIO Comments**

MAJOR IT BUSINESS CASE

10. What is the purpose of this guidance?

OMB provides specific policy, procedural, and analytic guidelines for planning, budgeting, acquisition, and management of major IT capital Investments in addition to general guidance issued in OMB Circular No. A-11 and OMB Circular No. A-130.

The Agency IT Portfolio Summary and Major IT Business Cases (including Business Case and Business Case Detail) describe the justification, planning, and implementation of an individual capital asset included in the Agency IT Portfolio Summary and serve as key artifacts of the agency's Enterprise Architecture (EA) and CPIC processes.

Beginning in this FY 2019 cycle, Business Cases are only required for Part 1 and Part 2 major IT Investments. OMB will not be requiring Part 3 Investments to complete Business Cases due to the level of effort required to transition to a new Standard Investment structure. Agencies may elect to submit Business Cases for Part 3 Non-Standard Investments at their discretion.

Together, the Major IT Business Case and Major IT Business Case Details provide the budgetary and management information necessary for sound planning, management, and governance of major IT Investments. These documents help Agencies explicitly align IT Investments with strategic and performance goals, and ultimately provide value to the public by making Investment and management information more transparent. As architecture-driven IT Investments are funded in the "Select" CPIC phase, the Investments move forward into the implementation phase. The system development life cycle processes are then followed and actual outputs, schedule, and operational performance expenditures are tracked against planned numbers using performance-based management processes as part of the CPIC "Control" Phase.

11. How will Agencies manage IT capital assets/Investments?

There are three primary OMB Circulars that describe the complete set of requirements regarding the management of IT resources:

1. The Capital Programming Guide of OMB Circular No. A-11 provides guidance on the principles and techniques for effective capital programming.
2. OMB Circular No. A-11, Appendix J explains the principles of financing capital asset acquisitions.
3. OMB Circular No. A-130 establishes additional requirements for EAs, planning and control of information systems and IT Investments, IT Governance, and performance management.

These requirements include, but are not limited to, the following objectives of the CPIC processes for their portfolio of IT resources:

- Implement the strategies and requirements of and manage the full scope of decisions related to all Agencies' IT described in FITARA, Title VIII Subtitle D of the National Defense Authorization Act (NDAA) for Fiscal Year 2015, Pub. L. No. 113-291.
- Ensure that the planning and management of agency IT resources fully implement the requirements of OMB Circular No. A-130, "Management of Federal Information Resources."
- Ensure that covered Agencies shall continue to provide information to the ITDB, as detailed within this guidance, which is issued annually in conjunction with the release of OMB Circular A-11. As a part of that guidance, agency engagements including PortfolioStat, FedStat, OMB and/or agency-led TechStat reviews, and Desk Officer Reviews will be used to meet FITARA requirements. Per OMB M-15-14:
    - TechStat Sessions - A TechStat is a face-to-face, evidence-based accountability review of an IT program with agency leadership. TechStat sessions are a tool for getting ahead of

critical problems in an Investment, turning around underperforming Investments, or terminating Investments if appropriate. For all agency-led TechStat reviews of Investments, the agency shall contact ofcio@omb.eop.gov with the subject line, "[Agency Acronym] TechStat Notification," at least two weeks ahead of the TechStat session. Agencies shall follow the agency's TechStat policy and procedures based on the CIO.gov TechStat Toolkit when managing TechStat sessions. Agencies shall report the outcomes and outputs of all TechStat sessions quarterly, to include a root cause analysis of performance issues, corrective action plans which address these causes, and a timeline for implementing the corrective actions. More detailed reporting guidance is included in the quarterly IDC instructions.

- Evaluate and select capital assets that will support core mission functions performed by the Federal Government and that demonstrate projected returns on Investment that are clearly equal to or better than alternative uses of available public resources. Specifically for IT, the Investments should be informed by and should address performance gaps and goals identified in an agency's strategic plan, annual performance plan, and EA implementation Roadmap and IT asset inventory.
- Initiate improvement to existing assets or acquisition of new assets only after considering alternative governmental source or private sector solutions. Agencies shall maintain an up-to-date comprehensive inventory of all IT systems, IT hardware and software assets at the agency, bureau and program levels that includes details on the product, vendor, and version types.
- Assign an agency functional/business sponsor (separate from the PM) for each Investment who is responsible for the program or function supported or implemented by the Investment. The sponsor is responsible for expressing the value of, ensuring successful implementation of, and providing accurate and timely data for the IT Investment to the agency CIO and OMB. Each major and non-major IT Investment listed in Agency IT Portfolio Summary must include the name of the functional/business sponsor name and title.
- Encourage iterative (e.g. agile) development whenever possible to ensure that solutions are delivered using an iterative approach through close collaboration with product owners and business sponsors who are embedded in iterative (e.g. agile) teams which allows for frequent reassessment in an incremental manner by implementing IT reforms based upon current guidance and best practices such as U.S. Digital Service Playbook, TechFAR, modular development guidance, and Investment guidance.
- Encourage iterative (e.g. agile) development and digitalization where ever possible. Digitalization is an alternative delivery method to automation. "digitalization" is purposely and deliberately differentiated from "automation," a process which has been underway for decades.
    - Automation can be characterized as the use of information technology to speed up existing business processes and interactions, and often can bring significant computing power to assist in performing tasks which would otherwise require excessive amounts of labor and resources. Examples of automation include payroll processing, performing bookkeeping and financial calculations, and even first and second generation web forms that largely mirror the paper forms and business practices upon which they were originally based.
    - Digitalization is fundamentally different from automation in that one of its core premises is to prioritize customer experience. Another core premise of automation is that the power of information technology and the use of user and ecosystem interaction data can, and should be harnessed to redefine, optimize, and personalize the experiences by which Agencies interact both internally and externally. Quite often, digitalization harnesses newer forms of technology (such as mobile, sensors, social media, metadata, shared services, etc.) to deliver a differentiated and personalized end-user experience.

- Structure major planning and acquisition into useful segments with a narrow scope and brief duration. These segments should make adequate use of competition and appropriately allocate risk between the Federal Government and the contractor. The agency CIO must approve or define the cost, schedule, and performance goals for major acquisitions, and the agency's CFO must evaluate the proposed cost goals.
- Based on the agency Information Resources Management (IRM) Strategic Plan, agency leadership will ensure a continuous linkage between Federal, agency, and bureau EAs, demonstrating such consistency through alignment with the agency's Enterprise Roadmap and target architecture, compliance with agency business requirements and standards, as well as identification of milestones, as defined in the agency's EA transition strategy.
- Institute performance measures and management processes to monitor and compare actual performance to planned results. Each methodology should have a set of measures that are consistent, appropriate, and tailored to that methodology.
- Achieve, on average, 90 percent of agency cost, schedule, and performance goals for major acquisitions, per requirements of Federal Acquisition Streamlining Act of 1994 (FASA, Title V). Through the TechStat process and as part of the Clinger-Cohen Act responsibility, Agency Heads should review major acquisitions that have not achieved 90 percent of the goals to determine whether there is a continuing need and what corrective action, including termination, should be taken.
- Ensure that Agencies' financial management systems conform to the requirements of OMB Circular No. A-123, Appendix D (formerly OMB Circular A-127).
- Conduct post-implementation or post-occupancy reviews of capital programming and acquisition processes and projects to validate estimated costs and benefits and to document effective management practices (e.g., lessons learned) for broader use.
- Establish oversight mechanisms that require periodic review of operational capital assets to determine how mission requirements might have changed and whether the asset continues to fulfill ongoing and anticipated mission requirements, deliver intended benefits to the agency and customers, and meet user requirements.
- Develop, maintain, and submit within five business days (upon OMB request) the following Investment artifacts for all major IT Investments, as applicable:
    - Risk management plan and risk register
    - Investment charter, including IPT
    - Acquisition Strategy
    - Investment-level alternative analysis and benefit-cost analysis
    - Release Plan with budget baseline*
    - Product Backlog*
    - Sprint Plan with backlog and burn down chart*
    - Operational analyses (for operational and mixed life cycle systems)
    - Post implementation review results (Investment level or project-specific)
    - Documentation of Investment re-baseline management approval(s)
    - Documentation/justification of an Investment's elimination due to funding, consolidation, reorganization, or split

  *Release plan, Product backlog and sprint plans are project level and not IT Investment level specific. These are required only for software development projects listed under major IT Investments and only for those being managed using iterative (e.g. agile) methodology.

  Note: Specific artifacts standard Part 3: IT Infrastructure, IT Security and Management Investments have not been specified.

12. What other requirements does the Major IT Business Case Detail fulfill?

The Major IT Business Case Detail is designed to coordinate OMB's collection of agency information for its reports to Congress, as required by the Federal Acquisition Streamlining Act of 1994 (FASA, Title V) and Clinger-Cohen Act of 1996. The Major IT Business Case should demonstrate support for the mission statements, long-term goals and objectives, and annual performance plans developed pursuant to the Government Performance and Results Act – Modernization Act (GPRA-MA) of 2010. Major IT Business Case Detail on Major IT Investments establishes reporting requirements through the ITDB to ensure the proper execution of those Investments against the established performance plans.

13. What must I report in the Major IT Business Case and Major IT Business Case Detail, and when?

The policy and budget justification principles in the Major IT Business Case and Major IT Business Case Details apply to all Agencies of the Executive Branch of the Federal Government that are subject to Executive Branch review (see Clinger-Cohen Act of 1996). Section 25 of OMB Circular No. A-11 details this authority to collect and review Business Cases for major IT Investments.

All information necessary to complete the Major IT Business Case and Major IT Business Case Detail should already exist as part of the agency's overall capital planning activities and within project- and program-specific documentation. The materials used to populate Major IT Business Case and Major IT Business Case Detail should be readily available to OMB upon request.

Additional information on the submission process will be posted on the OMB MAX Community IDC page. As always, pre-decisional, IT security-sensitive, and procurement-sensitive information will not be displayed to the public.

All software development projects must produce usable functionality at intervals of no more than six months. Projects that do not involve software development are not required to leverage iterative/agile methodologies. All projects within Investments are required to use modular development principles. All major software development projects within Investments are required to incorporate contract terms that require the use of modular/iterative (e.g. agile) development principles.

Major IT Business Case Details on major IT Investments shall establish cost, schedule, and performance targets for PY and CY. Furthermore, periodic performance metrics updates for ongoing operations will vary according to the nature of the metric, as indicated in Table C1.A.

14. How will Multi-agency Collaboration and Intra-agency Shared Services Investments be captured in the Major IT Business Case and Major IT Business Case Detail?

The managing partners (lead agency that provides services or coordination services to other Agencies or other units within their agency) will take the lead in completing and submitting the Multi-agency collaboration or Intra-agency shared services Major IT Business Case and Major IT Business Case Detail, managing it through the managing partner's capital programming and budget process. The managing partner for Multi-agency or Intra-agency collaboration Investments is also responsible for ensuring that the Investment is included in the their Agency IT Portfolio Summary. It should include all necessary information from the partner agencies (customers who receive services from the managing partners) and should have been approved by all necessary partner organizations through the appropriate governance process.

Specifically, the tracking of partner agency funding, and related capital assets (e.g., migration Investments, Centers of Excellence, Shared Service Providers, supporting components) for Government-wide E-Gov and Line of Business Investments will be captured via the OMB MAX Funding Tool for E-Gov-LoB Initiatives. Managing Partners for Government-wide E-Gov/ LoB Investments listed in Appendix B are required to submit Major IT Business Cases unless they obtain a waiver from OMB.

Shared Service Providers (SSP)s are required to submit Major IT Business Cases using the UIIs listed in

Appendix B. Agencies with significant Investments in financial management, human resources, grants, or acquisitions systems, and/or services that would either provide new or modify existing capabilities to be used government-wide or that would duplicate those already available are required to submit a Major IT Business Case. To help guide OMB funding determinations, the General Services Administration's Unified Shared Services Management (USSM) Office will provide recommendations to OMB on whether customer and provider strategies align with the government-wide shared service approach. When an agency selects a USSM designated Shared Service Provider for migration, the lead in completing and submitting the Major IT Business Case will switch from the customer to the provider. The provider is responsible for coordinating with the customer to provide the total cost of migration. The customer agency will still include this Investment in their Agency IT Portfolio Summary and reference the Current UII of the provider agency in the "Investment Description" field.

During the development of the shared services Major IT Business Case and Major IT Business Case Detail, Agencies are encouraged to utilize the USSM M3 Playbook. The M3 Playbook was created using leading practices and lessons learned from previous migration efforts to increase the likelihood of successful migrations. The USSM will monitor Investments to ensure Agencies are following the disciplined processes outlined in the M3 Playbook and assess project risk in partnership with OMB. Agencies are encouraged to submit the documentation identified in the M3 Playbook for each phase of the Investment for review. High risk Investments, as identified by the USSM in partnership with OMB, will be required to receive approval from OMB prior to advancing to the next phase as identified in the M3 Playbook. OMB may require additional information related to these Investments and will work with the customer and provider Agencies to coordinate data requests.

Partner Agencies should reference the name and Current UII of the Multi-agency/Intra-agency shared services Investment in the "Investment Description" field of their own partner Agency IT Portfolio Summary. Partner agencies should also ensure their activities and participation are included in the appropriate sections of the Multi-agency major IT Business Case. The entire Life Cycle Cost total for the Investment, including funds provided by partner Agencies, should be included in the Multi-agency Collaboration or Intra-agency Shared Services Investments Business Case.

Investments that provide a service to other agencies but do not receive contributions from partner Agencies should be reported as Multi-agency Collaboration Investments. Investments for Multi-agency collaboration, shared services, and/or LoBs will be reflected in the managing partner's annual Enterprise Roadmap submission to OMB.

Managing partners that provide Multi-agency services should ensure that funding is prioritized to accommodate building and obtaining approval of a shared architecture. Approval should be obtained through a working governance model that includes partner Agencies, customers, and OMB.

OMB may require additional information from partner agencies related to the Multi-agency collaboration Major IT Investments. When necessary, OMB will work with the managing partners to coordinate data requests.

16. How will OMB use the Major IT Business Cases?

The Major IT Business Case is one component of the agency's total budget justification (see Section 51.2 of OMB Circular No. A-11). OMB uses data reported in the Major IT Business Case to make quantitative decisions about budgetary resources consistent with the Administration's program priorities as well as qualitative assessments about whether the agency's programming processes are consistent with OMB policies and guidance. OMB may request additional supporting information from Agencies as necessary.

17. What fields are included and how do I complete the Major IT Business Case?

Each Investment identified in the Major IT Business Case must have a UII. The Major IT Business Case captures data on the strategic relevance, planning, budgeting, and technical capability for agency major IT

Investments. Section A refers to the Investment UII's 12-digit coding. Section B includes additional fields concerning how the Investment relates to and supports the agency mission, its cost effectiveness, and a description of leadership. Section C includes fields relevant to Investment past, current, and out-year budgeting. Section D concerns Investment current and planned contract acquisition strategy. Section E includes fields for capturing Systems data for Administrative Services and Support Systems IT Investments. Agencies should complete relevant sections based on the type of Major IT Investment as described in that chart in Section 3: How is IT Spending Categorized?

The following are the sections of the Major IT Business Case:

Section A: General Information	
Column /Field	Description
1	**Investment Name**
2	**UII** *[12-digit primary key for all Investments]*

Section B: Investment Detail	
Column /Field	**Description**
1	Briefly describe the Investment's purpose, goals, and current and/or anticipated benefits (quantitative and/or qualitative). Include the Investment's specific contribution to mission delivery or agency management support functions and identify key customers, stakeholders, and other beneficiaries. *[2500 char]*
2	Provide at least one agency Strategic objective code (A-11 Section 230) and/or agency Priority Goal code (A-11 Section 250) that this Investment aligns to on performance.gov. If this Investment aligns to more than one agency strategic objective code and/or agency Priority goal code list all that apply. If your agency does not report to performance.gov please use "0". You may locate the full list of current agency Strategic objective codes by downloading the spreadsheet available on performance.gov. *[5 digits] This is required for Agency IT Portfolio Summary Part 1 and Part 2 Investments, not for Part 3 Investments.*
3	Briefly describe the Investment's return on Investment, including benefits (internal and external to the government), and outcomes achieved or planned. The planned performance measures in table C.1.A should map to the Investment's planned outcomes and benefits as described in this section. *[2500 char]*
4	Provide specific requirements for this Investment (i.e. legislative mandates, outstanding audit findings or material weakness, Presidential Directive) and how this Investment will meet the requirement. Additionally, provide any applicable URLs to associated requirements. *[2500 char]*
5	Identify the foremost program supported by this Investment, using the Program Code in the Federal Program Inventory Reference Table. If this Investment does not primarily support a single program (e.g. provides Department-wide infrastructure, or supports multiple programs evenly), enter "No Primary Program". *[XXX-XXX or "000-000" for "No Primary Program"]*
6	If this Investment eliminates or reduces another major or non-major IT Investment(s), please list the Investment(s) and their status as represented below. (Eliminated or reduced Investments should be listed until removed from the Agency's IT Investment Portfolio Summary. Most eliminated Investments should remain in the Agency's IT Investment Portfolio Summary for two years.) • Investment UII(s) [12-digit UII] • To Be Status [to be eliminated/to be reduced]

Section B: Investment Detail	
Column /Field	**Description**
7	Does the Investment include a shared service (intra- or Inter-agency (current and/or planned)? *[Yes/No]*
8	Are all systems in this Investment PIV-enabled systems (per HSPD-12 and OMB Memorandum M-11-11)? *[Yes/No]*
9	**Public URL(s):** Provide any public facing URLs associated with this Investment, including APIs (if applicable). List as many URLs as apply, https://…
10	**Paperwork Reduction Act OMB Control Number(s):** If systems contained in this Investment collect data from the public, please identify the OMB Control Numbers which authorize that data collection as per the Paperwork Reduction Act. Use Reginfo at the following link to identify information collection requests and OMB control numbers. Agencies can work with their Records Officers to determine the applicability. *[Optional]*
11	**PM Name**: Provide the name of the Investment-level project/program manager. *[250 char]*
12	**PM Email**: Provide the e-mail address of the Investment-level project/program manager. *[250 char]*
13	**PM Qualifications** • The qualification/experience level of the PM (per OMB M-04-19). • Select one of the following: • FAC-P/PM(DAWIA-3) – Senior • FAC-P/PM(DAWIA-2) – Mid-Level • FAC-P/PM(DAWIA-1) – Entry Level • Other certification with 4 or more years of PM experience (within the last five years) • Other certification with between 2 and 4 years of PM experience (within the last five years) • Other certification with less than two years of PM experience (within the last five years) • No certification, but with 4 or more years of PM experience (within the last five years) • No certification, but with between 2 and 4 years of PM experience (within the last five years) • No certification, but with less than two years of PM experience (within the last five years)

Section C: Life Cycle Costs

Provide the total estimated life cycle cost for this Investment by completing the following table. All totals represent all IT resources and budgetary sources of funding consistent with the Agency IT Portfolio Summary. Totals are to be reported in **millions of dollars**. Variations from planned expenditures will be reflected in Tables B.2.1 and B.2.2 in the Major IT Business Case Detail. Federal personnel costs should be included only in the rows designated as including Govt. FTE costs, such as the Internal Labor Cost Pool, and should be excluded from other costs.

For Multi-agency Investments, this table should include all funding (both managing and partner agency contributions), and subsequently may not match figures provided in the Agency IT Portfolio Summary.

To the degree possible, the costs associated with the entire life cycle of the Investment should be included

in this table. Whether solutions being developed in an iterative (e.g. agile) fashion or other development methodology, for years beyond BY+1, please provide your best estimates for planning purposes, understanding that estimates for out-year spending will be less certain than estimates for BY+1 or earlier.

For lines in the table that ask for changes in your current submission compared to your most recent previous submission, please use the FY 2018 President's Budget as your previous submission. When making comparisons, please ensure that you compare same-year-to-same-year (e.g., the FY17 level for 2017 versus the FY18 level for 2017). Significant changes from the previous submission should be reflected in an updated Investment-level Alternatives Analysis, subject to OMB review.

Note: Do not enter information for the dark gray cells (these will be calculated).

	PY-1 & Prior	PY 2017	CY 2018	BY 2019	BY+1 2020	BY+2 2021	BY+3 2022	BY+4 & Beyond
Planning Costs								
DME (Excluding Planning) Costs								
DME (Including Planning) Internal Labor (Govt. FTE) Costs								
Sub-Total DME (Including Internal labor (Govt. FTE) Costs)								
O&M Costs								
O&M Internal Labor (Govt. FTE) Costs								
Sub-Total O&M Costs (Including Internal Labor (Govt. FTE) Costs)								
Total Cost (Including Internal Labor (Govt. FTE) Costs)								
Total Internal Labor (Govt. FTE) costs								
Number of FTE rep by costs								
Total change from PY final President's Budget ($)								
Total change from PY Final President's Budget (%)								

Table/Field	Description
2.a.	In which year did or will this Investment begin? *[YYYY]* *Specify a year, e.g. PY-1 = 2016*
2.b.	In which year will this Investment reach the end of its estimated useful life? *[YYYY]* *Specify a year, e.g. BY+5 = 2024*
3	Compare the funding levels for PY and CY to the final FY 2019 President's Budget for those same years. Briefly explain any significant changes. *[500 char]* *When making comparisons, ensure that you compare same-year-to-same-year (e.g., the FY17 level for 2017 versus the FY18 level for 2017).*

Section D: Acquisition/Contract Strategy

Existing Contracts

In the table below, provide all awarded prime contracts (or call/task orders) for the Investment (sub-award details are not required) that are in progress with an active period of performance. Planned contracts/procurements in pre-award, including procurements in the market research phase, are not to be included. Completed and expired contracts do not need to be included. Data definitions can be found on the Federal Procurement Data System.

