



Office of the Secretary
Data Center Consolidation Initiative (DCCI)
Plan

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Approval of this document demonstrates agreement on the scope, desired outcomes, schedule, costs, and resource commitments stated in this document. This includes the obligation to bear the consequences for failure to perform as expected.



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1. Introduction

The Department of the Interior (DOI) spends a significant amount of its Information Technology (IT) budget to support a wide array of legacy systems in highly distributed computing environments. With relatively flat IT budgets over the past several years and with anticipated future budget reductions, DOI struggles to find sufficient funds to invest in new technologies needed to help the Bureaus and Offices meet today's operational requirements. Additionally, a long history of independent management and development of IT solutions further inhibited a collaborative approach to streamlining the IT infrastructure.

In January 2010, DOI chartered the "DOI Innovations and Efficiencies Team" (DIET) to overcome these challenges by proposing a series of technical recommendations on streamlining DOI's IT infrastructure. The team initiated a focused planning effort that included the implementation of "quick wins" to enable the redirection of funds to help support identified optimization efforts. This approach was designed to counteract the escalating IT total cost of ownership in the existing operational environment. However, DOI was concerned the timing and magnitude of these cost avoidances may not have been sufficient to provide the initial capital infusion necessary to pursue the scale of optimization needed.

In February 2010, the Office of Management and Budget (OMB) established the Federal Data Center Consolidation Initiative (FDCCI). FDCCI focuses on promoting Green IT, the reduction of data center operating costs, increasing IT security, and the use of more efficient computing platforms and technologies. DOI Leadership steadfastly supports the FDCCI focus, and is leading the culture change necessary for FDCCI success. The FDCCI announcement provided additional momentum for the DIET Infrastructure Consolidation project already underway. FDCCI became the major component within the DOI Infrastructure Consolidation project. Redesign of the infrastructure to be less complex and more efficient will significantly improve IT operations.

In December 2010, DOI issued Secretarial Order 3309, which eliminated all Bureau and Office Chief Information Officer (CIO) positions and consolidated all IT authority under the Department Office of the Chief Information Officer (OCIO). This resulted in the cultural changes necessary for FDCCI success by initiating a broad IT Transformation Strategy. The pre-existing IC projects that were originally managed under the DIET initiative continued, but were migrated to align with the overall DIET IT Transformation Strategy and renamed the Data Center Consolidation Initiative (DCCI).

In response to FDCCI, DOI plans to adopt a hybrid approach that considers and leverages industry best practices for decommissioning obsolete applications, consolidating data centers, virtualizing servers and storage, and increasing adoption of cloud computing. The investment funding needed for the five year period ending in fourth quarter, calendar year (CY) 2015, is still being determined based on developing component level plans for virtualization, site migration and hosting. While the department anticipates that these consolidations will yield cost avoidances and savings in the long-run, they will require immediate investments for which a funding strategy remains to be determined.

Realizing energy and facility savings will depend largely on the ability to adjust lease agreements to allow proper agency IT credits and reaching agreements regarding Overtime Utilities charges which incentivize investments in efficiencies. Real property savings and cost-avoidance at this point would be purely speculative; they are expected to be significantly delayed and off-set by retrofit investment requirements and rent inflation.



DOI will need to complete more rigorous validation before committing to specific financial targets, but is actively engaged in evaluating a government-wide Savings/Cost Avoidance Model as basis for financial projections. Identifying adequate and immediate funding to initiate the modernization is a challenge and will have an impact on the timeliness of DOI’s execution of consolidation plans. Major project targets of the DOI hybrid solution include:

- Developing a long range hosting strategy serving the geographically dispersed programs and users by the end of CY2012. These hosting needs may be met by a portfolio of in-sourced, out-sourced and federal partner service providers. The actual number of data centers required will be determined based on requirements captured by applications assessments and service portfolios established under this plan.
- Consolidating 95 existing data centers/server rooms/equipment closets by the end of CY2015; this is a 45% reduction from the beginning inventory identified in September 2010. Figure 1 below, identifies the distribution of consolidation targets by component organization and calendar year.

Component Organization	Calendar Year (CY)				Project Total
	2011	2012	2013	2014	
Bureau of Indian Affairs (BIA)	10	2			12
Bureau of Land Management (BLM)				46	46
Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE)		2			2
Bureau of Reclamation (BOR)	1			1	2
Fish and Wildlife Service (FWS)	1	1		3	5
National Business Center (NBC)				1	1
National Park Service (NPS)		3	3	8	14
Office of Historical Trust Accounting (OHTA)	1				1
Office of Surface Mining (OSM)	4	2	2		8
US Geological Survey (USGS)	1	1	2		4
DOI Annual Consolidation Commitment	18	11	7	59	95

Figure 1 Initial Consolidation Commitment (2010 