For contract details like contract value and contract types, OMB will pull the authoritative data from FPDS.gov. If the Investment Integrated Project Team (IPT) has questions regarding the data pulled from FPDS, the IPT lead should contact the contract specialist on the IPT with questions.

Field	Data Description
Procurement Instrument Identifier (PIID)	The unique identifier for each contract, agreement, or order (FPDS data element 1A).
Referenced PIID	The unique identifier for the Indefinite Delivery Vehicles (IDV), such as a Government-wide Acquisition Contract (GWAC), Indefinite Delivery Contract (IDC), Federal Supply Schedule (FSS), Basic Ordering Agreement (BOA), or Blanket Purchase Agreement (BPA) under which the contractor support was obtained. This field is only required for IDVs and is FPDS data element 1C.
Modular Approaches/ Contracting	Information if acquisition planning, award, and management actions apply the principles and strategies described in "Contracting Guidance to Support Modular Development"? *[Yes/No]*
Agile Development	Does this contract employ iterative development techniques (e.g agile)? *[Yes/No]*
Purpose of needing this procurement.	A brief description of the purpose of the award, the goods or services to be obtained under the award, and how they fit in the overall project. *While the description in FPDS could be used, OMB requests the Investment IPT provide a summary description for this field to supplement the FPDS data as the IPT information will provide more details.* *[500 char]*
IT Lease	If this acquisition/contract contains a lease (as defined by OMB Circular A-11 Appendix-B), what kind of lease does this contract include? Select from: • Lease-purchase without substantial private risk • Lease-purchase with substantial private risk • Capital lease • Operating lease • Other • Not Applicable
Information Security Clause	Does this contract include information security clauses regarding the use, storage, or other processing of data? *[Yes/No]*

Acquisition Strategy

For planned procurements for this Investment (including those in any pre-award phase, to include active solicitation) please provide the following table. Information on planned Intra-agency Agreements (IAA) or Memoranda of Understanding (MOU) should be included in table 2 of this section.

Field	Data Description
Description of the planned contract support	A brief description of the planned purpose of contract or Inter-agency support, the expected outcomes to be obtained, the support to be acquired (goods or services), and which project outcome or goal will be met or supported by this contract support. Recommend that agencies articulate labor, products, and outcomes. *[1000 char]*
Anticipated award date or IAA/MOU signature	*[MM/DD/YYYY]*. The purpose of this field is to gain insight and to get ahead of the solicitation process.
Solicitation ID	If applicable. The unique identifier used to advertise in FedBizOpps. In the event of multiple solicitations, the most recent Solicitation ID shall be included. If a Solicitation ID is not available, please include a Pre-Solicitation ID.
Length of planned period of support	What is the expected time frame for which this support is needed (please express in terms of base time frame and options? *[e.g. 90 days, 180 days, 1 year, 2 years, 5 years] [20 char]*
Anticipated Value	The anticipated value of the required support.
Modular Approaches/ Contracting	Does the acquisition planning, award, and management approach apply the principles and strategies described in "Contracting Guidance to Support Modular Development"? *[Yes/No]*
Will there be Agile Development	For software development acquisitions, will this contract or suite of contracts or IAA or MOU employ iterative (e.g. agile) development techniques? *[Yes/No/NA]*
Potential sources	What existing sources (schedules, BPAs, contracts, Inter-agency collaborations, or other shared services) or shared services have been considered as potential solutions or sources to meet this need? If an existing solution cannot be leveraged, indicate the challenges and rationale. *[CIOSP3, Schedule 70, etc.]* *[500 char]*
Provider engagement	What strategies are being considered or have been performed to reach out to innovative providers [i.e. market engagement, RFI's, Industry Days, FBO procurement identifier, etc.]? *[1000 char]*
IT Lease	Might this planned procurement contain a lease (as defined by OMB Circular A-11 Appendix-B)? *[Yes/No]* *Note*: Agencies are required to submit to their OMB representatives leasing and other non-routine financing proposals for review of the scoring impact and budget requirements (see A-11 Appendix B—Budgetary Treatment of Lease-Purchases and Leases of Capital Assets).

If the planned contract support or shared service replaces an existing contract arrangement, provide the existing contract(s) that this procurement will replace/restructure or supplement. For each existing contract provide the following:

Field	Data Description
PIID	The unique identifier for each contract, agreement, or order, (FPDS data element 1A)
Referenced PIID	The unique identifier for the Indefinite Delivery Vehicles (IDV), such as a Government-wide Acquisition Contract (GWAC), Indefinite Delivery Contract (IDC), Federal Supply Schedule (FSS), Basic Ordering Agreement (BOA), or Blanket Purchase Agreement (BPA) under which the contractor support was obtained This field is only required for IDVs. And is FPDS data element 1C.

Section E: Systems Inventory (Administrative Services and Support Systems only)

For Investments designated as Part 2 - Administrative Services and Support Systems in column 6 (by entering code "02") of the IT Investment Portfolio Summary, provide a list of systems included in this Investment.

Note: Responses to this field are per FISMA definitions.

Field	Data Description
System Name	*[250 char max]*
Initial Operating Year	*[YYYY]*
Last Major Tech Refresh Date	*[MM/DD/YYYY]*
End of Contracted Support	*[MM/DD/YYYY] Final day of the period of performance.*
Average # of users per month	*[10-digit integer]*

MAJOR IT BUSINESS CASE DETAIL

Major IT Business Case Detail is used to provide OMB with Current Year (FY 2018) and Budget Year (FY 2019) Investment plans and performance data. Include in this exhibit, at a minimum, all projects, activities, and operations scheduled to commence or continue in the CY and/or BY. Information in the Major IT Business Case Detail should reflect current status; therefore, the Federal ITDB should be updated as soon as the data becomes available for continuous updates.

In Major IT Business Case Detail, Investments are described as:

- Investment
  - Projects
    - Activities
  - Operations

Report information about these areas in the following Major IT Business Case Detail sections:

A.1: ***General Information***: Enter basic information about the major IT Investment.

A.2: ***Investment Risk:*** Identify all open risks to the Investment.

B.1: ***Projects****:* Identify all of the Investment's projects with activities occurring in CY and BY.

B.2: ***Activities****:* Outline the activities that are performed to achieve the outcome of each project.

C.1: ***Operational Performance Information****:* Identify performance targets and results for evaluating operations.

Section A.1: General Information	
Column /Field	**Description**
1	**Investment Name** Agency-provided name of Investment, consistent with Agency IT Portfolio Summary.
2	**UII** *[12-digit primary key for all Investments]* Agency-provided UII, consistent with Agency IT Portfolio Summary.

Section A.2: Investment Risk

Risk assessments should include both project and operational risk information from all stakeholders and should be performed throughout the life cycle of the Investment. This section should follow the Regular Updates Reporting schedule (see Section 2.3).

In Table A.2, list active risks at the Investment level and provide risk assessment information. The risks listed should be consistent with what is included in management briefings or agency status reviews on an ongoing basis. It is not necessary to address all 19 OMB Risk Categories. There is not a specified number of risks for Agencies to include for each Investment (minimum of 1). Include the following data in Table A.2:

Column /Field	Description
1	**Risk Name** A short description that identifies the risk, the cause of the risk, and the effect that the risk may have on the Investment. *[500 char]*

Section A.2: Investment Risk	
2	**Risk Category** The relevant OMB Risk Category for each risk. Risk categories include: 1) Schedule 2) Initial costs 3) Life cycle costs 4) Technical obsolescence 5) Feasibility 6) Reliability of systems 7) Dependencies and interoperability between this Investment and others 8) Surety (asset protection) considerations 9) Risk of creating a monopoly for future procurements 10) Capability of agency to manage the Investment 11) Overall risk of Investment failure 12) Organizational and change management 13) Business 14) Data/info 15) Technology 16) Strategic 17) Security 18) Privacy 19) Project resources 20) Records management
3	**Risk Probability** The likelihood of a negative impact for the risk. *[Low, Medium, High]*
4	**Risk Impact** The level of a potential negative impact for the risk. *[Low, Medium, High]*
5	**Mitigation Plan** A short description of how to mitigate the risk. *[500 char]*

Section B: Project Plan and Execution Data

Tables B.1, B.2.1, and B.2.2 are used to report all projects with activities underway in any portion of CY or BY, regardless of where the project occurs in the Investment life cycle (projects may be conducted in Planning, DME, and/or Maintenance). At a minimum, Tables B.1, B.2.1, and B.2.2 should include:

- Projects and activities that started in a previous fiscal year (PY and earlier) that have not been completed by the beginning of the CY;
- Projects and activities that start and finish in the CY and BY **or** start but do not finish in CY or BY; and
- Projects and activities commencing beyond the BY may also be reported, as available.

Include the following data in Table B.1:

Column /Field	Description
1	**Unique Project ID** An agency-specified number that uniquely identifies the project within the Investment.

Section B: Project Plan and Execution Data	
2	**Project Name** Name used by the agency to refer specifically to the project.
3	**Objectives/Expected Outcomes** Description of the project's functionality, capability, or goal.
4	**Project Start Date** Actual start date of in-progress projects or planned start of projects that have not yet begun (may be before the current FY or activities listed in Table B.2.1). *[MM/DD/YYYY]*
5	**Project Completion Date** Planned date of completion of in-progress projects or actual completion date of projects that have been completed (may be after BY or completion date of activities listed in activities Table B.2.1). *[MM/DD/YYYY]*
6	**Project Life-Cycle Cost** Enter the total cost of all activities related to the project as described in OMB Circular A-131 (in $ millions). This only includes costs for the project, and does not include O&M or other sustainment costs.
7	**System Development Life Cycle (SDLC) Methodology** Which development methodology does this project use? 1) Waterfall (Software or System Development) 2) Iterative (Software or System Development): Incremental, Spiral, Agile 3) Not Primarily a Software Development Project or a Systems Development Project
8	**Production Release each 6 months or less?** Does this Project have a production release containing useable functionality at least every 6 months? *[Yes, No, N/A]*
9	**Comment** If this Project does not provide a production release at least every 6 months, please provide a rationale as to why.
10	**When was the last date that a revised product was deployed to production?** This question collects information on how frequently changes to the system are deployed. A change can mean a new or removed feature, a patch, or a bug fix that was deployed via a change in the system's application code. If a system is under version control, this date can be easily determined by looking at the date on which the most recent commit to the production version of the codebase was made. If there has not yet been a release to production, provide the projected first production deployment date. This field is not required for SDLC Methodology 7 "Not Primarily a Software Development Project." [*MM/DD/YYYY]*

Each project listed in table B.1 should have at least one associated activity. Please include any relevant non-iterative (e.g. agile) project activities in Table B.2.1 and include iterative project activities in Table B.2.2.

Project Activity Table B.2.1

In Table B.2.1, describe, at a minimum, all non-iterative (e.g. agile) project activities for projects in Table B.1 that started in a previous FY (PY and earlier) and that have not been completed by the beginning of the CY, as well as activities that are scheduled to start in the current FY and BY. In line with modular development principles, each software development project must produce usable functionality at intervals of no more than six months. Include the following data in Table B.2.1:

Project Activity Table B.2.1	
Column /Field	**Description**
1	**Unique Project ID** An agency-specified number that uniquely identifies the project within this Investment.
2	**Activity Name** A short description consistent with the critical steps within the agency project management methodology.
3	**Activity Description** Describe what work is accomplished by the activity.
4	**Structure ID** Agency-specified identifier that indicates the work breakdown structure (WBS) the agency uses to associate the activity with other activities or a project. Provide this in the format of "x.x.x.x.x" where the first string is the Unique Project ID and each following string (separated by periods) matches the structure ID of a parent activity. See below for more guidance about parent and child activities expressed through this structure. *[x.x.x.x.x]*
5	**Type of Activity** This should only be provided for activities that do not have a child (i.e., lowest level) and that are active/open as of October 1, 2016. Not every project will have every type of activity listed below. Completion of this activity primarily provides: 1) Conceptualization/Planning 2) Requirements Gathering 3) Design / User Experience (UX) 4) Prototype 5) Development 6) Security Testing 7) Iterative Testing 8) Iterative Release 9) Regression Testing 10) User Acceptance Testing 11) Development Operations (DevOps) / Configuration Management 12) Quality Assurance 13) Production Release 14) Retirement 15) This is not a software development related activity 16) Other
6	**Critical Path** Is this activity on the critical path of the successful completion of the project. *[Yes/No]*
7	**Start Date Planned** The planned start date for the activity. This is the baseline value.
8	**Start Date Projected** If the activity has not yet started, enter the current planned start date of the activity.
9	**Start Date Actual** When the activity starts, enter the actual start date here.
10	**Completion Date Planned** The planned completion date for the activity. This is the baseline value.
11	**Completion Date Projected** If the activity has not yet completed, enter the current planned completion date of the activity.

Project Activity Table B.2.1	
12	**Completion Date Actual** When the activity ends, enter the actual completion date here.
13	**Total Costs Planned** The planned total cost for the activity. This is the baseline value. *[$M]* *Note*: For programs that are employing earned value management, Agencies should reflect "budget at completion" in the "Total Costs Planned" field and "estimated at completion" in the "Total Costs Projected" field.
14	**Total Costs Projected** When the activity is not yet completed, enter the current planned total cost of the activity. *[$M]* *Note*: For programs that are employing earned value management, Agencies should reflect "budget at completion" in the "Total Costs Planned" field and "estimated at completion" in the "Total Costs Projected" field.
15	**Total Costs Actual** When the activity ends, enter the actual total costs for the activity here. *[$M]*

Reporting Parent and Child Activities (WBS Structure)

"Child" activities may be grouped under "Parent" activities to reflect the WBS used by the agency to manage the Investment. If a WBS is not used by the agency, report the relationship between parent activities and child activities in "Structure ID" using this method. Agencies are encouraged to report a transparent view of the Investment baseline on the Federal ITDB (at least Level 3 of the WBS). Levels 1 and 2 typically do not provide enough information to describe the work to be accomplished in short enough duration that early warnings of Investment performance can be identified (M-10-27).

When reporting an activity, enter the "Structure ID" as a period-delimited string consisting of the "Unique Project ID" and each nested parent activity between the project level and the child activity. The "Structure ID" to enter will vary depending on the activity's WBS level.

> Example: For child activity 3 that is part of parent activity 10, which in turn is part of parent activity 2, which in turn is part of Project A, enter: A.2.10.3

- Project A
  - Parent Activity 2
    - Parent Activity 10
      - Child Activity 3

There is no limit to the number of nested "child" and "parent" relationships allowed, and this depth may vary from activity to activity and from project to project.

If any of a parent activity's child activities occurs in the current FY, then all child activities of the parent activity must be reported, regardless of their timing. This is to ensure that a complete view of the parent activity is available.

All activities with no child activities must have, at a minimum, *Unique Project ID, Activity Name, Activity Description, Structure ID, Type of Activity, Start Date Planned, Start Date Projected (or Actual), Completion Date Planned, Completion Date Projected (or Actual), Total Costs Planned,* and *Total Costs Projected (or Actual).*

Completed activities must also have *Start Date Actual, Completion Date Actual,* and *Total Costs Actual.* Any parent activities with a child activity must be completely described by the aggregate attributes of its child activities. In the ITDB, the cost and schedule information for parent activities will be based on the cost and schedule information of the lowest level of child activities reported. Agency-submitted cost and

schedule information is not required for parent activities.

Unique Project ID	Activity Name	Structure ID	Start Date Planned	Completion Date Planned	Planned Total Costs
A	Design	A.2	2/1/2017	2/29/2017	$2.5
A	Business Requirements	A.2.1	2/1/2017	2/10/2017	$1.0
A	Technical Requirements	A.2.2	2/11/2017	2/20/2017	$1.0
A	Architecture	A.2.3	2/21/2017	2/29/2017	$0.5

Parent activities like the one highlighted above (Structure ID: A.2) are optional. Reported parent activities values will be ignored, as calculated values will be determined by aggregating the cost and schedule information reported in the child activities.

Project Activity Table B.2.2

If iterative methodology (e.g. agile) is being used, the below table can be leveraged as an alternative to Table B.2.1. This table is being added as an optional alternative to table B.2.1 for iterative-based development projects. This table comes at Agencies' request for an iterative-friendly alternative to report performance. Either table B.2.1 or B.2.2 should be used to enter project activity data the same project can appear in both tables, if applicable. In Table B.2.2, describe, at a minimum, all iterative (e.g. agile) project activities for projects in Table B.1 that started in a previous FY (PY and earlier) and that have not been completed by the beginning of the CY, as well as activities that are scheduled to start in the current FY and BY. The terms and concepts in Table B.2.2 are based on the Agile Scrum Methodology. If you are using another iterative methodology, still complete the table in line with the Agile Scrum Methodology.

Column /Field	Description
1	**Unique Project ID** An agency-specified number that uniquely identifies the project within this Investment.
2	**Release Name** (Activity Name) Feature as defined in Product Backlog.
3	**Release Number** Iteration/Feature as defined in Product Backlog.
4	**Release Description** (Activity Description)
5	**Start Date Planned** Release start date planned. *[MM/DD/YYYY]*
6	**Start Date Actual** Release start date actual. *[MM/DD/YYYY]*
7	**Completion Date Planned** Release completion date planned. *[MM/DD/YYYY]*
8	**Completion Date Actual** Release completion date actual. *[MM/DD/YYYY]*
9	**Total Costs Planned** Total cost planned for the release. *[$M]*
10	**Total Costs Actual** Total cost actual for the release. *[$M]*
11	**NPI** Number of planned iterations/sprints in the release.

12	**NPE** Number of planned Epics (fraction of an Epic is acceptable).
13	**NCE** Number of completed Epics in a release (fraction of an Epic is acceptable).
14	**NCI** Number of completed iterations/sprints in a release.
15	**DTC** How many direct technical contributors are on the project (inclusive of government or contractor engineers and designers that contribute directly to the code base; this number might not equate to the total FTE at the Investment level).
16	**DPC** How many other staff contribute directly to the project (inclusive of government or contractor project managers, testers, agile coaches, and others; this number might not equate to the total FTE at the Investment level).

Section C: Operational Data

Section C applies to operational and mixed life-cycle Investments with operational components. It focuses on operational analysis results and performance metrics.

Operational Analysis

Provide the date and results of the last Operational Analysis (for operational and mixed life cycle systems/Investments).

Date of Analysis	Analysis Results	Analysis Conclusion
[MM/DD/YYYY]	*[Limit: 2500 char] Include a summary of the results including identified actions.*	*[Drop Down menu: continue as is, initiate remediation action, initiate innovation action, initiate modernization/replacement action, initiate disposal action]*

Operational Performance

Performance of operational Investments is continuously monitored to demonstrate the Investment is meeting the needs of the Agency, delivering expected value, and/or being modernized and replaced consistent with the Agency's enterprise architecture. Measures used for monitoring performance should be as "outcome" based as possible rather than "output" based, and should help benchmark Investment performance and should trigger considerations of how the Investment's objectives could be better met, how costs could be reduced, and whether the organization should continue performing a particular function. The OMB Capital Programming Guide (page 44-46) directs that operational performance metrics should seek to answer more subjective questions in the specific areas of:

Customer Satisfaction (Process Results) – Analysis should focus on whether the Investment supports the Investment's customer processes as designed. The focus is on how well the Investment is delivering goods or services it was designed to deliver. Metrics appropriate for monitoring performance in this area might address the following:

- Process execution (e.g. acquisition, efficiency, correctness, completeness, timing);
- Product or service delivery (e.g. quality, timeliness, coverage, availability, satisfaction);
- Technology functionality or usability (e.g. end-user satisfaction);
- Increased access to innovative contractors and providers; and
- Technology performance (e.g. service level agreements).

Strategic and Business Results – Analysis should focus on the effect the Investment has on the performing organization. The focus is on how well the Investment contributes to the organization's achievement of strategic goals, fulfillment of its mission, and/or meeting service level agreements with its customers. Metrics appropriate for monitoring performance in this area would be specific to the strategic or business concern and would typically address effectiveness or the Investment contribution.

Financial Performance – Analysis should focus on the comparison of current performance with a pre-established cost baseline. The Investment should also be subjected to a periodic review for reasonableness and cost efficiency. Metrics appropriate for monitoring performance in this area might address the following:

- Cost control (e.g. costs remaining within the specified constraints);
- Cost reasonableness (e.g. with respect to the cost of similar Investments – benchmarks); and
- Cost efficiency (e.g. cost per unit – transaction, user, query – especially units of business interest).

Innovation – Analysis should focus on identifying means of maintaining or improving Investment performance in terms of the three areas. The focus is on how current acceptable performance might be maintained with fewer resources (i.e. improved efficiency) and/or acceptable performance might be improved with modernized, enhanced, or replaced assets.

Of all the metrics in use to monitor Investment performance fully, report a minimum of five, drawing on those that best reflect the value of the Investment based upon the following:

1. ***Customer Satisfaction (Process Results):*** Provide a minimum of one metric that reflects this area.
2. ***Strategic and Business Results:*** Provide a minimum of three metrics that reflects this area.
    a. *At least one of the metrics must have a monthly reporting frequency.*
    b. *For Investments listed in Part 1 of the Agency IT Investment Portfolio Summary, at least one of these metrics must contribute to a Strategic Objective or Agency Priority Goal.*
3. ***Financial Performance:*** *Reporting metrics that reflect this area is optional.*
4. ***Innovation:*** *Reporting metrics that reflect this area is optional.*

Note: The fifth metric, or more as Agencies may report more than five metrics, can come from any category.

All data will be displayed to the public on the ITDB. Ensure that all metrics provided are publicly releasable.

Defining Metrics

Use the following table to define the attributes of each individual metric:

Table C.1.A	
Column /Field	**Description**
1	**Metric ID** Unique ID provided by Agency for the metric. When reporting actual results (see below), use this ID to reference the correct metric. *[numeric]*

Table C.1.A	
Column /Field	**Description**
2	**Metric Description** Description to help the user understand what is being measured. In this field, describe the units used, any calculation algorithm used, and the definition or limits of the population or "universe" measured. *[500 char]*
3	**Unit of Measure** Brief indication of what quantity is measured (e.g. number, percentage, dollar value) for each metric. *[50 char]*
4	**Performance Measurement Category Mapping** Identify the measurement category, as shown above table C.1A. *[Measurement Category]*
5	**Agency Baseline Capability** What was the quantitative value of your Agency's capability per this metric prior to this Investment's life cycle. If your Agency has not measured this capability before, you may leave this field blank; otherwise, provide the numeric value of the historic capability measurement.
6	**2017 Target** Metric target value from 2017, relative to the reporting frequency. *[numeric]*
7	**2018 Target** Metric target value for 2018, relative to the reporting frequency. *[numeric]*
8	**Measurement Condition** Indicates whether a desired result would be "over target," indicating that the trend should maintain or increase, or "under target," indicating that the trend should maintain or decrease. *[Over target/Under target]*
9	**Reporting Frequency** How often actual measurements will be reported (monthly, quarterly, semi-annually, or annually). Annual reporting frequencies are reserved for annual operating cost measures, performance measures associated with the Agency's annual performance plan, or other measures that can only be appropriately measured on an annual basis. *[Monthly, Quarterly, Semi-Annual, Annual]*
10	**Agency Strategic Objective or Priority Goal** Each Investment must have at least one active metric in the Strategic and Business Results category (of any reporting frequency) tied to the foremost Agency strategic objective (SO), or Agency priority goal (APG). (As required by A-11 Section 230 and Section 250 respectively). Provide that code for the associated metric, using the appropriate code on performance.gov. Agencies that are not required to report to performance.gov may use the "0" code. *[Goal Code]*
11	**Is the Metric Retired?** Check this box when performance metrics are no longer useful for Investment management. *[Check Box]*

Providing Actual Results

As actual results are measured at the appropriate frequency, they should be reported as new entries in Table C.1.B:

Table C.1.B	
Column /Field	**Description**
1	**Metric ID** Unique ID provided by Agency for the metric. When reporting actual results (see below), use this ID to reference the correct metric. *[numeric]*
2	**Actual Result** Actual result measured. *[numeric]*
3	**Date of Actual Result** End date of the most recent reporting period. *[MM/DD/YYYY]*
4	**Comment** Comments for metrics that have not been met will be valuable for OMB and Agency Reviewers. *[500 char] (optional)*

When adding a new metric, include historical actual result information as available.

IT INFRASTRUCTURE AND MANAGEMENT INVESTMENT REPORTS

18. How do IT Infrastructure & Management Investment Reports differ from Major Business Cases?

Beginning with last year's Guidance, Standard IT Infrastructure Investments were introduced. IT Security and Compliance Standard Investment had specific reporting requirements that were part of the Major IT Business Case. This year's Guidance introduces separate Investment Reports with relevant reporting requirements for each Standard IT Infrastructure and Management Investment. Agencies shall, in a multi-year phased approach, realign costs represented in their IT Portfolio Summary Part 3: Infrastructure, Security and Management Non-Standard Investments into Standard Investments that will be consistent throughout and across each Agency. This is intended to provide more visibility to agency CIOs. This approach is in contrast to aggregated and inconsistent Investments at and within each agency. The Standard Investments are related to costs associated with all agencies, not mission-specific, rather commodity IT. As such, each type of Standard Investment will have reports tailored to the commodity IT data that it comprises. Each Investment Report will have its own reporting requirements and frequency.

The required Standard Investments include the following, for which definitions are included in Appendix C: IT Management (*Note:* This standard Investment type does not have an associated Investment Report), IT Security and Compliance, Network, Data Center and Cloud, and End User.

Standard Investment	Reporting Level	Relationship to other reporting	Frequency
IT Security and Compliance	Every cyber security program should be represented as a separate Investment	PMC NIST Framework Performance Metrics: collecting the data required within this Investment Report enables an alignment of budget to risk and performance, thus improving strategic budgeting and decision-making.	Bi-Annually; September – Request – and February – President's Budget
Network	(Optional) Each Network should be represented as a separate Investment	NA	Bi-Annually Quarterly: Projects and Metrics
Data Center and Cloud	(Optional) Each tiered data center should be represented as a separate Investment	IDC: The data required within this Investment Report enables alignment of budget to Data Center inventory and performance metrics.	Bi-Annually Regular updates
End User	(Optional) Agency's discretion whether to report at an agency level, component level, or more granular. Recommend at the point in which End User Services are managed.	IDC: The data required within this Investment Report replaces data previously captured within the IDC.	Bi-Annually Regular updates
Part 3 Non-Standard Infrastructure Investments	Existing major or non-major investments that have not been realigned with Standard Investments (note: Non-Standard Investments will be deprecated by FY 2021 cycle)	As Standard Investments are created the reliance upon non-categorized investments decreases.	Bi-Annually Regular updates

19. IT Security and Compliance Investment Report

Cybersecurity is a top priority for the Administration, and Agencies are now required to report on their standard Investments for IT Security and Compliance at the level that they are managed and executed. In the spirit and support of FISMA and FITARA, every organization managing a security program must now report an Investment to provide visibility of costs and outcomes of its cybersecurity activities. For any Investment designated as an IT Security and Compliance Standard Investment (code "02" in Column 7 of the IT Investment Portfolio Summary), complete the following Investment report.

The following are the sections of the IT Security and Compliance Investment Report:

Section A: General Information	
Column /Field	**Description**
1	**Investment Name**
2	**UII** *[12-digit primary key for all Investments]*

Section B: IT Security Costs and Capabilities

Each dollar spent should maintain or enhance security posture and reduce risks. The intent of this Investment report is to align budget with performance measures that drive cybersecurity outcomes, which will be achieved using data provided in this Investment Report in combination with Agency-reported FISMA metrics. For this reason, it is imperative that Agency CPIC representatives work closely with component and department Chief Information Security Officers to identify security costs and necessary expenditures to address cyber risks to the Agency. Agencies have long reported their performance on metrics tied to the fulfillment of FISMA, which has allowed OMB to work with Agencies to analyze performance over time. During the FY 2017 President's Budget Process, OMB began tying both FISMA metrics and Agency-reported spending on cybersecurity efforts to the *NIST Cybersecurity Framework*. Aligning these data collections allowed OMB to better understand how Agencies were distributing their cybersecurity resources and compare these results to performance on the associated FISMA metrics. The IT Security and Compliance Investment Business Case will further this effort, providing Agencies with the ability to derive an even greater understanding of how both Agency-wide and bureau level budgeting behavior is driving cybersecurity performance in key areas. The table below provides Agencies and bureaus with the ability to report cyber spending at the sub-component/tool level. OMB understands the need for maximum flexibility in budgeting for cybersecurity and urges Agencies to use this Business Case as a tool to clearly explain the value derived from bureau-level and Agency-wide Investments in IT Security and Compliance.

Each record in the table below should represent a unique security capability that corresponds to a NIST Framework Function. The total spending for a given function area will be aggregated based on the spending reported under the capabilities for that category. If no capabilities are reported for a NIST Framework Function, there will be zero spending associated with the category. Agencies should ensure they resubmit security Investments from prior years, as previously submitted information has not transferred over. This information is not required to be updated on a monthly basis.

Following the submission of the IT Security and Compliance Investment Report, Agencies will be asked to identify their top ten priority capabilities from the IT Security Investments. This prioritization should reflect Agency-level priorities, and Agencies will be asked to explain how these Investments will impact Agency risk and provide any additional justification for the Investments.

For any Investment designated as an IT Security and Compliance Standard Investment (code "02" in Column 7 for "Standard IT Infrastructure and Management Category" of the IT Investment Portfolio Summary), complete the following table:

Column/Field Description	
1	**NIST Framework Category** Each capability will be mapped to one of the 5 categories below: 1) Identify 2) Protect 3) Detect 4) Respond 5) Recover
2	**Capability** List the capability associated with the spending in the PY, CY and/or BY years. Agencies are not required to submit a record for each capability or NIST Framework Category. However, at the Agency level, Agencies should try to ensure they provide at least one Capability for each NIST Framework Category. To facilitate more complete reporting, each NIST Framework Category includes an *Other* capability category Agencies may utilize for cybersecurity costs that would not have otherwise been accounted for. Agency spending in any specific *Other* capability category should not exceed 10% of the total spending for that NIST Framework Category. If the reported spending exceeds 10% of overall NIST Function area, Agencies should revisit the capability descriptions to determine if any components of the Investment fall under an existing capability. The descriptions of each capability are included in Appendix D.
3	**Purpose/Outcome** Describe the purpose and intended outcomes from money spent on the reported capability. Also describe any expected fluctuations in spending across the 3 years. *[1000 char]*
4	**PY 2017 Total** Indicate the PY 2017 total on the reported capability, which should include the sum of agency funding and contributions. The sum of all of the Security & Compliance Investment's capabilities should exactly match the sum of total PY DME and O&M Agency Funding and Contributions (columns 17, 18, 23, and 24), as well as match the PY Security & Compliance Cost (column 80) for the Investment from the IT Portfolio.
5	**CY 2018 Total** Indicate the CY 2018 planned total on the reported capability, which should include the sum of agency funding and contributions. The sum of all of the Security & Compliance Investment's capabilities should exactly match the sum of total CY DME and O&M Agency Funding and Contributions (columns 19, 20, 25, and 26), which should also match the CY Security & Compliance Cost (column 81) for the Investment from the IT Portfolio.
6	**BY 2019 Total** Indicate the total BY 2019 planned total on the reported capability, which should include the sum of agency funding and contributions. The sum of all of the Security & Compliance Investment's capabilities should exactly match the sum of total BY DME and O&M Agency Funding and Contributions (columns 21, 22, 27, and 28) for the Investment from the IT Portfolio.

20. Network Investment Report

This Network Standard Investment Report is optional for the FY 2019 cycle and will be required for the FY 2020 cycle. Agencies are encouraged to leverage this report during the FY 2019 cycle so that refinements can be incorporated for the FY 2020 cycle. Any data reported during the FY 2019 cycle will not be made public on the IT Dashboard.

As required in 40 U.S. Code § 11314, the Administrator of GSA is preparing the next generation follow-on to the FTS 2000 program. In order to ensure an orderly transition from the current Networx and Washington Inter-agency Telecommunications System (WITS) capabilities to the future Enterprise Infrastructure Solutions (EIS) contract, Agencies are required to create budget plans for their network and telecommunications capabilities using the Network Investment type. The scope of budget and performance data for this type of IT Investment is different from the mission/business Investment and the other specialty types of Investments. The data collected in the Network/Telecommunications Investment is tailored to only capture data relevant to that type of Investment.

Just as this guidance indicates that Security Investments should be identified where security is managed, Network/Telecommunications Investments should also be identified where the network and telecommunications activities are managed. As is the case where each place an Agency operates a Security Operations Center (SOC) constitutes a Security Investment, each place an Agency operates a Network Operations Center (NOC) will constitute a Network/Telecommunications Investment.

Additionally, Executive Branch Agencies have an existing set of requirements for managing their network and telecommunications capabilities. The data reported is intended to support Agencies and provide OMB with the right level of visibility to measure the extent to which Agencies are complying with those requirements.

Each Network/Telecommunications Investment shall request budget resource requests with the following categories of data:

Service Area	Service Description
Transition Services	Transition services related to the migration from Networx/local network and telecommunications capabilities to EIS capabilities
Data Services	VPN, Ethernet, Optical Wavelength Services, SONET, Private Line, Dark Fiber, IP services
Voice Services	VoIP and Traditional Voice services, Circuit Switched Data Service, Toll Free
Satellite Service	Satellite (mobile and fixed)
Managed Services	Managed Network Services (Including NOCs), web conferencing services, Unified Communications, Integrated Performance Monitoring, Managed Mobility, Audio Conferencing, Video Conferencing
Service Related Equipment	Equipment
Service Related Labor	Sum of both internal and external labor to deliver network or voice services not collected in other categories
Cable and Wiring	Cable and Wiring
Access Arrangements	Dedicated Access Arrangements

The following are the fields in a Network Investment:

Section A: General Information	
Column/Field	**Description**
1	**Investment Name**
2	**UII** *[12-digit primary key for all Investments]*
3	**Brief Description** – Brief description of the organizational/geographic area or areas supported by the network
4	**Network Primary POC** – The name of the primary point of contact for this network's operations
5	**Primary POC Email** – The email address of the primary POC
6	**Anticipated EIS Transition Date** – The date by which it is expected that this network Investment will be transitioned over to the future EIS contract. If this network is not intending to transition to EIS, please indicate such by identifying that it is not applicable, "N/A".

Section B: Investment Cost Details

Complete a table for each Investment component (Transition Services, IPv6 Data Services, IPv4 Data Services, VoIP Voice Services, Legacy Voice Services, Toll Free Voice Services, Managed Network Services NOC, Managed Network Services Unified, Satellite Services, Equipment, Labor, Cable and Wiring, Access Arrangements). The budget definition helps with Agencies in portfolio reviews, and will allow for alignment to appropriate strategic sourcing solutions.

Note: This will be reviewed with proposed cost tables in other standard Investments and normalized where applicable.

Column/Field	Description
1	**Network Component** *Note:* Accepted responses in this field will be limited to the areas described above, specifically: • Transition Services • IPv6 Data Services • IPv4 Data Services • VoIP Voice Services • Legacy Voice Services • Toll Free Voice Services • Managed Network Services NOC • Managed Network Services Unified • Satellite Services • Equipment • Labor • Cable and Wiring • Access Arrangements Definitions for these types can be found above
2	**PY 2017 Costs** *[$M]*
3	**CY 2018 Costs** *[$M]*
4	**BY 2019 Costs** *[$M]*

Section C: Contracts	
Existing Contracts In the table below, provide all awarded prime contracts (or call/task orders) for the Investment (sub-award details are not required). Completed and/or expired contracts do not need to be included. Data definitions can be found at Federal Procurement Data System. For contract details like contract value and contract types, OMB will leverage the authoritative data from FPDS.gov. If the Investment IPT has questions regarding the data used from FPDS, the IPT lead should contact the contracting officer or the contract specialist on the IPT with questions.	
Column/Field	**Description**
1	**Procurement Instrument Identifier (PIID)** – The unique identifier for each contract, agreement, or order (FPDS data element 1A). This field will be null for solicitations which are in the pre-award stage.
2	**Solicitation Identifier** – Identifier used to link transactions in FPDS-NG to solicitation information. *[Variable (Maximum 25 characters)]*
3	**Is IPv4 permitted?** *[yes/no]*
4	**Current Task Order Completion Date** – The date by which this Task Order will be completed and have no additional options.
Future Contracts For planned procurements for this Network Investment (including those in any pre-award phase, to include active solicitation) please include the following data:	
Column/Field	**Description**
5	**Acquisition Strategy** – A brief description of the strategy including a description of the capabilities to be consolidated or retired by the future acquisition and the extent to which there is partnering and/or the sharing or resources of capabilities. If an existing solution cannot be leveraged, indicate the obstacle and the rationale.
6	**Solicitation Identifier** – If in the active solicitation phase of the acquisition process, the identifier used to link transactions in FPDS-NG to solicitation information. *[Variable (Maximum 25 characters)]*
7	**Anticipated Award Date** – *[MM/DD/YYYY]*
8	**Is IPv6 supported?** *[Yes/No]*

Section D: Projects	
Agencies will be working to modernize their network and telecommunication capabilities to more effectively manage capacity, increase connectivity, improve reliability, and achieve other goals. For this reason, Agencies will identify and report the performance of these modernization projects. Agencies should take care to identify projects which transition to IPv6 and VoIP. The scope of the projects does not include network-specific projects that were completed in the PY or prior. Only projects that are active in the CY and anticipated in the BY should be reported. Subsequent budget guidance will include project reporting for PY, CY, and BY. Project data should generally be updated on a monthly basis.	
Column/Field	**Description**
1	**Network Project Name**
2	**Network Project ID –** Primary key for network projects
3	**Brief Description –** Brief description of the project
4	**Objectives/Outcome** – [Transition to IPv6 | Transition to VoIP | Other]
5	**Output –** In an IPv6 transition, number of nodes upgraded to IPv6, in a VoIP transition, number of phones upgraded to VoIP.
6	**Start Date Planned —** The planned start date for the project. This is the baseline value.

7	**Start Date Actual –** When the project starts, enter the actual start date here.
8	**Completion Date Planned –** The planned completion date for the project. This is the baseline value.
9	**Completion Date Actual –** When the project ends, enter the actual completion date here.
10	**Total Costs Planned –** The planned total cost for the project. This is the baseline value. *[$M]*
11	**Total Costs Actual** – When the project ends, enter the actual total costs for the project here. *[$M]*

Section E: Performance Metrics

Performance of an Investment is continuously monitored to demonstrate the Investment is meeting the needs of the Agency, delivering expected value, and/or being modernized and replaced consistent with the Agency's enterprise architecture. Measures used for monitoring performance should be as "outcome" based as possible rather than "output" based, and should help benchmark Investment performance and should trigger considerations of how the Investment's objectives could be better met, how costs could be reduced, and whether the organization should continue performing a particular function. The OMB Capital Programming Guide (page 44-46) directs that operational performance metrics should seek to answer more subjective questions in the specific areas of:

Customer Satisfaction (Process Results) – Analysis should focus on whether the Investment supports the Investment's customer processes as designed. The focus is on how well the Investment is delivering goods or services it was designed to deliver. Metrics appropriate for monitoring performance in this area might address the following:

- Process execution (e.g. efficiency, correctness, completeness, timing);
- Product or service delivery (e.g. quality, timeliness, coverage, availability, satisfaction);
- Technology functionality or usability (e.g. end-user satisfaction); and
- Technology performance (e.g. service level agreements).

Strategic and Business Results – Analysis should focus on the effect the Investment has on the performing organization. The focus is on how well the Investment contributes to the organization's achievement of strategic goals, fulfillment of its mission, and/or meeting service level agreements with its customers. Metrics appropriate for monitoring performance in this area would be specific to the strategic or business concern and would typically address effectiveness or the Investment contribution.

Financial Performance – Analysis should focus on the comparison of current performance with a pre-established cost baseline. The Investment should also be subjected to a periodic review for reasonableness and cost efficiency. Metrics appropriate for monitoring performance in this area might address the following:

- Cost control (e.g. costs remaining within the specified constraints);
- Cost reasonableness (e.g. with respect to the cost of similar Investments – benchmarks); and
- Cost efficiency (e.g. cost per unit – transaction, user, query – especially units of business interest).

Innovation – Analysis should focus on identifying means of maintaining or improving Investment performance in terms of the three areas. The focus is on how current acceptable performance might be maintained with fewer resources (i.e. improved efficiency) and/or acceptable performance might be improved with modernized, enhanced, replaced assets.

Defining Metrics

Use the following table to define the attributes of each individual metric:

Column /Field	Description
1	**Metric ID** Unique ID provided by agency for the metric. When reporting actual results (see below), use this ID to reference the correct metric. *[numeric]*
2	**Metric Description** Description to help the user understand what is being measured. In this field, describe the units used, any calculation algorithm used, and the definition or limits of the population or "universe" measured. *[500 char]*
3	**Unit of Measure** Brief indication of what quantity is measured (e.g. number, percentage, dollar value) for each metric. *[50 char]*
4	**Performance Measurement Category Mapping** Identify the measurement category, as shown above table C.1A. *[Measurement Category]*
5	**Agency Baseline Capability** What was the quantitative value of your agency's capability per this metric prior to this Investment's life cycle? If your agency has not measured this capability before, you may leave this field blank. Otherwise, provide the numeric value of the historic capability measurement.
6	**2017 Target** Metric target value from 2017, relative to the reporting frequency. *[numeric]*
7	**2018 Target** Metric target value for 2018, relative to the reporting frequency. *[numeric]*
8	**Measurement Condition** Indicates whether a desired result would be "over target," indicating that the trend should maintain or increase, or "under target," indicating that the trend should maintain or decrease. *[Over target/Under target]*
9	**Reporting Frequency** How often actual measurements will be reported (monthly, quarterly, semi-annually, or annually). Annual reporting frequencies are reserved for annual operating cost measures, performance measures associated with the agency's annual performance plan, or other measures that can only be appropriately measured on an annual basis. *[Monthly, Quarterly, Semi-Annual, Annual]*
10	**Agency Strategic Objective or Priority Goal** Each Investment must have at least one active metric in the Strategic and Business Results category (of any reporting frequency) tied to the foremost agency strategic objective (SO), or agency priority goal (APG) (as required by A-11 Section 230 and Section 250 respectively). Provide that code for the associated metric, using the appropriate code on performance.gov. Agencies that are not required to report to performance.gov may use the "0" code. *[Goal Code]*
11	**Is the Metric Retired?** Check this box when performance metrics are no longer useful for Investment management. *[Check Box]*

Providing Actual Results

As actual results are measured at the appropriate frequency, they should be reported as new entries in the below table:

Column /Field	Description
1	**Metric ID** Unique ID provided by Agency for the metric. When reporting actual results (see below), use this ID to reference the correct metric. *[numeric]*
2	**Actual Result** Actual result measured. *[numeric]*
3	**Date of Actual Result** End date of the most recent reporting period. *[MM/DD/YYYY]*
4	**Comment** Comments for metrics that have not been met will be valuable for OMB and agency Reviewers. *[500 char] (optional)*

When adding a new metric, include historical actual result information as available.

The table below lists standard metrics to be used for this Investment Report.

Metric Description	Definitions
Latency	The delay or amount of time it takes a unit of data (referred to as a packet) to traverse from one endpoint (i.e. client laptop) to the other end point (i.e. server or host system) across a network. Factors that contribute to latency include propagation delay, bandwidth delay, protocol delay and congestion. Can be collected as Monthly average in ms or Peak Hour Average.
Jitter	Variation of network latency
Packet Loss	A condition where packets are ‘dropped’ and do not reach their final destination
Network Availability	The time a network that is continuously operational for a desirably long length of time. Availability can be measured relative to "100% operational" or "never failing”.
DNS Availability	The time a DNS that is continuously operational for a desirably long length of time. Availability can be measured relative to "100% operational" or "never failing”.

21. Data Center and Cloud Standard Investment Report

The Data Center and Cloud Standard Investment Report is optional for the FY 2019 cycle and will be required for the FY 2020 cycle for each of their tiered data centers and private-sector cloud instances.[3] Agencies are encouraged to leverage this report during the FY 2019 cycle so that refinements can be incorporated for the FY 2020 cycle. Any data reported during the FY 2019 cycle will not be made public on the ITDB.

21.1 Tower Mapping

The new Data Center and Cloud Standard Investment Report type combines three TBM Framework IT Towers: Data Center, Compute, and Storage.

- **Data Center:** Purpose-built data center facilities that house and protect critical IT equipment including the space, power, environment controls, racks, and cabling, and that require data center specific upkeep (commonly known as "smart hand" support).
- **Compute:** Physical servers running a version of Microsoft's Windows Server or the Linux operating system; IBM AS/400 platform; servers running vendor-specific, proprietary Unix operating systems (e.g., IBM AIX, Sun Solaris, HP UX); and traditional mainframe computers and operations running legacy operating systems.
- **Storage:** Offline storage resources used for archival, backup, and recovery efforts to prevent data loss or data corruption, support disaster recovery and compliance requirements of the distributed storage; and mainframe offline storage (i.e. any storage resources used for archive, backup and recovery to support data loss, data corruption, disaster recovery, and compliance requirements of the mainframe storage).
- **Cloud:** Virtual servers running a version of Microsoft's Windows Server or the Linux operating system; hardware, software, labor, and support services and central storage such as SAN, NAS, and similar technologies for the distributed compute infrastructure; and equipment, software, and labor to run and operate; mainframe online storage (i.e. attached storage arrays and the associated equipment, software, and labor) to run and operate.

21.2 Scenario Mapping

Data Center and Cloud Standard Investment Reports shall be captured at the physical location where the data center is located or, for cloud environments, at the management unit operating the cloud infrastructure. This shall include all tiered data centers, including those housing high-performance computing (HPC)[4] capabilities. This standard Investment type will accommodate Agencies' different data center infrastructure configurations as follows:

- **A Single Tiered Data Center:** In this scenario, the agency is reporting this data center through the quarterly IDC with a Tier Classification equal to "Tiered". This data center requires a Data Center and Cloud Standard Investment Report. In addition, the agency shall provide the Federal Real Property Profile ID (for physical data centers in owned or leased property) associated with their data center. Agencies with multiple tiered data centers shall submit spending on each data center data center *separately*.

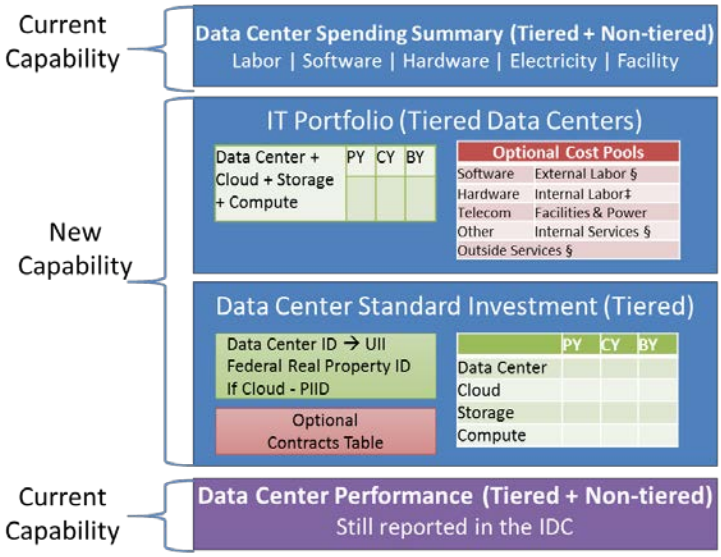
[3] These categorizations of data centers map to Agencies' quarterly IDC submissions, in which each record is identified as a tiered data center, a non-tiered data center, or a private-sector cloud instance, as per the definitions established in OMB M-16-19, "Data Center Optimization Initiative (DCOI)", August 1, 2016, https://obamawhitehouse.archives.gov/sites/default/files/omb/memoranda/2016/m_16_19_1.pdf and in OMB's Quarterly IDC Instructions.

[4] Computing capabilities that are measured in floating point operations per second (FLOPS) typically either gigaFLOPS (10^9) or teraFLOPS (10^{12}).

- **A Tiered Data Center with High Performance Computing (HPC) Capabilities:** In this scenario the agency is reporting this data center through the quarterly IDC with a Tier Classification equal to "Tiered" and with a non-zero number of HPC nodes. This data center requires a Data Center and Cloud Standard Investment Report. In addition, the agency shall provide the Federal Real Property Profile ID (for physical data centers in owned or leased property) associated with their data center with HPC capabilities.
- **Tiered Data Center with a Physical Location Connected to One or More Cloud Capabilities:** In this scenario the agency is reporting this data center through the quarterly IDC with a Tier Classification equal to "Tiered" and the facility is connected to one or more cloud capabilities. For example, an agency might manage some resources in-house, while hosting other key parts of their IT infrastructure as a public or managed service (also known as a hybrid cloud). This data center requires a Data Center and Cloud Standard Investment Report. Furthermore, all cloud instances associated with this data center should be identified by their corresponding Procurement Instrument Identifier (PIID).
- **A Data Center that Consumes Data Center Shared Services from another agency:** In this scenario the agency is reporting this data center through the quarterly IDC with a Tier Classification equal to "Tiered" and the facility is connected to one or more cloud capabilities. As a result, the agency would report spending associated with the Internal Services (i.e. federal managed service provider) cost pool.
- **A Data Center that Provides Data Center Shared Services to another agency**: Federal government data centers that are providing data center shared services to another federal government agency shall incorporate their costs for each cost pool associated with the data center for each applicable sub-Tower.
- **A Cloud Data Center (also known as private-sector cloud or "the public cloud"):** This scenario includes IaaS and PaaS as well as HPC-equivalent cloud implementations not located on Federal facilities. SaaS costs will be captured under the End User Investment. The agency shall incorporate their cost for each cost pool associated with their cloud data center for each sub-Tower. Agencies with multiple cloud data centers shall report spending on each instance *separately*. All cloud Investments should be separated by their corresponding Procurement Instrument Identifier number (PIID).
- **A Non-Tiered Data Center with a Physical Location:** This scenario does not require submission of a Data Center and Cloud Standard Investment Report. OMB shall infer spending on these data centers in the aggregate, using appropriate columns from Agencies' Data Center Spending Summary Table minus the sum of spending on tiered and cloud data centers from the Data Center and Cloud Standard Investment Reports.

The "Data Center ID" identifier in OMB's Integrated Data Collection (IDC) will be used to connect Agencies' data centers inventory and performance data. This will be combined with budget and spending data that will be captured in their Data Center and Cloud Standard Investment and associated Investment Reports to inform oversight and Investment decision-making by both the Agencies and OMB.

There is not an expectation that the sum of these standard Investment totals will match the total Data Center Spending Summary. The following illustration depicts the state of reporting for the Data Center and Cloud Standard Investment Reports:



Section A: General Information	
Column /Field	**Description**
1	**Investment Name**
2	**UII** *[12-digit primary key for all Investments]*
3	**OMB Agency Code** (*See:* Appendix C of OMB Circular No. A-11)
4	**OMB Bureau Code** (*See:* Appendix C of OMB Circular No. A-11)
5	**Data Center ID** – The unique identifier from your agency's data center inventory, which is submitted to OMB on a quarterly basis in conjunction with the Integrated Data Collection (IDC). Each of your agency's Data Center and Cloud Standard Investment Report must map to its corresponding IDC record by way of this identifier. To be put in contact with your agency's IDC submitters and obtain a list of your agency's correct "Data Center ID"s, email DataPointSupport@omb.eop.gov.
6	**Federal Real Property Profile ID** – The unique identifier used for records in GSA's Federal Real Property Management System, pursuant to Executive Order 13327. ***Required for all physical data centers in owned or leased property.***

Section B: Investment Cost Details

The table below shall be reported for each of the tiered and cloud data centers in each agency's inventory. All costs shall be reported for each of the PY, CY, and BY submission years and shall be expressed in millions of US dollars.

Column/Field	Description
1	**Component** *Note:* Accepted responses in this field will be limited to the areas described above, specifically: • Data Center • Cloud • Storage • Compute
2	**PY 2017 Costs** *[$M]*
3	**CY 2018 Costs** *[$M]*
4	**BY 2019 Costs** *[$M]*

Section C: Contracts/Acquisition Strategy

Beginning with the FY 2019 submissions, Agencies have the option to submit the following contracts tables, which will allow OMB to view Agencies' contract information associated with each data center or cloud Investment through FPDS using the Procurement Instrument Identifier (PIID).

Existing Contracts – for all awarded prime contracts (or task orders). Completed contracts do not need to be included. Data definitions can be found at the Federal Procurement Data System.

Column/ Field	Description
1	**Procurement Instrument Identifier (PIID)** – The unique identifier for each contract, agreement, or order (FPDS data element 1A). Will be null for solicitations in the pre-award stage.
2	**Solicitation Identifier** – Identifier used to link transactions in FPDS-NG to solicitation information.
3	**Current Task Order Completion Date** *[MM/DD/YYYY]*– The date by which this Task Order will be completed and have no additional options.
4	**Physical Data Center –** Indicate whether this contract is related to a physical data center.

Future Contracts
For planned procurements for this Investment (including those in any pre-award phase, as well as active solicitations) please include the following data:

Column/ Field	Description
5	**Acquisition Strategy** – A brief description of the strategy, including a description of the capabilities to be consolidated or retired by the future acquisition and the extent to which there is partnering and/or the sharing of resources or capabilities.
6	**Solicitation Identifier** – If in the active solicitation phase of the acquisition process, the identifier used to link transactions in FPDS-NG to solicitation information.
7	**Anticipated Award Date** *[MM/DD/YYYY]*

8	**Physical Data Center** *[Yes/No]* **–** Indicate whether this contract is related to a physical data center

Section D: Performance Measures
For the 2019 budget year submissions, performance metrics and measures for Data Center and Cloud Investments shall continue to be calculated by OMB from Agencies' quarterly IDC data center inventory submissions, in order to reduce agency burden and ensure consistency and fidelity of those metrics. OMB will leverage the "Data Center ID" to combine performance and spending data for each individual data center or cloud instance.

22. End User Standard Investment Report

This End User Investment Report is optional for the FY 2019 cycle and will be required for the FY 2020 cycle. Agencies are encouraged to leverage this report during the FY 2019 cycle so that refinements can be incorporated for the FY 2020 cycle. Any data reported during the FY 2019 cycle will not be made public on the IT Dashboard.

Agencies have the ability to determine the most appropriate level of and approach to reporting Investments in this section. The crucial requirement is that the Investments are reported where they are managed. If, for example, software is acquired and deployed at the enterprise level, then a single Investment identifying the software that is managed in that manner makes sense. If there is a bureau, component, mode or sub-agency that acquires and manages other off the shelf software to meet a local requirement, those acquisitions and their budget should be reported separately.

The End User Investment Report should include costs and relevant information necessary for decision-making and management oversight of the agency's End User portfolio which includes:

- **Workspace (Workstations):** Client compute physical desktops, portable laptops, thin client machines, peripherals (including monitors, pointer devices and attached personal printers) used by individuals to perform work. This does not include furniture. This aligns directly with the Laptop/Desktop category management memorandum M-16-02.
- **Mobile Devices:** Client compute tablets, smart phones (iOS, Android, Windows Mobile) and apps used by individuals to perform work. This aligns directly with the mobile category management memorandum, M-16-20.
- **End User Software:** Client related software used to author, create, collaborate, and share documents and other content. Examples include email, communications, messaging, work processing, spreadsheets, presentations, desktop publishing, graphics, and others. Optional Level 3 categories include Productivity, Communications, and Collaboration. This aligns to the category management software memorandum M-16-12, as well as the Cybersecurity National Action Plan (CNAP).
- **Network Printers:** Printers located on or near users' desktops. Examples include network connected personal printers, ink-jet printers, laser printers, departmental or copy-room printers. Only include network connected printers. Do not include personal printers connected directly to an end user computer, they should be included in Workspace (above).
- **Conferencing & AV:** Audio and video conferencing equipment typically used in conference rooms and dedicated telepresence rooms to enable workforce communications.
- **IT Helpdesk:** Centralized Tier 1 help desk resources that handle user requests, answer questions, and resolve issues.
- **Deskside Support:** Local support resources that provide on-site support for moves, adds, changes, and hands on issue resolution.

Information and data collected through this report will be used for category management analysis and oversight. OMB memos on Category Management are listed in Appendix A. The desire is to capture budget and performance data in one central place and no longer need to capture this data within the Integrated Data Collection (IDC) quarterly reporting process.

The following are the sections of the End User Investment Report:

Section A: General Information	
Column /Field	**Description**
1	**Investment Name**
2	**UII** *[12-digit primary key for all Investments]*

Section B: Investment Cost Details

The below table includes Investment components/sub-Towers (workspace, mobile devices, end user software, network printers, conferencing & AV, IT Helpdesk, Deskside Support). This Investment may not have all components/sub-Towers, please complete the table based upon what is applicable for the scope of this Investment. The budget definition helps with Agencies in portfolio reviews, and will allow for alignment to appropriate strategic sourcing solutions.

Column /Field	Description
1	**End User Component** *Note:* Accepted responses in this field will be limited to the areas described above, specifically: • Workspace • Mobile Devices • End User Software • Network Printers • Conferencing & AV • IT Helpdesk • Deskside Support
2	**Total PY 2017 Costs** *[$M]*
3	**Total CY 2018 Costs** *[$M]*
4	**Total BY 2019 Costs** *[$M]*

Section C: Contracts/Acquisition Strategy Tables

Beginning with the FY 2019 submissions, Agencies have the option to submit the following contracts tables, which will allow OMB to view Agencies' contract information associated with each end user Investment through FPDS using the Procurement Instrument Identifier (PIID).

Existing Contracts – for all awarded prime contracts (or task orders). Completed contracts do not need to be included. Data definitions can be found at the Federal Procurement Data System.	
Column / Field	**Description**
1	**Procurement Instrument Identifier (PIID)** – The unique identifier for each contract, agreement, or order (FPDS data element 1A). Will be null for solicitations in the pre-award stage.
2	**Solicitation Identifier** – Identifier used to link transactions in FPDS-NG to solicitation information.

3	**Current Task Order Completion Date** – The date by which this Task Order will be completed and have no additional options.
4	**Contract Type –** The area of end user under which the contract falls, limited to the End User Components defined above, specifically: • Workspace • Mobile Devices • End User Software • Network Printers • Conferencing & AV • IT Helpdesk • Deskside Support

Future Contracts
For planned procurements for this Investment (including those in any pre-award phase or active solicitations) please include the following data:

Column / Field	Description
5	**Acquisition Strategy** – A brief description of the strategy, including a description of the capabilities to be consolidated or retired by the future acquisition and the extent to which there is partnering and/or the sharing or resources of capabilities.
6	**Solicitation Identifier** – If in the active solicitation phase of the acquisition process, the identifier used to link transactions in FPDS-NG to solicitation information.
7	**Anticipated Award Date** – *[MM/DD/YYYY]*
8	**Contract Type –** The area of end user under which the contract falls, limited to the End User Components defined above, specifically: • Workspace • Mobile Devices • End User Software • Network Printers • Conferencing & AV • IT Helpdesk • Deskside Support

Section D: Projects

Please complete if there are efforts to roll out deployments for strategic initiatives within this Investment area. Examples might include:

- Laptop/Desktop Refresh
- Laptop/Desktop Standard Configurations
- Helpdesk consolidation
- Software license consolidation
- Migration to cloud collaboration tools

Column/Field	Description
1	**End User Project Name**
2	**End User Project ID** – primary key for End User projects
3	**Brief Description** – Brief description of the project
4	**Start Date Planned** *[MM/DD/YYYY]* – The planned start date for the project. This is the baseline value.
5	**Start Date Actual** *[MM/DD/YYYY]* – When the project starts, enter the actual start

	date here.
6	**Completion Date Planned** *[MM/DD/YYYY]* – The planned completion date for the project. This is the baseline value.
7	**Completion Date Actual** *[MM/DD/YYYY]* – When the project ends, enter the actual completion date here.

Section E: Performance Metrics

Performance of an Investment is continuously monitored to demonstrate the Investment is meeting the needs of the agency, delivering expected value, and/or being modernized and replaced consistent with the agency's enterprise architecture. Measures used for monitoring performance should be as "outcome" based as possible rather than "output" based, should help benchmark Investment performance, and should trigger considerations of how the Investment's objectives could be better met, how costs could be reduced, and whether the organization should continue performing a particular function. The OMB Capital Programming Guide (page 44-46) directs that operational performance metrics should seek to answer more subjective questions in the specific areas of:

Customer Satisfaction (Process Results) – Analysis should focus on whether the Investment supports the Investment's customer processes as designed. The focus is on how well the Investment is delivering goods or services it was designed to deliver. Metrics appropriate for monitoring performance in this area might address the following:

- Process execution (e.g. efficiency, correctness, completeness, timing);
- Product or service delivery (e.g. quality, timeliness, coverage, availability, satisfaction);
- Technology functionality or usability (e.g. end-user satisfaction); and
- Technology performance (e.g. service level agreements).

Strategic and Business Results – Analysis should focus on the effect the Investment has on the performing organization. The focus is on how well the Investment contributes to the organization's achievement of strategic goals, fulfillment of its mission, and/or meeting service level agreements with its customers. Metrics appropriate for monitoring performance in this area would be specific to the strategic or business concern and would typically address effectiveness or the Investment contribution.

Financial Performance – Analysis should focus on the comparison of current performance with a pre-established cost baseline. The Investment should also be subjected to a periodic review for reasonableness and cost efficiency. Metrics appropriate for monitoring performance in this area might address the following:

- Cost control (e.g. costs remaining within the specified constraints);
- Cost reasonableness (e.g. with respect to the cost of similar Investments – benchmarks); and
- Cost efficiency (e.g. cost per unit – transaction, user, query – especially units of business interest).

Innovation – Analysis should focus on identifying means of maintaining or improving Investment performance in terms of the three areas. The focus is on how current acceptable performance might be maintained with fewer resources (i.e. improved efficiency) and/or acceptable performance might be improved with modernized, enhanced, replaced assets.

Defining Metrics

Use the following table to define the attributes of each individual metric:

Column /Field	Description
1	**Metric ID** Unique ID provided by agency for the metric. When reporting actual results (see below), use this ID to reference the correct metric. *[numeric]*
2	**Metric Description** Description to help the user understand what is being measured. In this field, describe the units used, any calculation algorithm used, and the definition or limits of the population or "universe" measured. *[500 char]*
3	**Unit of Measure** Brief indication of what quantity is measured (e.g. number, percentage, dollar value) for each metric. *[50 char]*
4	**Performance Measurement Category Mapping** Identify the measurement category, as shown above table C.1A. *[Measurement Category]*
5	**Agency Baseline Capability** What was the quantitative value of your agency's capability per this metric prior to this Investment's life cycle. If your agency has not measured this capability before, you may leave this field blank. Otherwise, provide the numeric value of the historic capability measurement.
6	**2017 Target** Metric target value from 2017, relative to the reporting frequency. *[numeric]*
7	**2018 Target** Metric target value for 2018, relative to the reporting frequency. *[numeric]*
8	**Measurement Condition** Indicates whether a desired result would be "over target," indicating that the trend should maintain or increase, or "under target," indicating that the trend should maintain or decrease. *[Over target/Under target]*
9	**Reporting Frequency** How often actual measurements will be reported (monthly, quarterly, semi-annually, or annually). Annual reporting frequencies are reserved for annual operating cost measures, performance measures associated with the agency's annual performance plan, or other measures that can only be appropriately measured on an annual basis. *[Monthly, Quarterly, Semi-Annual, Annual]*
10	**Agency Strategic Objective or Priority Goal** Each Investment must have at least one active metric in the Strategic and Business Results category (of any reporting frequency) tied to the foremost agency strategic objective (SO), or agency priority goal (APG) (as required by A-11 Section 230 and Section 250 respectively). Provide that code for the associated metric, using the appropriate code on performance.gov. Agencies that are not required to report to performance.gov may use the "0" code. *[Goal Code]*
11	**Is the Metric Retired?** Check this box when performance metrics are no longer useful for Investment management. *[Check Box]*

Providing Actual Results

As actual results are measured at the appropriate frequency, they should be reported as new entries in the below table:

Column /Field	Description
1	**Metric ID** Unique ID provided by agency for the metric. When reporting actual results (see below), use this ID to reference the correct metric. *[numeric]*
2	**Actual Result** Actual result measured. *[numeric]*
3	**Date of Actual Result** End date of the most recent reporting period. *[MM/DD/YYYY]*
4	**Comment** Comments for metrics that have not been met will be valuable for OMB and agency Reviewers. *[500 char] (optional)*

When adding a new metric, include historical actual result information as available.

Available Metrics

Please leverage the below standard metrics for End User to the extent possible. Agencies are not limited to only reporting the below metrics.

Metric Description	Unit of Measure	Target 2017	Target 2018	Measurement Condition	Reporting Frequency	Performance Measurement Category Mapping
% of all procured laptops and desktops compliant with the standard specifications	Percent	80	80	Over Target	Quarterly	2 - Strategic and Business Results
% of equipment covered by this investment that complies with the agency-wide uniform refresh cycle	Percent			Over Target	Quarterly	2 - Strategic and Business Results
Cost per agency user for Workspace/ Workstations	$	Agency can use the PMA Benchmark Report to help set these targets		Under Target	Quarterly	2 - Strategic and Business Results
Cost per agency user for Mobile Devices	$			Under Target	Quarterly	2 - Strategic and Business Results
Cost per agency user for End User Software	$			Under Target	Quarterly	2 - Strategic and Business Results
Cost per agency user for Network Printers	$			Under Target	Quarterly	2 - Strategic and Business Results
Cost per agency user for Conferencing & AV	$			Under Target	Quarterly	2 - Strategic and Business Results
Cost per agency user	$			Under Target	Quarterly	2 - Strategic and

for IT Helpdesk						Business Results
Cost per agency user for Deskside Support	$			Under Target	Quarterly	2 - Strategic and Business Results
Help Desk Services -Time to First Response	Minutes			Under Target	Monthly	1 - Customer Satisfaction (Results)
Help Desk Services - First Call Resolution Rate	%	Agency can use the PMA Benchmark Report to help set these targets		Over Target	Monthly	1 - Customer Satisfaction (Results)
Help Desk Services - Abandonment Rate	%	Agency can use the PMA Benchmark Report to help set these targets		Under Target	Monthly	1 - Customer Satisfaction (Results)

APPENDIX A. LEGAL REGULATORY AUTHORITIES

The Federal Government must effectively manage its portfolio of capital assets to ensure scarce public resources are wisely invested. Capital programming integrates the planning, acquisition, and management of capital assets into the Budget decision-making process. It is intended to assist Agencies in improving asset management and in complying with the results-oriented requirements of:

- The Federal Information Technology Acquisition Reform (FITARA) is Title VIII Subtitle D Sections 831-837 of H.R.3979 - Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015.
- The Clinger-Cohen Act of 1996, which requires Agencies to use a disciplined CPIC process to acquire, use, maintain, and dispose of IT in alignment with the agency's EA planning processes. OMB policy for the management of Federal information resources is detailed in Circular No. A-130 (P.L. 104-106), Management of Federal Information Resources.
- The Government Performance and Results Act (GPRA) of 1993, which establishes the foundation for Budget decision making to achieve strategic objectives in order to meet agency mission objectives. Instructions for preparing strategic plans, annual performance plans, and annual program performance reports are provided in Part 6 of OMB Circular No. A-11, Section 220 (P.L. 103-62).
- The GPRA Modernization Act of 2010 (P.L. 111-352), which requires quarterly performance assessments of Federal Government priorities and establishes Agency Performance Improvement Officers and the Performance Improvement Council.
- The Federal Managers Financial Integrity Act of 1982 (P.L. 97-255), Chief Financial Officers Act of 1990 (CFO Act) (P.L. 101-576), and Federal Financial Management Improvement Act of 1996 (P.L. 104-208), which require accountability of financial and program managers for financial results of actions taken, control over the Federal Government's financial resources, and protection of Federal assets. OMB policies and standards for developing, operating, evaluating, and reporting on financial management systems are contained in Circular No. A–127, Financial Management Systems and OMB Circular No. A-136.
- The Paperwork Reduction Act of 1995 (P.L. 96-511), which requires Agencies to perform their information resources management activities in an efficient, effective, and economical manner.
- The Federal Information Security Management Act (FISMA) of 2002 (P.L. 107-347), which requires Agencies to integrate IT security into their capital planning and EA processes, conduct annual IT security reviews of all programs and systems, and report the results of those reviews to OMB.
- The E-Government Act of 2002 (P.L. 107–347), which requires Agencies to support Governmentwide E-Government (E-Gov) initiatives and to leverage cross-agency opportunities to further E-Gov. The Act also requires Agencies to establish a process for determining which government information the agency intends to make available and accessible to the public on the Internet and by other means. In addition, the Act requires Agencies to conduct and make publicly available privacy impact assessments (PIAs) for all new IT Investments, administering information in an identifiable form collected from or about members of the public.
- The National Technology Transfer and Advancement Act of 1995 (P.L. 104-113) and OMB Circular No. A-119, which state that voluntary consensus standards are the preferred type of standards for Federal Government use. When it would be inconsistent with law or otherwise impractical to use a voluntary consensus standard, Agencies must submit a report to OMB through NIST describing the reason(s) for the agency's use of government-unique standards in lieu of voluntary consensus standards.
- The Federal Records Act (44 U.S.C. Chapters 21, 29, 31, and 33), which requires Agencies to establish standards and procedures to ensure efficient and effective records management. The National Archives and Records Administration (NARA) issues policies and guidance for

Agencies to meet their records management goals and requirements. NARA also provides policies and guidance for planning and evaluating Investments in electronic records management.

- The Privacy Act of 1974 (5 U.S.C. § 552a), which is an omnibus "code of fair information practices" that attempts to regulate the collection, maintenance, use, and dissemination of personal information by Federal executive branch Agencies.
- NIST Special Publication 800-146 concepts and definitions regarding cloud computing.
- Recent OMB IT policies and guidance, including:
- Federal Information Technology Shared Services Strategy
- The Common Approach to Federal Enterprise Architecture
- The Federal Enterprise Architecture, Version 2.0
- Contracting Guidance to Support Modular Development
- The Federal Cloud Computing Strategy
- Digital Government Strategy: Building a 21st Century Platform to Better Serve the American People
- Security Authorization of Information Systems in Cloud Computing Environments (FedRAMP)
- National Strategy for Information Sharing and Safeguarding
- OMB memo M-11-29 – Chief Information Officer Authorities
- OMB memo M-13-08 – Improving Financial Systems Through Shared Services
- OMB memo M-13-09 – Fiscal Year 2013 PortfolioStat Guidance: Strengthening Federal IT Portfolio Management
- OMB memo M-13-13 – Open Data Policy-Managing Information as an Asset
- OMB memo M-13-14 – Fiscal Year 2016 Budget Guidance
- OMB memo M-14-03 – Enhancing the Security of Federal Information and Information Systems
- OMB memo M-14-08 – Fiscal Year 2015 PortfolioStat
- OMB memo M-15-14 – Management and Oversight of Federal Information Technology
- OMB memo M-16-11 – Improving Administrative Functions Through Shared Services
- Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance
- Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management
- Executive Order 13642, Making Open and Machine Readable the New Default for Government Information, May 9, 2013
- Executive Order 13587, Structural Reforms to Improve the Security of Classified Networks and the Responsible Sharing and Safeguarding of Classified Information
- Federal Acquisition Regulation, including subchapter B, parts 5 through 12 and part 23
- Federal Management Regulation, including subchapters B and C
- Energy Independence and Security Act of 2007 (P.L. 110-140), including sections 431 through 435 and 523 through 525
- Energy and Policy Act of 2005 (P.L. 109–58), including sections 103, 104, 109, and 203

APPENDIX B. CODING INSTRUCTIONS FOR SHARED SERVICES INVESTMENTS

For Agencies' shared services Investments which are not included in the two tables below, these should be coded "48" for the "Shared Services Category" field in the IT Portfolio Summary.

E-Gov and LoB Initiative Investments (Shared Services Category Code "24")				
E-Gov or LoB Initiative	**Acronym**	**Managing Partner Agency**	**Includes**	**Shared Services Identifier**
Benefits.Gov		Labor		0020
Budget Formulation and Execution LoB	BFELoB	Education		3200
Disaster Assistance Improvement Plan		DHS		4100
E-Rulemaking		EPA		0060
Federal Health Architecture LoB	FHALoB	HHS		1400
Financial Management LoB	FMLoB	Treasury	Former GMLoB	1100
Geospatial LoB	GeoLoB	Interior		3100
Grants.Gov		HHS		0160
Human Resources LoB	HRLoB	OPM		1200
Integrated Award Environment	IAE	GSA	Former IAE-Loans & Grants	0230
Performance Management LoB	PMLoB	GSA		0900
Federal PKI Bridge	FPKI	GSA		0090
Recreation.Gov		USDA		0010
Security, Suitability, and Credentialing LoB	SSCLoB	OPM	New UII ending assigned for FY17 process.	1250
USAJOBS	USAJOBS	OPM	Former RecruitOnestop	1218
USA Services		GSA		0040

OMB M-16-11 defined shared service providers as providers designated by Treasury FIT or OPM HRLOB previously and USSM going forward. The below table reflects current USSM designated shared services.

A Partner agency should list its Investment as Type 04 Funding Transfer and report funding in the Agency Funding fields. Managing Partner agency should report their Investment as a Type 01 Major Investment and reports funding from customers in the Agency Contribution fields.

USSM Designated Shared Services Investments/Providers (Shared Services Category Code "36")					
Shared Service Investment	**USSM Designated Shared Service Provider**		**Acronym**	**Includes**	**Shared Services Identifier**
Agency Accounting Services (AAS)	Treasury	Administrative Resource Center	ARC	Financial Management	1101
HR LoB - HR Connect	Treasury	Treasury Shared Service Center	TSSC	Core HR	1201
Defense Civilian Personnel Data System	DoD	Defense Civilian Personnel Advisory Service	DCPAS	Core HR	1202
Defense Civilian Pay System	DoD	Defense Finance and Accounting Service	DFAS	Payroll	1203
IBC FMLoB Shared Service Provider	DOI	Interior Business Center	IBC	Financial Management	1102
IBC Shared Service Center (HRLoB)	DOI	Interior Business Center	IBC	Core HR, Payroll	1204
DOTXX129: Delphi Version Two	DOT	Enterprise Services Center	ESC	Financial Management	1103
HHS Integrated Personnel Management Service	HHS	Program Support Center	PSC	Core HR	1205
Human Capital Information Technology Services	GSA	HRLoB Shared Service Center	HRLoB SSC	Core HR	1206
PAR (e-Payroll)	GSA	HRLoB Shared Service Center	HRLoB SSC	Payroll	1207
OCFO FSSP	USDA	National Finance Center	NFC	Financial Management	1104
OCFO-NFC Shared Services	USDA	National Finance Center	NFC	Core HR, Payroll	1208

APPENDIX C. DEFINITIONS

The list of common IT Budget – Capital Planning definitions is provided below:

Term	Source Document	Definition
Adequate Incremental Development	OMB Memo M-15-14	For development of software or services, planned and actual delivery of new or modified technical functionality to users occurs at least every six (6) months.
Agency Chief Information Officer (CIO), as defined in statute	OMB Memo M-15-14	The CIO at the headquarters level of a department or establishment of the government as defined in Section 20 of OMB Circular A-11 (contrasts with "Bureau CIO").
Agile Development	Agile Manifesto	Software development that emphasizes interacting with people over rigorous process, working software instead of documentation, a focus on customer needs and learning from the experience of development.
Alternatives Analysis	Capital Programming Guide	This term refers to a method for addressing the various options for meeting the performance objectives of an Investment, including the return on Investment of the various options. The analysis is performed prior to the initial decision to implement a solution and updated periodically, as appropriate, to capture changes in the context for an Investment decision. Alternatives Analysis should be performed for Investments with projects in the planning or DME stages, whereas strictly operational Investments should instead perform operational analyses until such time as a decision is made to re-evaluate the Investment or to resume development, modernization or enhancement. This terms refers to best practices outlined in the Capital Programming Guide under "I.4-Alternatives to Capital Assets" and "Evaluate Asset Options"
Application Programming Interface (API)	IT Budget - Capital Planning Guidance	API refers to a protocol intended to be used as an interface by software components to communicate with each other. An API is a library that may include specification for routines, data structures, object classes, and variables.
Apportionment	31 U.S.C. § 1513(b); Executive Order 11541; OMB Circular A-11 Section 120	This term refers to an OMB-approved plan to use budgetary resources (31 U.S.C. § 1513(b); Executive Order 11541). It typically limits the obligations you may incur for specified time periods, programs, activities, projects, objects, or any combination thereof. It may also place limitations on the use of other resources, such as FTEs or property. An apportionment is legally binding, and obligations and expenditures (disbursements) that exceed an apportionment are a

Term	Source Document	Definition
		violation of, and are subject to reporting under, the Antideficiency Act (31 U.S.C. § 1517(a)(1), (b)).
Baseline	OMB Memo M-10-27	This term refers to the approved work breakdown structure, costs, schedule, and performance goals for a given Investment. For additional information on baselines and baseline management, see OMB Memo M-10-27, "Information Technology Investment Baseline Management Policy".
Benefit-Cost Analysis (BCA)	OMB Circular A-94; Capital Planning Guide	Benefit-Cost Analysis refers to the recommended technique to use in a formal economic analysis of government programs or projects. Guidance for Benefit-Cost Analysis is described in OMB Circular A-94.
Budget Authority	OMB Circular A-11 Section 20.4	Authority provided by federal law to enter into financial obligations that will result in immediate or future outlays involving Federal Government funds. The basic forms of budget authority include (1) appropriations, (2) borrowing authority, (3) contract authority, and (4) authority to obligate and expend offsetting receipts and collections.
Budgetary Resource	OMB Circular A-11 Section 20.4	This term refers to an amount available to enter into new obligations and to liquidate them. Budgetary resources are made up of new budget authority (including direct spending authority provided in existing statute and obligation limitations) and unobligated balances of budget authority provided in previous years. Direct spending authorities include appropriations and collections of fees authorized under 42 U.S.C. § 14953.
Bureau CIO	OMB Memo M-15-14	Official with the title or role of CIO within a principal subordinate organizational unit of the Agency, as defined in Section 20 of OMB Circular A-11, or any component organization of the Agency (contrasts with "Agency CIO").
Business Reference Model (BRM)	FEA Consolidated Reference Model Document, Version 2.3	This term refers to one of six (6) reference models of the Federal Enterprise Architecture. The BRM is a classification taxonomy used to describe mission sectors, business functions, and services that are performed within and between Federal Agencies and with external partners. It provides a functional view of Federal Government organizations and their LoBs, including mission and support business services opportunities for collaboration, shared services, and solution reuse can be identified by mapping IT Investments to the BRM.
Capital Assets	Capital Programming Guide, Appendix 1	Capital Assets refer to land, structures, equipment, intellectual property (e.g., software), and IT (including the output of IT service contracts) that has been acquired by the Federal Government and

Term	Source Document	Definition
		have an estimated useful life of two years or more. See Appendix One (1) of the Capital Programming Guide for a more complete definition of capital assets.
Capital Investment (or Investment)	IT Budget - Capital Planning Guidance	This term refers to the planning, development, and acquisition of a capital asset and the management and operation of that asset through its usable life after the initial acquisition. IT capital Investments may consist of one or more assets which provide functionality in an operational (production) environment.
Capital Planning and Investment Control (CPIC)	40 U.S.C. § 11302	This term refers to a decision-making process that ensures IT Investments integrate strategic planning, budgeting, procurement, and management of IT in support of Agency missions and business needs. The CPIC process has three distinct phases: Select, Control, and Evaluate. See 40 U.S.C. § 11302 for statutory requirements and Clinger-Cohen Act of 1996.
Capital Programming	IT Budget - Capital Planning Guidance	This term refers to an integrated process within an Agency that focuses on the planning, budgeting, procurement, and management of the Agency's portfolio of capital Investments to achieve the Agency's strategic goals and objectives with the lowest overall cost and least risk.
Cloud Computing	NIST Special Publication 800-145 -The NIST Definition of Cloud Computing	Cloud computing is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. Cloud computing promotes availability and is composed of five essential characteristics (On-demand self-service, Broad network access, Resource pooling, Rapid elasticity, Measured Service); three service models (Cloud Software as a Service (SaaS), Cloud Platform as a Service (PaaS), Cloud Infrastructure as a Service (IaaS)); and, four deployment models (Private cloud, Community cloud, Public cloud, Hybrid cloud). Key enabling technologies include: (1) fast wide-area networks, (2) powerful, inexpensive server computers, and (3) high-performance virtualization for commodity hardware (see NIST Special Publication 800-145 - The NIST Definition of Cloud Computing for official government definition).
Cloud Computing	IT Budget - Capital Planning Guidance	This term refers to implementation and operational costs directly attributable to the cloud computing

Term	Source Document	Definition
Spending		systems within the Investment for the specified year.
Cloud First Policy	OMB Memo M-13-09	This term refers to OMB's Cloud First policy, launched in December 2010, which is intended to accelerate the pace at which the government realizes the value of cloud computing by requiring Agencies to evaluate safe, secure cloud computing options before making any new Investments. Per the Federal Cloud Computing Strategy, Agencies should evaluate their technology sourcing plans to include consideration and application of cloud computing solutions as part of the budget process. Agencies should seek to optimize the use of cloud technologies in their IT portfolios to take full advantage of the benefits of cloud computing in order to maximize capacity utilization, improve IT flexibility and responsiveness, and minimize costs. When evaluating options for new IT deployments, OMB requires that Agencies default to cloud-based solutions whenever a secure, reliable, cost-effective cloud option exists. Additionally, Agencies shall continually evaluate cloud computing solutions across their IT portfolios, regardless of Investment type or life cycle stage.
Collaboration Tools	FEA Consolidated Reference Model Document, Version 2.3	Collaboration tools include all software and services used to support digital collaboration (e.g., wiki, social media services, document/file sharing, web conferencing solutions, and text messaging, desktop video conferencing solutions). Capabilities that allow for the concurrent, simultaneous communication and sharing of content, schedules, messages and ideas within an organization: Threaded Discussions support the running log of remarks and opinions about a given topic or subject; Document Library supports the grouping and archiving of files and records on a server; Shared Calendaring allows an entire team as well as individuals to view, add and modify each other's schedules, meetings and activities; Task Management supports a specific undertaking or function assigned to an employee. • Costs include all IT related to the collaboration solution including software licenses, server, communications, and specialized hardware equipment, data center allocation / charges, storage, backup solution, and contractors. • Does NOT include IT costs related to e-mail, office productivity software (e.g., office software suites, groupware, e-mail clients), or services for which the Agency does not pay (e.g., OMB MAX).

Term	Source Document	Definition
		• Does NOT include IT costs associated with conference-room audio or video teleconferencing as these are included under telecommunications.
Commodity IT	OMB Memo M-11-29; OMB Memo M-12 -10; Federal IT Shared Services Strategy	This term refers to a category of back-office IT services whose functionality applies to most, if not all, Agencies (e.g., infrastructure and asset management, e-mail, hardware and software acquisition, and help desks). This also relates to OMB's PortfolioStat initiative and a CIO-lead business approach to the delivery of IT infrastructure, enterprise IT, and administrative/business systems that emphasizes pooling Agencies' purchasing power across their entire organization through shared services as a provider or consumer, instead of standing up separate independent services to eliminate duplication, rationalize the Agency's IT Investments, and drive down costs. There are three categories of Commodity IT: • Enterprise IT – Items that pertain to this are: E-mail; Collaboration; Identity and Access Management; IT Security (Not Identity and Access Mgmt.); and Web Hosting, Infrastructure, and Content. • IT Infrastructure - Items that pertain to this are: Desktop Systems; Mobile Devices; Mainframes and Servers; and Telecommunications. • Business Systems - Items that pertain to this are: Financial Management; Human Resources Management; Grants-Related Federal Financial Assistance; Grants-Related Transfer to State and Local Governments.
Community Cloud	NIST Special Publication 800-145 -The NIST Definition of Cloud Computing	This term refers to cloud computing technology in which the cloud infrastructure is provisioned for exclusive use by a specific community of consumers from organizations that have shared concerns (e.g., mission, security requirements, policy, and compliance considerations). It may be owned, managed, and operated by one or more of the organizations in the community, a third party, or some combination of them, and it may exist on or off premises (see NIST Special Publication 800-145 -The NIST Definition of Cloud Computing.
Contributions (or Expected Contributions)	IT Budget - Capital Planning Guidance	This term refers to both monetary contributions, or a dollar-equivalent of In-kind services and fees for services provided by a partner Agencies/sub-Agencies to managing partners or shared service providers. Contributions can collected from partner Agencies or partner sub-Agencies by either Multi-

Term	Source Document	Definition
		Agency collaborations or Intra-Agency shared services. • Contributions represents the sum portion for all funds collected by the managing partner of the shared service. • Fee-for-service (a type of contribution) are typically use the Economy Act, 31 U.S.C. § 1535 as the authorization for the transfer of funds. Other monetary contributions or in-kind equivalents contributions typically use the Clinger-Cohen Act of 1996, 40 U.S.C. § 1424.
Cost	Capital Planning Guide	Defined in Statement of Federal Financial Accounting Concepts (SFFAC) No. 1, Objectives of Federal Financial Reporting, as the monetary value of resources used. Defined more specifically in Statement of Federal Financial Accounting Standards (SFFAS) No. 4, Managerial Cost Accounting Concepts and Standards for the Federal Government, as the monetary value of resources used or sacrificed or liabilities incurred to achieve an objective, such as to acquire or produce a good or to perform an activity or service. Depending on the nature of the transaction, cost may be charged to operations immediately (i.e., recognized as an expense of the period) or to an asset account for recognition as an expense of subsequent periods. In most contexts within SFFAS No. 7, Accounting for Revenue and Other Financing Sources, "cost" is used synonymously with expense.
Cost Avoidance	OMB Circular A-131	An action taken in the immediate time frame that will decrease costs in the future. For example, an engineering improvement that increases the mean time between failures and thereby decreases operation and maintenance costs is a cost avoidance action (as defined in OMB Circular A-131).
Cost Savings	OMB Circular A-131	Cost Saving refers to the reduction in actual expenditures to achieve a specific objective (as defined in OMB Circular A-131).
Critical Path	OMB E-Gov	An activity in which a delay in completion causes a corresponding delay in the ultimate completion of the project by at least an equal amount of time.
Data Center	OMB Memo M-16-19	"For the purposes of this memorandum, rooms with at least one server, providing services (whether in a production, test, staging, development, or any other environment), are considered data centers. However, rooms containing only print servers, routing equipment, switches, security devices (such as firewalls), or other telecommunications components shall not be considered data centers."

Term	Source Document	Definition
Data Center and Cloud Standard Investment	IT Budget - Capital Planning Guidance	Tiered data center facilities that house and protect critical IT equipment including the space, power, environment controls, racks, cabling and "smart hand" support. Compute capabilities in all industrial capacity form factors and specifically including high-performance computing capabilities. Cloud capabilities including PaaS and IaaS. Online and network attached storage.
Dataset	OMB Memo M-13-13	This term refers to a collection of structured data presented in tabular or non-tabular form (per OMB M-13-13 Open Data Policy-Managing Information as an Asset).
Defense Acquisition Workforce Improvement Act (DAWIA) of 1990 (P.L. 101-510)	IT Budget - Capital Planning Guidance	DAWIA of 1990 (P.L. 101-510) refers to a congressional act that established for the Department of Defense an Acquisition Corps to professionalize the acquisition workforce in the DoD through education, training, and work experience.
Dependency	IT Budget - Capital Planning Guidance	Dependency refers to the identification of relationships between projects and operational assets within an Investment as well as the identification of relationships between Investments. Action taken by one affects the other. Identification of dependencies is critical to the management of project, program, and portfolio risk.
Desktop and Laptop systems	OMB Circular A-11 (2010)	Desktop and Laptop systems are defined as “End User Systems” that can consist of any of the following: desktops and laptops, printers (both individual and shared), print servers; and scanners. This category includes the local hardware and software (PC operating systems, office automation suites) cost associated with the device as well as any related support costs (excluding help desk). • Desktops and laptops • Peripherals (scanners, fingerprint scanners, etc.) • Software/Desktop Applications (PC operating systems, office automation suites) • Local printers, shared printers, fax machines or the cost of supplies (e.g., toner and paper)
Development, Modernization, and Enhancement (DME)	IT Budget - Capital Planning Guidance	DME refers to projects and activities leading to new IT assets/systems, as well as projects and activities that change or modify existing IT assets to substantively improve capability or performance, implement legislative or regulatory requirements, or meet an Agency leadership request. DME activity may occur at any time during a program’s life cycle. As part of DME, capital costs can include hardware, software development and acquisition

Term	Source Document	Definition
		costs, commercial off-the-shelf acquisition costs, government labor costs, and contracted labor costs for planning, development, acquisition, system integration, and direct project management and overhead support.
Disposition Cost	IT Budget - Capital Planning Guidance	Disposition Cost refers to the cost of retiring a capital asset once its useful life is completed or a replacement asset has superseded it; disposition costs may be included in operational activities near the end of the useful life of an asset.
Earned Value Management (EVM)	American National Standards Institute (ANSI)/Electronic Industries Alliance (EIA) Standard–748–1998, Earned Value Management Systems. Additional information on EVMS is available at www.acq.osd.mil/evm.	EVM refers to an integrated management system that coordinates the work scope, schedule, and cost goals of a program or contract, and objectively measures progress toward these goals. EVM is a tool used by program managers to: (1) quantify and measure program/contract performance, (2) provide an early warning system for deviation from a baseline, (3) mitigate risks associated with cost and schedule overruns, and (4) provide a means to forecast final cost and schedule outcomes. The qualities and operating characteristics of earned value management systems (EVMS) are described in American National Standards Institute (ANSI)/Electronic Industries Alliance (EIA) Standard–748–1998, Earned Value Management Systems. Additional information on EVMS is available at www.acq.osd.mil/evm.
E-mail	FEA Consolidated Reference Model Document, Version 2.3	Electronic mail is the exchange of computer generated and stored messages by telecommunication. An e-mail can be created manually via messaging applications or dynamically/ programmatically such as automated response systems. For Agencies that have outsourced e-mail services to another Agency or vendor, this is the obligation for e-mail related costs. • Costs should include the full cost of the e-mail solution including software licenses, server and communications hardware, equipment, data center allocation/charges, storage, backup solution, and contractors. • Does not include the cost of the end user client computing device/software or the telecommunications cost for the LAN/WAN/wireless costs.
Enterprise	OMB Circular A-130	This term refers to the strategic, business, and

Term	Source Document	Definition
Architecture (EA)		technology and documentation of the current and desired relationships among business and management processes and IT of an organization. An EA includes the rules and standards and systems life cycle information to optimize and maintain the environment which the Agency wishes to create and maintain through its IT portfolio. An EA must provide a strategy that enables the Agency to support its current state and provides a roadmap for transition to its target environment. An EA defines principles and goals and sets a direction on such issues as the promotion of interoperability, open systems, publics access, end-user satisfaction, and IT security.
Enterprise Roadmap	OMB Memo M-13-09	This term refers to a document that describes the business and technology plan for the entire organization using EA methods. The Roadmap provides current views, future views, and transition plans at an appropriate level of detail for all IT Investments, services, systems, and programs. The Enterprise Roadmap also contains an IT asset inventory using the FEA Reference Models and other attachments or appendices for CPIC, EA, shared service, and other planning products requested by OMB that provide additional information regarding Roadmap plans.
Epic	Forthcoming Agile Development GuidanceAgile Methodology	An Epic is the total number of sprints needed to complete a release as determined by Product Owner or Manager. Example: Release 1: Epic 1: Sprint 1 User Stories 1-4 Sprint 2 User Stories 5-8
End User Standard Investment	IT Budget - Capital Planning Guidance	End User includes: Client compute physical desktops, portable laptops, thin client machines, peripherals (including monitors, pointer devices and attached personal printers) used by individuals to perform work Client compute tablets, smart phones (iOS, Android, Windows Mobile) and apps used by individuals to perform work. Client related software used to author, create, collaborate and share documents and other content. Examples include email, communications, messaging, word processing, spreadsheets, presentations, desktop publishing, graphics and

Term	Source Document	Definition
		others. Audio and video conferencing equipment typically used in conference rooms and dedicated telepresence rooms to enable workforce communications. Centralized Tiered help desk resources that handle user requests, answer questions and resolve issues. Local support resources that provide on-site support for moves, adds, changes and hands on issue resolution.
Evaluation (by Agency CIO)	IT Budget - Capital Planning Guidance	This term refers to the CIO's best judgment of the current level of risk for an Investment in terms of its ability to accomplish its goals (40 U.S.C. § 11315(c)(2)). The evaluation should be informed by the following factors, including, but not limited to: risk management, requirements management, contractor oversight, historical performance, human capital and other factors that the CIO deems important to the forecasting future success. Each evaluation should include narrative to address/explain the rating. This is particularly important whenever the rating has changed since the last evaluation.
Federal Acquisition Certification for Program and Project Managers (FAC-P/PM)	FAC-P/PM	Federal Acquisition Certification for Program and Project Managers (FAC-P/PM) refers to a certification program that was established to clearly identify general training and experience requirements for program and project managers (PMs) in civilian Agencies. The FAC-P/PM focuses on essential competencies needed for program managers and PMs. The certification program does not include functional or technical competencies, such as those for IT or Agency-specific competencies. Defense Agencies have a similar certification program under DAWIA. Agencies were required to be compliant with FAC-P/PM starting in FY 2008. Available levels are Entry/Apprentice, Mid/Journeyman, and Expert/Advanced for FAC-P/PM and 1, 2, and 3 for DAWIA.
Federal Enterprise Architecture (FEA)	IT Budget - Capital Planning Guidance	This term refers to a business-based documentation and analysis framework for Agency and governmentwide improvement. The FEA provides standardized methods to describe the relationship between an Agency's strategic goals, business functions, and enabling technologies at various levels of scope and complexity. The FEA is comprised of documentation in six domain areas

Term	Source Document	Definition
		(strategic goals, business services, data and information, systems and applications, infrastructure, and security) that includes required and elective artifacts. More information about the FEA is available in The Common Approach to Federal Enterprise Architecture (OMB, May 2, 2012) and at FEA Reference Model document library.
FEA Mapping Codes	FEA Consolidated Reference Model Document, Version 2.3	This term refers to the unique identifiers for the information contained in the FEA Reference Models. The mapping codes are used to align information reported by Agencies back to a common FEA taxonomy. Use of the Reference Models provides a common vocabulary and framework to relate information captured across the Federal Government. The first three-digit code indicates the primary service area served by this Investment (the three-digit BRM service code). The second through fifth three-digit codes indicate the secondary services associated with this Investment. Guidance on the codes for these mappings can be found at FEA Reference Model document library.
Federal IT Dashboard (ITDB)	www.itdashboard.gov	This term refers to a website (www.itdashboard.gov) that enables Federal Agencies, industry, the general public, and other stakeholders to view details regarding the performance of Federal IT Investments. The ITDB is used by the Administration and Congress to inform budget and policy decisions.
Financial Management Systems	OMB Circular A-123, Appendix D (formerly OMB Circular A-127).	This term refers to systems necessary to support financial management, including automated and manual processes, procedures, controls, data, hardware, software, and support personnel dedicated to the operation and maintenance of system functions. The following are examples of financial management systems: core financial systems, procurement systems, loan systems, grants systems, payroll systems, budget formulation systems, billing systems, and travel systems (see OMB Circular A-127 for additional information and guidance).
Full Funding	OMB Circular A-11, Section 31.5	Full Funding means appropriations are enacted sufficient to complete a useful segment of a capital project or Investment (or the entire project or Investment, if it is not divisible into useful segments) before any obligations for the useful segment (or project or Investment) may be incurred. Incrementally funding the planning and acquisition of capital assets (or useful segments), without

Term	Source Document	Definition
		certainty if or when future funding will be available, can result in poor planning, inadequate justification of asset acquisition, higher acquisition costs, cancellation of projects, the loss of sunk costs, or inadequate funding to maintain and operate the assets. Requests for procurement programs must provide for full funding of the entire cost (see Section 31.5 of OMB Circular A-11 and the Capital Programming Guide).
Functional/Business Sponsor	IT Budget - Capital Planning Guidance	This term refers to the Agency official who is responsible for the program or function supported or implemented by the Investment (44 U.S.C. § 3501 (a) (4)). The sponsor is responsible for expressing the value of, ensuring successful implementation of, and providing accurate and timely data for the IT Investment to the Agency CIO and OMB. The designated person may (or may not) be the same as the "Business Process owner/Subject Matter Expert" serving on the IPT. Each major and non-major IT Investment must include the name of the functional/business sponsor as well as the individual's title.
Funding	Capital Planning Guide	There are two types of funding for projects: (1) Full funding means that appropriations are enacted that are sufficient in total to complete a useful segment of a capital project (Investment) before any obligations may be incurred for that segment. When capital projects (Investments) or useful segments are incrementally funded, without certainty if or when future funding will be available, it can result in poor planning, acquisition of assets not fully justified, higher acquisition costs, projects (Investments) delays, cancellation of major projects (Investments), the loss of sunk costs, or inadequate funding to maintain and operate the assets. Budget requests for full acquisition propose for full funding. (2) Incremental (annual) funding means that appropriations are enacted that only fund an annual or other part of a useful segment of a capital project (Investment). OMB or the Congress may change the Agency's request for full finding to incremental funding in order to accommodate more projects in a year than would be allowed with full funding.
Funding Source	IT Budget - Capital Planning Guidance	Funding Source refers to the direct appropriation or other budgetary resources an Agency receives for an IT Investment. When "original paying accounts" within Agencies are transferring resources to a

Term	Source Document	Definition
		different Agency account that ultimately supports the IT Investment (for example, when bureau accounts are paying into a central CIO office account or a working capital fund), the funding source provided in Agency IT Investment Portfolio should be the account that ultimately pays contracts and other costs for the Investment directly (not the original account(s) for the funds); the point of execution. Note: For Agencies on the ITDB, funding sources are planned as the primary drivers in the algorithm to display "spending by bureau," rather than using the bureau code associated with Investments. It is critical that valid OMB Budget Account (funding source) codes be provided for each funding source in Agency submissions.
Funding Transfer Investment	IT Budget - Capital Planning Guidance	This term refers to the portion of funding a partner Agency provides funding contributions to another IT Investment. The description of the IT Investment should indicate the UII of the managing partner Investment.
Government Information	OMB Circular A-130	Government Information refers to information created, collected, processed, disseminated, or disposed of by or for the Federal Government .
Gross Savings	IDC	The amount of cost savings (per Circular A-131) on an annual basis without taking into account the one-time costs of implementing the cost savings or cost avoidance strategy (as defined in OMB Circular A-131).
Help desk (End User Support)	FEA Business Reference Model v 3.0	Help Desk Services involves the operation of a service center to respond to government and contract employees' end user device and software support needs (includes, but is not limited to, costs related to employees, contractors, and ticket management software).
Hybrid Cloud	NIST Special Publication 800-145 -The NIST Definition of Cloud Computing	Cloud computing technology in which the cloud infrastructure is a combination of two or more distinct cloud infrastructures (private, community, or public) that remain unique entities, but are bound together by standardized or proprietary technology that enables data and application portability (e.g., cloud bursting for load balancing between clouds) (see NIST Special Publication 800-145 -The NIST Definition of Cloud Computing for official government definition).
Identity and Access Management	OMB Circular A-11 (2010)	Includes funding of activities required to implement HSPD-12 and the Federal Identity, Credentialing and Access Management (FICAM) roadmap segment architecture requirements as directed by OMB. This includes but is not limited to HSPD-12

Term	Source Document	Definition
		PIV Card deployment and operations, logical PIV Card access implementations, to include network and application access, identity management systems, physical access control systems, etc. • Costs include all IT related to identity and access management including cost of PIV cards, certificates, software licenses, server and communications hardware, equipment, data center allocation/charges, storage, backup solution and contractors.
Information Resources Management (IRM) Strategic Plan	44 U.S.C. § 3506(b)(2); OMB Circular A-130	IRM Strategic Plan refers to a document that addresses all information resources management of an Agency. Agencies must develop and maintain their IRM strategic plans as required by 44 U.S.C. § 3506(b)(2) and OMB Circular A-130. IRM strategic plans should support the Agency's strategic plan that is required in OMB Circular A-11; provide a description of how information resources management activities help accomplish the Agency's missions delivery area and program decisions; and ensure IRM decisions are integrated with management support areas, including organizational planning, budget, procurement, financial management, and human resources management.
Information Security	OMB Memo M-04-25	This term refers to all functions pertaining to the protection of federal information and information systems from unauthorized access, use, disclosure, disruptions, modification, or destruction, as well as the creation and implementation of security policies, procedures and controls. It includes the development, implementation, and maintenance of security policies, procedures, and controls across the entire information life cycle. These functions should include implementation and activities associated with NIST 800-37, Security Awareness training (but not the technical infrastructure required for the delivery of training), FISMA compliance reporting, development of a security policy, and security audits and testing. • IT security should include systems that oversee Agency IT needs. • Do Not Include IT costs related to Identity or Access Management systems/solutions. • Do Not Include physical protection of an organization (e.g., guards, cameras, and facility protection).
Information System	44 U.S.C. § 3502; OMB Circular A-130	Information System refers a discrete set of information resources organized for the collection,

Term	Source Document	Definition
		processing, maintenance, use, sharing, transmission, or dissemination of information, in accordance with defined procedures, whether automated or manual (see Circular A-130 and 44 U.S.C. § 3502).
Information Technology (IT)	OMB Memo M-15-14	IT is defined as: A. Any services or equipment, or interconnected system(s) or subsystem(s) of equipment, that are used in the automatic acquisition, storage, analysis, evaluation, manipulation, management, movement, control, display, switching, interchange, transmission, or reception of data or information by the Agency; where B. such services or equipment are 'used by an Agency' if used by the Agency directly or if used by a contractor under a contract with the Agency that requires either use of the services or equipment, or requires either use of the services or equipment to a significant extent in the performance of a service or the furnishing of a product. C. IT includes computers, ancillary equipment (including imaging peripherals, input, output, and storage devices necessary for security and surveillance), peripheral equipment designed to be controlled by the central processing unit of a computer, software, firmware and similar procedures, services (including provisioned services such as cloud computing and support services that support any point of the life cycle of the equipment or service), and related resources. D. IT Includes High Performance Computing (HPC) capabilities including capabilities that are not commodity in nature. E. IT does not include any equipment that is acquired by a contractor incidental to a contract that does not require use of the equipment.
IT Investment	OMB Circular A-11 Section 55	This term refers to the expenditure of IT resources to address mission delivery and management support. An IT Investment may include a project or projects for the development, modernization, enhancement, or maintenance of a single IT asset or group of IT assets with related functionality, and the subsequent operation of those assets in a production environment. All IT Investments should have a defined life cycle with start and end dates, with the end date representing the end of the currently estimated useful life of the Investment, consistent with the Investment's most current alternatives analysis if applicable. When the asset(s) is essentially replaced by a new system or technology, the replacement should be

Term	Source Document	Definition
		reported as a new, distinct Investment, with its own defined life cycle information.
IT Program Managers and IT Project Managers	IT Budget - Capital Planning Guidance	IT Program Managers and IT Project Managers refers to the IPT members responsible for IT Investments and lead the required IPT for the Investment. In some cases, IT program managers and PMs can hold positions in other classification series; however they must still meet the requisite Federal certification and/or IT program management experience requirements. Further definitions are available in the Office of Personnel Management's Job Family Standard for Administrative Work in the Information Technology Group (series 2200 in the Federal Classification and Job Grading Systems).
IT Resources	OMB Memo M-15-14	IT Resources is defined as: A. All Agency budgetary resources, personnel, equipment, facilities, or services that are primarily used in the management, operation, acquisition, disposition, and transformation, or other activity related to the life cycle of IT; B. acquisitions or Inter-Agency agreements that include IT and the services or equipment provided by such acquisitions or Inter-Agency agreements; but C. does not include grants to third parties which establish or support IT not operated directly by the Federal Government.
IT Systems for National Security	40 U.S.C. § 5141 & 5142	Any telecommunications or information system operated by the United States Government, the function, operation, or use of which: 1. involves intelligence activities; 2. involves cryptologic activities related to national security; 3. involves command and control of military forces; 4. involves equipment that is an integral part of a weapon or weapons system; or 5. subject to subsection (b), is critical to the direct fulfillment of military or intelligence missions. (b) LIMITATION. Subsection (a)(5) does not include a system that is to be used for routine administrative and business applications (including payroll, finance, logistics, and personnel management applications). National Security Systems are required to report as a part of the Capital Planning process.

Term	Source Document	Definition
Information Security Continuous Monitoring (ISCM)	FISMA	A system which provides ongoing observation, assessment, analysis, and diagnosis of an organization's cybersecurity: posture, hygiene, and operational readiness. For more information, please visit https://www.performance.gov/node/3401/view?view=public
Infrastructure as a Service (IaaS) Cloud Computing	NIST Special Publication 800-145 -The NIST Definition of Cloud Computing	The capability provided to the consumer to provision processing, storage, networks, and other fundamental computing resources where the consumer is able to deploy and run arbitrary software, which can include operating systems and applications. The consumer does not manage or control the underlying cloud infrastructure but has control over operating systems, storage, and deployed applications; and possibly limited control of select networking components (e.g., host firewalls) (see NIST Special Publication 800-145 - The NIST Definition of Cloud Computing for official government definition).
Integrated Program/ Project Team (IPT)	Capital Planning Guide	A multi-disciplinary team led by a program/project manager responsible and accountable for planning, budgeting, procurement and life-cycle management of the Investment to achieve its cost, schedule, and performance goals. Team skills include: budgetary, financial, capital planning, procurement, user, program, architecture, earned value management, security, and other staff as appropriate. In order for OMB to approve the Investment budget, an IPT must include at a minimum: a qualified, fully dedicated IT program manager; a contracting specialist, if applicable; an IT specialist; an IT security specialist; and a business process owner or subject matter expert (SME). Other members of the IPT might include enterprise architects; IT specialists with specific expertise in data, systems, or networks; capital planners; or performance specialists. Key members of the IPT should be co-located during the most critical junctures of the program, to the maximum extent possible. Agencies should establish IPT members' individual performance goals to hold team members accountable for both individual functional goals and the overall success of the program. The Investment IPT should be defined in a program or an IPT charter.
Inter-Agency Acquisition	31 U.S.C. § 1535	Inter-Agency Acquisition refers to the use of the Federal Supply Schedules; a Multi-Agency contract (i.e., a task order or delivery order contract

Term	Source Document	Definition
		established by one Agency for use by multiple government Agencies to obtain supplies and services, consistent with the Economy Act, 31 U.S.C. § 1535) or a governmentwide acquisition contract (i.e., a task order or delivery order contract for IT established by one Agency for Governmentwide use operated by an executive agent, as designated by OMB pursuant to Section 11302(3) of the Clinger-Cohen Act of 1996).
IT Asset	Capital Programming Guide	This term refers to anything (tangible or intangible) that has value to an organization, including, but not limited to: a computing device, IT system, IT network, IT circuit, software (both an installed instance and a physical instance), virtual computing platform (common in cloud and virtualized computing), and related hardware (e.g., locks, cabinets, keyboards) as well as people and intellectual property (including software). Assets are the lowest level at which IT is planned, acquired, implemented, and operated.
IT Management Investment	IT Budget - Capital Planning Guidance	A standard Investment category to capture all costs associated with IT Management and Strategic Planning (including CIO and other senior leadership FTE costs), Enterprise Architecture, Capital Planning, Project Management Offices, IT Budget/Finance, and IT Vendor Management, 508 Compliance, general IT policy and reporting, and IT Governance. This may include Investments mapped to FEA BRM "Executive Direction and Management."
IT Migration Investment	IT Budget - Capital Planning Guidance	This term refers to the migration costs associated with systems in a Shared Service partner Agency that are not captured by the managing partner when the partner Agency is migrating to the shared system. The description of the IT Investment should indicate the UII of the major IT Investment of the managing partner.
IT Security and Compliance Investment	IT Budget - Capital Planning Guidance	A standard Investment category to capture all costs associated with IT Security resources setting policy, establishing process and means, and measuring compliance and responding to security breaches. Additionally, the Investment captures costs associated with IT compliance such as establishing controls and measuring compliance to relevant legal and compliance requirements. The Investment also includes costs associated with privacy but does not include mission (non-IT) security and compliance.
IT Service	ISO 20000	A means of delivering IT, in combination with any inherent people or processes, of value to customers

Term	Source Document	Definition
		by facilitated outcomes customers want to achieve without the ownership of specific costs and risks. (See: ISO 20000)
Iteration / Sprint	Agile Methodology	A distinct sequence of activities with a baselined plan and valuation criteria resulting in a release.
Life Cycle Costs	Capital Programming Guide; OMB Circular A-131	Life Cycle Costs refers to all Investment costs (including government FTEs) from the commencement of the Investment through its estimated useful life (or the composite estimated useful life of the assets within the Investment), independent of the funding source (e.g., revolving fund, appropriated fund, working capital fund, trust fund). For more information about life cycle costs, see the Capital Programming Guide of OMB Circular A-11 and OMB Circular A-131.
Mainframes and Servers	OMB Circular A-11 (2010)	This term refers to a subset of the Mainframes and Servers Systems & Support apportionment category. The definition for this data center commodity IT area applies equally to any data processing environment (such as production, backup, DR/COOP, test, development, etc.) and typically includes: • Hardware (storage controllers, storage servers): Includes all dedicated storage hardware devices such as controllers, servers, disk arrays, tape libraries, and optical jukeboxes, as well as supplies (media) used to store data offline such as tapes. • Software: Includes software dedicated to managing the storage systems, including creation and setup, storage maintenance, reporting, security, monitoring, backup/restore, archival, replication, media handling and data migration/tiering. • Disaster recovery: Includes the hardware, software, facilities and contracts specifically dedicated to disaster recovery for storage management. • Outsourcing: Includes third party and outsource contracts, such as managed storage services and cloud-based storage. • Personnel: In-house costs for government personnel (salaries and benefits) and costs for contract personnel supporting operations/maintenance, engineering/technical services, planning and process management, services administration, management and administration allocated to storage systems.
Maintenance	Federal Accounting Standards Advisory Board Statement of Federal	Maintenance refers to the activity necessary to keep an asset functioning as designed during the O&M phase of an Investment. Maintenance activities may

Term	Source Document	Definition
	Financial Accounting Standards Number 10	also include, but are not limited to, operating system upgrades, technology refreshes, and security patch implementations. Some maintenance activities should be managed as projects and reported in Section B of Major IT Investment Update. As defined in the Federal Accounting Standards Advisory Board Statement of Federal Financial Accounting Standards Number 10, maintenance excludes activities aimed at expanding the capacity of an asset or otherwise upgrading it to serve needs different from or significantly greater than those originally intended.
Major IT Investment	OMB Memo M-15-14	An IT Investment in Part 1 and Part 2 of the IT Portfolio requiring special management attention because of its importance to the mission or function to the government; significant program or policy implications; high executive visibility; high development, operating, or maintenance costs; unusual funding mechanism; or definition as major by the Agency's CPIC process. Agencies should also include all "major automated information system" as defined in 10 U.S.C. § 2445 and all "major acquisitions" as defined in the OMB Circular A-11 Capital Programming Guide consisting of information resources. OMB may work with the Agency to declare IT Investments as major IT Investments. Agencies must consult with assigned OMB desk officers and Resource Management Offices (RMOs) regarding which Investments are considered "major." Investments not considered "major" are "non-major."
Managing Partner	Federal IT Shared Services Strategy, May 2, 2012	This term refers to the lead Agency that is responsible for coordinating the implementation of the E-Gov or LoB initiative. The managing partner maintains an IT shared service with approval by Agency leadership for Intra-Agency services, and also by OMB for Inter-Agency services. The Managing Partner organization, often referred to as the Program Management Office (PMO), develops, implements, and maintains financial and service models as well as contracts with Customers and Suppliers using strategic sourcing vehicles whenever practicable. The Managing Partner PMO is responsible for the success of the IT shared service, and reports using metrics developed by the Federal Agency for its own Intra-Agency IT shared services, and by the Federal CIO Council's Shared Services Subcommittee for Inter-Agency LoB. Managing Partners are also responsible for maintaining contracts with Customer Agencies that

Term	Source Document	Definition
		allow the Customer Agency to terminate the contract if specified levels of service are not maintained.
Modular Development	Contracting Guidance to Support Modular Development, June 14, 2012	An approach that focuses on the delivery of specific Investments, projects, or activities of an overall capability by progressively expanding upon delivered capabilities until the full capability is realized. Investments may be decomposed into discrete projects, increments, or useful segments, each of which is undertaken to develop and implement products and capabilities that the larger Investment delivers. For more information, see Contracting Guidance to Support Modular Development (OMB, June 14, 2012).
Mobile Devices	OMB Circular A-11 (2010)	Total non-desktop, non-laptop, small form factor wireless end user device costs, including: hardware (including handsets, tablets, and wireless modems such as air cards), software, labor, maintenance, and service (including network service, such as cellular voice and data plans). Help desk costs should not be included here.
Net Savings	OMB Circular A-131	The amount of cost savings (per Circular A-131) minus the cost required to implement and operate the cost savings or cost avoidance strategy.
Network Standard Investment	IT Budget - Capital Planning Guidance	Includes both local area networks (LAN) as well as landline voice phone capabilities (non-mobile). Physical and wireless local area network connecting equipment within the core data centers and connecting end users in office working areas to the Agency's broader networks. Wide area network equipment, labor and support services directly connecting data centers, offices and third parties. Also includes voice resources which enable or distribute voice services through on premise equipment including PBX, VoIP, voicemail and handsets.
Network storage	OMB Circular A-130	Applies to any data processing environment (such as production, backup, DR/COOP, test, development, etc.) and includes: • Hardware (storage controllers, storage servers): Includes all dedicated storage hardware devices such as controllers, servers, disk arrays, tape libraries, and optical jukeboxes, as well as supplies (media) used to store data offline such as tapes. • Software: Includes software dedicated to managing the storage systems, including creation and setup, storage maintenance, reporting, security, monitoring, backup/restore, archival, replication, media handling and data migration/tiering.

Term	Source Document	Definition
		• Disaster recovery: Includes the hardware, software, facilities and contracts specifically dedicated to disaster recovery for storage management. • Outsourcing: Includes third party and outsource contracts, such as managed storage services and cloud-based storage. • Personnel: In-house costs for government personnel (salaries and benefits) and costs for contract personnel supporting operations/maintenance, engineering/technical services, planning and process management, services administration, management and administration allocated to storage systems. *Note*: Dollars should only appear in ONE category, for example network storage OR mainframes and servers.
New IT Investment	IT Budget - Capital Planning Guidance	This term refers to an IT Investment and its associated projects that is newly proposed by the Agency and that has not been previously reported/funded by OMB. An asset(s) within an Investment that is essentially replaced by a new system or technology may be reported as a new, distinct Investment, with its own defined life cycle costs, or may be included within the current Investment.
Non-Major IT Investment	IT Budget - Capital Planning Guidance	This term refers to any IT Investment in the Agency's IT Portfolio that does not meet the definition of “major IT Investment” (01), "Funding Transfer Investment" (04) or "IT Migration Investment" (03). All non-major IT Investments must be reported in the Agency IT Investment Portfolio. For more details see section 10 of CPIC IT Portfolio Guidance.
Ongoing IT Investment	IT Budget - Capital Planning Guidance	Ongoing IT Investment refers to an Investment and its associated assets, including both maintenance projects and operational activities, that has been through a complete Budget Cycle with OMB with respect to the President's Budget for the current year (CY) — in this case, for FY 2017.
Operational Analysis	Capital Planning Guide; GAO-13-87	This term refers to a method of examining the ongoing performance of an operating asset Investment and measuring that performance against an established set of cost, schedule, and performance goals. An operational analysis is, by nature, less structured than performance reporting methods applied to developmental projects and should trigger considerations of how the Investment's objectives could be better met, how

Term	Source Document	Definition
		costs could be reduced, and whether the organization should continue performing a particular function. Guidance for Operational Analysis is described in the Capital Programming Guide. Best Practices can also be found in GAO's GAO-13-87 report.
Operations	OMB Circular A-130; IT Budget - Capital Planning Guidance	This term refers to the day-to-day management of an asset in which the asset is in operations production environment and produces the same product or provides a repetitive service. Operations include, but are not limited to, activities that operate data centers, help desks, operational centers, telecommunication centers, and end-user support services. Operational activities are located in Section C of the Major IT Investment Update part of the FY16 CPIC Guidance.
Operations and Maintenance (Steady State) Costs	IT Budget - Capital Planning Guidance	Operations & Maintenance Costs refers to the expenses required to operate and maintain an IT asset that is operating in a production environment. O&M costs include costs associated with operations, maintenance activities, and maintenance projects needed to sustain the IT asset at the current capability and performance levels. It includes Federal and contracted labor costs, corrective hardware and software maintenance, voice and data communications maintenance and service, replacement of broken or obsolete IT equipment, overhead costs, business operations and commercial services costs, and costs for the disposal of an asset. Also commonly referred to as steady state.
Partner (Customer) Agency	Federal IT Shared Services Strategy, May 2, 2012	This term refers to the Agency in an inter/intra Agency collaboration (such as an E-Gov or LoB initiatives or a shared services). The Federal Agency or sub-organization that contracts with and pays a Managing Partner to receive an IT shared service. The Customer Agency organization may be required to interact with a Supplier for the coordination of day-to-day service issues. The Managing Partner handles major contract issues and resolves escalation items with Suppliers. The Partner Agency usually provides resources (e.g., funding, FTEs, in-kind) for the management, development, deployment, or maintenance of a common solution. The partner Agency is also responsible for including the appropriate line items in its own Agency IT Investment Portfolio budget submission, and reflecting the amount of the contribution for each of the initiatives to which the Agency provides resources.

Term	Source Document	Definition
Performance Reference Model (PRM)	FEA Consolidated Reference Model Document, Version 2.3; GPRA 2010 Public Law 111-352	PRM refers to one of six reference models of the FEA. The PRM allows Agencies to better manage the business of government at a strategic level, by providing a means for using the EA to measure the success of Investments and their impact on strategic outcomes. The PRM establishes a line of sight to outcomes and a common language to describe the outputs and measures used to achieve strategic objectives through coupled business services (mission and support). The PRM shows the linkage between internal business components and the achievement of business and customer-centric outputs and outcomes. Most importantly, the PRM helps to support planning and decision-making based on comparative determinations of which programs and services are more efficient and effective. The PRM is both a taxonomy and a standard method for performance measurement as it provides for a common approach to performance and outcome measurements throughout the Executive Branch of the Federal Government, as is required by the Government Performance and Results Modernization Act of 2010 (P.L. 111-352). Current PRM service codes can be found in PRM version 3.
Performance-Based Acquisition Management	FAR 37.101	Performance-Based Acquisition Management refers to a documented, systematic process for program management, which includes the integration of program scope, schedule and cost objectives, the establishment of a baseline plan for accomplishment of program objectives, and the use of earned value techniques for performance measurement during execution/acquisition of the program. This type of management includes prototypes and tests to select the most cost-effective alternative during the planning phase; the work during the acquisition phase; and any developmental, modification, or upgrade work done during the O&M phase. A performance-based acquisition (as defined in the FAR 37.101) or contract/agreement with a defined quality assurance plan that includes performance standards/measures should be the basis for monitoring contractor or in-house performance of this phase.
Planning	40 U.S.C. § 11315; OMB Circular A-130	Planning refers to preparing, developing, or acquiring the information used to design the asset; assess the benefits, risks, and risk-adjusted costs of alternative solutions; and establish realistic cost, schedule, and performance goals for the selected alternative, before either proceeding to full

Term	Source Document	Definition
		acquisition of the capital project or useful component or terminating the project. Planning must progress to the point where the Agency is ready to commit to achieving specific goals for the completion of the acquisition before proceeding to the acquisition phase. Information gathering activities to support planning may include market research of available solutions, architectural drawings, geological studies, engineering and design studies, and prototypes. Planning may be general to the overall Investment or may be specific to a useful component. For Investments developed or managed using an incremental or agile methodology, planning will be conducted throughout the entire acquisition, focusing on each iteration/sprint.
Platform as a Service (PaaS) Cloud Computing	NIST Special Publication 800-145 -The NIST Definition of Cloud Computing	The capability provided to the consumer to deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages, libraries, services, and tools supported by the provider. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment (NIST Special Publication 800-145 -The NIST Definition of Cloud Computing).
PortfolioStat Review	OMB memo M-13-09; FY13 PortfolioStat Guidance: Strengthening Federal IT Portfolio Management	PortfolioStat refers to a face-to-face, evidence-based review of an Agency's IT portfolio. Reviews can be used to identify and address a broad range of issues, including management of commodity IT, duplication of Investments, and alignment with the Agency's mission and strategy. More detail regarding the PortfolioStat process is described in OMB memo M-13-09 – Fiscal Year 2013 PortfolioStat Guidance: Strengthening Federal IT Portfolio Management
Post-Implementation Review (PIR)	Capital Programming Guide; OMB Circular A-130	PIR refers to an evaluation of how successfully the Investment or project objectives were met and how effective the project management practices were in keeping the Investment or project on track. A PIR can be conducted after a project has been completed, or after an Investment concludes the implementation phase. Additional details regarding the PIR process is described in the Capital Programming Guide.
Privacy Impact Assessment	OMB Memo M-03-22	Privacy Impact Assessment is a process for examining the risks and ramifications of using IT to

Term	Source Document	Definition
		collect, maintain, and disseminate information from or about members of the public in an identifiable form. The process also is also used to identify and evaluate protections and alternative processes to mitigate the impact to privacy of collecting such information. Consistent with OMB guidance M-03-22 regarding implementing the privacy provisions of the E-Government Act, Agencies must conduct and make publicly available PIAs for all new or significantly altered IT Investments that administer information in an identifiable form collected from or about members of the public.
Private Cloud	NIST Special Publication 800-145 - The NIST Definition of Cloud Computing	Cloud computing technology in which the cloud infrastructure is provisioned for exclusive use by a single organization comprising multiple consumers (e.g., business units). It may be owned, managed, and operated by the organization, a third party, or some combination of them, and it may exist on or off premises. (NIST Special Publication 800-145 - The NIST Definition of Cloud Computing).
Product Backlog	Forthcoming Agile Development GuidanceAgile Methodology	This term refers to a comprehensive to-do list, expressed in priority order based on the business value each piece of work will generate.
Product Owner	Forthcoming Agile Development GuidanceAgile Methodology	The Product Owner is responsible for maximizing the value of the product and the work of the Development Team. The Product Owner is the sole person responsible for managing the Product Backlog. Product Backlog management includes: Clearly expressing Product Backlog items; Ordering the items in the Product Backlog to best achieve goals and missions; Optimizing the value of the work the Development Team performs; Ensuring that the Product Backlog is visible, transparent, and clear to all, and shows what the Scrum Team will work on next; and, Ensuring the Development Team understands items in the Product Backlog to the level needed. The Product Owner may do the above work, or have the Development Team do it. However, the Product Owner remains accountable. The Product Owner is one person, not a committee. The Product Owner may represent the desires of a committee in the Product Backlog, but those wanting to change a Product Backlog item's priority must address the Product Owner. For the Product Owner to succeed, the entire

Term	Source Document	Definition
		organization must respect his or her decisions. The Product Owner's decisions are visible in the content and ordering of the Product Backlog. No one is allowed to tell the Development Team to work from a different set of requirements, and the Development Team isn't allowed to act on what anyone else says.
Project	40 U.S.C. § 11315; OMB Circular A-130	This term refers to a temporary endeavor undertaken to accomplish a unique product or service with a defined start and end point and specific objectives that, when attained, signify completion. Projects can be undertaken for the development, modernization, enhancement, disposal, or maintenance of an IT asset. Projects are composed of activities. When reporting project status, to the maximum extent practicable, Agencies should detail the characteristics of "increments" under modular contracting as described in the Information Technology Management Reform Act of 1996 (ITMRA, also known as the "Clinger-Cohen Act") and the characteristics of "useful segments," as described in OMB Circular A-130.
Project Manager Level of Experience	Federal IT Project Manager Guidance Matrix published by the CIO Council	This term refers to the specific certification(s) or number of years of direct project management experience that the PM holds. Examples of PM certifications include FAC-P/PM, Project Management Institute's Project Management Professional (PMP), and other recognized certifications. Refer to Federal IT Project Manager Guidance Matrix published by the CIO Council.
Provisioned IT Service	IT Budget - Capital Planning Guidance	Provisioned IT Service is a new category of funds that must be reported as appropriate. A "Provisioned IT Service" refers to an IT service that is (1) owned, operated, and provided by an outside vendor or external government organization (i.e., not managed, owned, operated, and provided by the procuring organization) and (2) consumed by the Agency on an as-needed basis. Provisioned IT services are considered subcategories of DME and O&M. Examples of Provisioned IT Service may include the purchase of E-Gov LoB from another Federal Agency, or the purchase of SaaS, PaaS, IaaS from a private service provider, or the purchase of shared services or cloud services. Provisioned IT Service excludes Software Licenses but includes both Intra-Agency and Inter-Agency Shared Services.
Public Cloud	NIST Special Publication 800-145 -The NIST	Cloud computing technology in which the cloud infrastructure is provisioned for open use by the

Term	Source Document	Definition
	Definition of Cloud Computing	general public. It may be owned, managed, and operated by a business, academic, or government organization, or some combination of them. It exists on the premises of the cloud provider. (NIST Special Publication 800-145 -The NIST Definition of Cloud Computing).
Records	44 U.S.C. § 3502; OMB Circular A-130	Records refers to all books, papers, maps, photographs, machine-readable materials, or other documentary materials, regardless of physical form or characteristics, made or received by an Agency of the United States Government under Federal law or in connection with the transaction of public business. Records may also include items that are preserved or appropriate for preservation by that Agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the Federal Government or because of the informational value of data in them. Library and museum material made or acquired and preserved solely for reference or exhibition purposes, extra copies of documents preserved only for convenience of reference, and stocks of publications and processed documents are may not be included as records.
Release	Forthcoming Agile Development GuidanceAgile Methodology	A Release is a release of a product that is shipped to the customer. Each development project has a set number of releases, and within the releases can be multiple versions if that is how the Product Owner or Manager sets up the schedule. Example for Release #0001: Version 1: login, logout, password management Epics: 1 Sprints: 3 Total Story Points: 48 Version 2: purchase history Version 3: saving preferences
Risk Management	Capital Programming Guide	Risk Management refers to a systematic process of identifying, analyzing, and responding to risk. It includes maximizing the probability and consequences of positive events and minimizing the probability and consequences of adverse events to overall objectives. Risk management should be conducted throughout the entire life cycle of the program.
Risk Management Plan	Capital Programming Guide	Risk Management Plan refers to a documented and approved plan developed at the onset of the Investment and maintained throughout that

Term	Source Document	Definition
		specifies the risk management process.
"Shadow IT" or "Hidden IT"	OMB Memo M-15-14	Refers to spending on IT that is not fully transparent to the Agency CIO and/or IT resources included as a portion of a program that is not primarily of an "information technology" purpose but delivers IT capabilities or contains IT resources. For example, a grants program that contains a portion of its spending on equipment, systems, or services that provide IT capabilities for administering or delivering the grants.
Shared Service Provider	IT Budget - Capital Planning Guidance	This term refers to the provider of a technical solution and/or service that supports the business of multiple Agencies using a shared architecture. For Multi-Agency services, this is the Managing Partner of the Investment.
Shared Services	Federal IT Shared Services Strategy, May 2, 2012	This term refers to services that are provided by one Federal organization to other Federal organizations that are outside of the provider's organizational boundaries. Shared services may be Intra-Agency or Inter-Agency. There are three categories of shared services in the Federal Government: commodity IT, support, and mission services. • Commodity IT – including IT infrastructure and Enterprise IT services. • Support Services –capabilities that support common business functions performed by nearly all Federal organizations. These include functional areas such as budgeting, financial, human resources, asset, and property and acquisition management. Shared Commodity IT and Support Services are considered to be IT; associated costs must be included/reported as part of the IT Portfolio. • Mission Services – These are core purpose and functional capabilities of the Federal Government; such as disaster response, food safety, national defense, and employment services.
Software as a Service (SaaS) Cloud Computing	NIST Special Publication 800-145 -The NIST Definition of Cloud Computing	The capability provided to the consumer to use the provider's applications running on a cloud infrastructure. The applications are accessible from various client devices through either a thin client interface, such as a web browser (e.g., web-based e-mail), or a program interface. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, storage, or even individual application capabilities, with the possible exception of limited user-specific application configuration settings (see NIST Special Publication 800-145 -The NIST

Term	Source Document	Definition
		Definition of Cloud Computing).
Standard IT Infrastructure, Security and Management Investment	IT Budget - Capital Planning Guidance	See also IT Management, IT Security and Compliance, Data Center and Cloud, Network and End User Standard Investment definitions.
Standard Investment	IT Budget - Capital Planning Guidance	Formerly Part 3: IT Infrastructure Investments that have been disaggregated to their discrete components and managed separately.
Standard Investment Report	IT Budget - Capital Planning Guidance	Reports submitted on a regular basis to accompany Standard Investments, which include performance metrics, projects, and a variety of other metrics specific to the type of infrastructure
TBM IT Cost Pool and IT Tower Definitions	TBM Council v2 IT Budget - Capital Planning Guidance	See Appendix E.
TechStat Accountability Review	OMB Memo M-10-31	This term refers to a face-to-face, evidence-based review of an IT program with Bureau/Agency leadership and OMB as appropriate. TechStat sessions enable the Federal Government to turn around, halt, or terminate IT Investments that do not produce dividends for the American people. More detail regarding the TechStat process is described in the TechStat Training Deck (see https://cio.gov/deliver/techstat).
Telecommunications	44 U.S.C. § 3542; OMB Circular A-130; OMB Circular A-11 (2010)	Includes telecommunications that are organized, procured and managed and/or operated by the Agency. Services may be provided for elements such as voice (voicemail, legacy voice service, and VoIP), data communications through the Wide Area Network (WAN)/Local Area Network (LAN) and associated access/transport options, Trusted Internet Connection (TIC), non-desktop Audio and Video Teleconference (VTC), and associated communications infrastructure elements (e.g., Structured Cabling Costs). • Voice Network/Services are (WASP/WITS, Legacy Analogue/Digital Voice, Voice Mail, Conference Bridge, automated operator services, and VoIP). • Wide Area Network (WAN) is a private, public or hybrid geographically dispersed network. • Local Area Network (LAN) is a private, public, or hybrid local area network. • Trusted Internet Connection (TIC) infrastructures, which provide a layer of consolidation and security for internet facing traffic. • Video Teleconferencing (VTC) is a collaborative

Term	Source Document	Definition
		meeting communications method. Only shared (non-desktop) locations should be included under telecommunications unless the desktop instance is a part of a specialized VTC used for remote or ad hoc shared connectivity. Typically utilizes PRI, IP, ISDN or Ethernet for connectivity. • Labor Costs including - FTE, Contract Support, Managed Services, and Other elements. Excludes cellular equipment, devices or services which are included in Mobile Devices.
Unique Investment Identifier (UII)	OMB Memo M-11-33	UII refers to a persistent numeric code applied to an Investment that allows the identification and tracking of an Investment across multiple FYs of an Agency's IT portfolio. The UII is composed of a three-digit Agency code concatenated with a nine-digit unique Investment number generated by the Agency. Some nine-digit numbers are reserved for OMB to assign and may not be assigned by Agencies, as controlled by the restrictions described in the section on "Variable Information." http://www.whitehouse.gov/sites/default/files/omb/memoranda/2011/m11-33.pdf - Page 14
User Stories	AgileManifesto.org	This term refers to high level requirements written by the project stakeholders or customers. These requirements are prioritized and further developed during sprints and determined acceptable by product owner or manager and stakeholders or customers.
Web Hosting, Infrastructure, and Content	OMB Circular A-11 (2010)	The following describes Infrastructure, and Content Management, Web Hosting: • IT Infrastructure Maintenance involves the planning, design, and maintenance of an IT Infrastructure to effectively support automated needs (e.g., platforms, networks, servers, printers). • Content Management includes capabilities to manage the storage, maintenance and retrieval of documents and information of a system or website. • Web Hosting refers capabilities to manage and provide availability to a web site or application, often bound to a Service Level Agreement (SLA). • Where appropriate, overlapping dollars should be entered in Mainframes and Servers only.

APPENDIX D. IT SECURITY CAPABILITY DEFINITIONS

NIST Framework Function	Capability	Definition
Identify	Continuous Diagnostics and Mitigation (CDM)	Costs associated with implementing and maintaining the tools associated with the CDM program. This includes costs associated with software licensing, support (contractor and/or Federal employee), and appropriate training.
Identify	Non-CDM ISCM - Asset Inventory (HW, SW)	Costs associated with ISCM capabilities related to maintaining awareness of hardware and software assets connected to the Agency network that do not fall under the CDM program.
Identify	Non-CDM ISCM - Detecting, alerting, and blocking unauthorized assets	Costs associated with ISCM capabilities related to the detection of unauthorized hardware and software (i.e.whitelisting), the alerting of security personnel, and the subsequent blocking of unauthorized assets that do not fall under the CDM program.
Identify	Attainment and renewal of system ATOs	Costs associated with the attainment and renewal, either annual or continuous, of authorizations to operate (ATOs) for Agency information systems. This includes costs associated with security control testing and system-specific contingency planning and testing.
Identify	Standards Development and Propagation	Cybersecurity is becoming more standards-based to further improve automation, interoperability, and efficiency. NIST has the lead to develop standards, coordinate, and support Agencies.
Identify	Other Identify Capabilities	To include other cybersecurity costs associated with the Identify function that have not been accounted for in other capability areas, including for management. Agencies must specify the activities attributed to this capability category and the spending associated with each activity. Agency spending in Other Identify Capabilities should not exceed 10% of total spending in the Identify function area.
Protect	Trusted Internet Connections	Costs associated with the acquisition and maintenance of Trusted Internet Connections (TICs) or obtaining services via a government Trusted Internet Connection Access Provider (TICAP) or a Managed Trusted Internet Protocol Services (MTIPS) provider.
Protect	Credentialing	Credentialing is a system by which identification cards, such as Personal Identity Verification (PIV) cards, or other tokens are used to authenticate a person and transmit skills, qualifications, and other attributes associated with that identity. This includes requiring authentication to access data/data systems; utilizing a physical token (e.g., ID badge) that reflects a particular level of assurance (LOA) required for access to a physical or logical enterprise enclave; verifying and maintaining the verification of a particular end-user's identity; federating the identities/access/authorities granted; and confirming the identity of a potential user before being allowed access to the physical or logical enclaves of the enterprise. For Agencies that provide credentialing services, the spending for such services should be called out as a separate

NIST Framework Function	Capability	Definition
		Credentialing capability from the Agency's internal capabilities.
Protect	Authorization and Least Privilege	Least privilege is the principle that only the minimum necessary rights should be assigned to a subject and should be in effect for the shortest duration necessary. This includes managing the particular usage rights an authorized user has on a device or system; utilizing mechanisms by which a previously authenticated users are allowed to perform actions such as using a particular system within the enterprise; and ensuring authorization after access involves the user roles assigned and the access privileges this extends to data systems.
Protect	Insider Threat	Per Executive Order 13587, Agencies are each required to establish an Insider Threat Program. This program should include capabilities for deterring, detecting, and mitigating insider threat; leveraging counterintelligence (CI), security, information assurance, and other relevant functions and resources to identify and counter insider threats; monitoring and auditing information for insider threat detection and mitigation; developing and implementing sharing policies and procedures; promulgating additional department and Agency guidance, if needed, to reflect unique mission requirements; implementing and performing self-assessments of compliance with insider threat policies and standards; and enabling independent assessments. This should incorporate spending previously included under the Data Visibility capability.
Protect	Security Configuration Compliance and Auditing	Configuration management is the discipline and processes that keep track of how hardware, operating systems, software versions, and updates that are installed are deployed as part of the enterprise computing infrastructure. From a security standpoint, using unauthorized configurations is a negative and changes to configurations may be indicators of compromise that should be blocked from access until remedied. This should incorporate spending previously included under the Configuration Management capability).
Protect	Vulnerability Management	Proactively managing vulnerabilities can reduce or eliminate the potential for exploitation and involve considerably less time and effort than responding after an exploitation. This metric includes costs associated with the identification, assessment, and management of security vulnerabilities. This includes patch management.
Protect	Vulnerability Testing and Analysis	Assessing the vulnerability of an enterprise by multiple means of vulnerability scanning and penetration testing, including automated Penetration Testing, formal Red Team Exercise, and continuous Red Team hacking to identify remaining vulnerabilities. This includes services provided by the DHS

NIST Framework Function	Capability	Definition
		National Cybersecurity Assessment and Technical Services (NCATS) team and those acquired under the GSA Highly Adaptive Cybersecurity Services (HACS) Special Item Numbers (SINs). Formerly Vulnerability Assessment
Protect	Security Training	Costs associated with the creation and utilization of cybersecurity awareness and training (CSAT) materials, including tools, design, and training completion tracking. This includes conducting phishing exercises and role-specific training for users with significant security capabilities.
Protect	Cloud Services	The practice of acquiring cloud services and applications and ensuring they meet adequate security expectations. This includes assessing potential cloud services for alignment with established FedRAMP security baselines; acquiring tools to enhance the security of cloud-based applications; granting Agency ATOs for systems and service with an existing FedRAMP ATO; and the granting of ATOs to cloud service providers.
Protect	Data Safeguarding – Data At Rest	Safeguarding data at rest involves strong data encryption. This begins with individual encrypted files, progressing to device encryption, data set encryption, etc. Ultimately, it can include data destruction to prevent compromise, including such concepts as remote data wiping and ephemeral data.
Protect	Data Encryption - Data in Motion	Safeguarding data in motion requires encryption as well, starting with methods of encrypted file transfer, encrypted emails, and progressing through transport layer security/SSL to virtual private networks to highly secure individual data networks.
Protect	Research & Development	R&D related to cyber security and information assurance to protect computer-based systems from actions that compromise or threaten to compromise the authentication, availability, integrity, or confidentiality of these systems and/or the information they contain.
Protect	Counterintelligence	Information gathered and activities conducted to protect against cyber espionage, other intelligence activities, or sabotage conducted for or on behalf of foreign powers, organizations, or persons, or international terrorist activities.
Protect	Other Protect Capabilities	To include other cybersecurity costs associated with the Protect function that have not been accounted for in other capability areas, including for management. Agencies must specify the activities attributed to this capability category and the spending associated with each activity. Agency spending in Other Protect Capabilities should not exceed 10% of total spending in the Protect function area.
Detect	Anti-Phishing	The practice of implementing technologies and processes and that reduce the risk of malware introduced through email and social engineering. This includes anti-phishing and -spam

NIST Framework Function	Capability	Definition
		filters; analyzing incoming email traffic using sender authentication, reputation filters, embedded content detection, and suspicious attachments; and utilizing sender authentication protocols on outgoing email traffic to allow recipients to verify the originator.
Detect	Data Loss Prevention	Data Loss Prevention refers to technology deployed at the user endpoint or network level that is designed to discover sensitive content and block its exfiltration from the control of the enterprise. DLP systems are principally concerned with the data exiting a perimeter gateway, including emails, instant messages and Web 2.0 applications. However, this can be extended to copying of sensitive data to other media, such as a thumb drive; inappropriate collection and storage on a user endpoint; or printing of sensitive data.
Detect	Intrusion Prevention	The practice of intrusion prevention involves blocking and reporting suspicious activity on the enterprise perimeter or network. These can be security threats or policy violations. Intrusion prevention can include dropping of malicious packets, blocking/filtering a specific URL, and so forth.
Detect	Malware Defense	Includes the cost of anti-virus solutions, as well as tools designed for anti-exploitation, blocking known phishing websites and IP addresses, scanning assets for malware prior to connecting to an unclassified network, and/or web content filtering.
Detect	Other Detect Capabilities	To include other cybersecurity costs associated with the Detect function that have not been accounted for in other capability areas, including for management. Agencies must specify the activities attributed to this capability category and the spending associated with each activity. Agency spending in Other Detect Capabilities should not exceed 10% of total spending in the Detect function area.
Respond	Incident Management & Response	Costs associated with responding to and managing information security incidents. This includes case management – recording, ticketing, tracking, reporting, resolution – of a security incident; Security Operations Center (SOC) operators; and incident response planning and testing.
Respond	Other Respond Capabilities	To include other cybersecurity costs associated with the Respond function that have not been accounted for in other capability areas, including for management. Agencies must specify the activities attributed to this capability category and the spending associated with each activity. Agency spending in Other Respond Capabilities should not exceed 10% of total spending in the Respond function area.
Recover	Disaster Recovery	Costs associated with returning a system or systems to operating capability following a disaster, including through the use of back-up and restore techniques, duplicate “continuity of operations (COOP) sites”, cloud-based restoration, or full

NIST Framework Function	Capability	Definition
		cloud-based COOP operations.
Recover	Incident Recovery	Costs associated with remediating the impacts of a particular cyber-related (electronic) incident (per OMB memorandum M-15-01) to return the system, application, or e-mail to normal, non-threatening behavior.
Recover	Incident Notification	The practice of providing public/internal notifications to potentially impacted persons following cybersecurity incidents involving the possible loss of PII and offering remediation for those adversely affected. This includes assessing potential impact to the public or internal populations; issuing public/internal notifications following an incident; tracking the issuance of notifications; and the acquisition and use of credit monitoring and credit repair services.
Recover	Other Recover Capabilities	To include other cybersecurity costs associated with the Recover function that have not been accounted for in other capability areas, including for management. Agencies must specify the activities attributed to this capability category and the spending associated with each activity. Agency spending in Other Recover Capabilities should not exceed 10% of total spending in the Recover function area.

APPENDIX E. TECHNOLOGY BUSINESS MANAGEMENT IT COST POOLS AND IT TOWER DEFINITIONS

The list of TBM Tower definitions is provided below:

Tower	Sub-Tower	Definition
Data Center	Enterprise Data Center	Purpose-built data center facilities that house and protect critical IT equipment including the space, power, environment controls, racks, cabling, and "smart hand" support.
	Other Facilities	Computer rooms and MDF/IDF/telco closets that house IT equipment in corporate headquarters, call centers, or other general purpose office buildings.
Compute	Servers	Physical and virtual servers running a version of Microsoft's Windows Server or the Linux operating system; includes hardware, software, labor and support services. Optional Level 3 categories include: Windows, Linux and Public Cloud Compute.
	Unix	Servers running vendor-specific, proprietary Unix operating systems (e.g., IBM AIX, Sun Solaris, HP UX); includes hardware, software, labor and support services.
	Midrange	Servers running IBM AS/400 platform including hardware, software, labor and support services.
	Converged Infrastructure	Purpose-built appliances that provide compute, storage and network capabilities in one box.
	Mainframe	Traditional mainframe computers and operations running legacy operating systems.
Storage	Online Storage	Central storage such as SAN, NAS and similar technologies for the distributed compute infrastructure; includes the equipment, software and labor to run and operate. Optional Level 3 categories include: On-Prem, Public Cloud Storage.
	Offline Storage	Offline storage resources used for archive, backup & recovery to support data loss, data corruption, disaster recovery and compliance requirements of the distributed storage.
	Mainframe Online Storage	Mainframe attached storage arrays and the associated equipment, software and labor to run and operate.
	Mainframe Offline Storage	Any storage resources used for archive, backup & recovery to support data loss, data corruption, disaster recovery and compliance requirements of the

Tower	Sub-Tower	Definition
		mainframe storage.
Network	LAN/WAN	Physical and wireless local area network connecting equipment within the core data centers and connecting end users in office working areas to the company's broader networks. Wide area network equipment, labor and support services directly connecting data centers, offices and third parties (excludes telecom and communication services). Optional Level 3 categories include: LAN, WAN.
	Voice	Voice resources which enable or distribute voice services through on-premise equipment including PBX, VoIP, voicemail and handsets (excludes telecom and communication services).
	Transport	Data network circuits and associated access facilities and services; includes dedicated and virtual data networks and internet access. Also includes usage associated with mobility and other data transit based on usage billing. Voice network circuits and associated access facilities and services. Also includes usage associated with standard telephone calls and 800 number service. Both voice and data transport may include terrestrial and non-terrestrial (e.g., satellite) technologies. Optional Level 3 categories include: Data, Voice.
Output	Central Print	Central print services; often provided to support customer billing or customer documentation support processes. Unit of measure: page.
End User	Workspace	Client compute physical desktops, portable laptops, thin client machines, peripherals (including monitors, pointer devices and attached personal printers) used by individuals to perform work.
	Mobile Devices	Client compute tablets, smart phones (iOS, Android, Windows Mobile) and apps used by individuals to perform work.
	End User Software	Client related software used to author, create, collaborate and share documents and other content. Examples include email, communications, messaging, word processing, spreadsheets, presentations, desktop publishing, graphics and others. Optional Level 3 categories include Productivity; Communications; Collaboration.

Tower	Sub-Tower	Definition
	Network Printers	Printers located on or near users' desktops. Examples include network connected personal printers, ink-jet printers, laser printers, departmental or copy-room printers. Only include network connected printers. Do not include printers connected to an end user computer. Also include multi-functional
	Conferencing & AV	Audio and video conferencing equipment typically used in conference rooms and dedicated telepresence rooms to enable workforce communications.
	IT Help Desk	Centralized Tier 1 help desk resources that handle user requests, answer questions and resolve issues.
	Deskside Support	Local support resources that provide on-site support for moves, adds, changes and hands on issue resolution.
Application	Application Development	Resources involved with the analysis, design, development, code, test and release packaging services associated with application development projects. Optional Level 3 categories include: Development, QA
	Application Support & Operations	The operations, support, fix and minor enhancements associated with existing applications.
	Business Software	Software expenditures including licensing, maintenance and support related to off-the-shelf software purchases.
	Database	Distributed database services focused on the physical database (versus the logical design) including DBAs, DBMS, tools and operational support.
	Middleware	Distributed platform, application and system integration resources enabling cross application development, communications and information sharing.
	Mainframe Database	Mainframe database services focused on the physical database (versus the logical design) including the DBAs, DBMS, tools and operational support.
	Mainframe Middleware	Mainframe platform, application and system integration resources enabling cross application development, communications and information sharing.
Delivery	IT Service Management	Resources involved with the incident, problem and change management activities as part of the IT Service Management process (excludes the Tier 1 help desk).
	Project Management	Resources involved with managing and supporting IT

Tower	Sub-Tower	Definition
		related projects including business and IT-driven initiatives.
	Client Management	Resources or "account managers" aligned with the lines of business to understand business needs, communicate IT products, services and status of IT projects.
	Operations Center	Centralized IT Operations Center resources including monitoring and intervention e.g., NOC (network operations center), GOC (global operations center).
Security & Compliance	Security	IT Security resources setting policy, establishing process & means, measuring compliance and responding to security breaches. Optional Level 3 categories include: Cyber Security.
	Compliance	IT Compliance resources setting policy, establishing controls and measuring compliance to relevant legal and compliance requirements. Optional Level 3 categories include: Data Privacy.
	Disaster Recovery	IT Disaster Recovery resources setting DR policy, establishing process & means, dedicated failover facilities, performing DR testing. NOTE: DR designated equipment is included directly in its own sub-Tower (e.g., extra servers for DR are included in Compute Tower, etc.).
IT Management	IT Management & Strategic Panning	IT management and administration resources; typically CIO, senior IT leaders and administrative support including centralized IT strategy and planning.
	Enterprise Architecture	Enterprise architecture services including business, information, application and technical architecture to drive standardization, integration and efficiency among business technology solutions.
	IT Finance	Resources involved in the planning, budgeting, spend management and chargeback of IT expenditures and the costing of IT products and services.
	IT Vendor Management	Resources involved in the selection, contract management, oversight, performance management and general delivery of services by 3rd party vendors and external service providers.

The list of TBM cost pool definitions is provided below:

Cost Pool	Cost Sub-Pool	Definition
Operating Expenditures (OpEx)		
Internal Labor	Expense	Employee wages, benefits, expenses & occupancy. This represents government employees.
External Labor	Expense	External contractor fees, travel, and expenses. This represents contractors when contractor labor is known and not just wrapped up into "Outside Services" contract costs.
Outside Services	Consulting	External consulting project-based services.
	Managed Service Providers	External managed service providers.
	Cloud Service Providers	External public cloud service providers including IaaS, PaaS, and SaaS.
Hardware	Expense	Hardware expense of non-capitalized purchases (e.g., spare parts, consumables or equipment below capitalization threshold).
	Lease	Hardware lease expenditures (e.g., hardware purchased through a supplier or financial services leasing arrangement).
	Maintenance & Support	Hardware maintenance and support expenditures.
	Depreciation & Amortization	Hardware depreciation of capitalized purchases.
Software	Expense	Software expense of non-capitalized software purchases.
	Subscription	Software subscription expenditures.
	Maintenance & Support	Software maintenance and support expenditures.
	Depreciation & Amortization	Software depreciation of capitalized software license purchases & software development efforts.
Facilities and Power	Expense	Data center space, power, security and other operating expenses (e.g., co-location facility services, electricity, water, etc.).
	Lease	Data center lease expenditures.
	Maintenance & Support	Data center maintenance & support expenditures.

Cost Pool	Cost Sub-Pool	Definition
	Depreciation & Amortization	Data center depreciation of facility build and leasehold improvements (e.g., raised floor Investments, power/PDU infrastructure, and rack build-out).
Telecom	Expense	Voice and data network connectivity expenses including circuit and usage expenditures.
	Lease	Telecom lease expenditures.
	Maintenance & Support	Telecom maintenance & support expenditures.
	Depreciation & Amortization	Depreciation/amortization of any capitalized telecom expenditures; typically, this will show up under Hardware or Facilities depreciation/amortization.
Other	Other	Miscellaneous or non-standard expenses.
Internal Services	Shared Service	Miscellaneous charges received from other internal shared services groups (e.g., HR service fees from the HR department). Real estate management fees for space and power should be included in the Facilities and Power cost pool. Note: Organizational components transferring funding to another component would list the funding under internal services. The receiving organization would report in the contributions field and represent the costs in the appropriate cost pool(s).
Capital Expenditures (CapEx)		
Internal Labor	Capital	Capitalized labor (internal employees)
External Labor	Capital	Capitalized labor (external contractors)
Hardware	Capital	Capitalized hardware expenditures
Software	Capital	Capitalized software expenditures
Outside Services	Capital	Capitalized services
Facilities & Power	Capital	Capitalized leasehold improvements
Telecom	Capital	Capitalized telecom expenditures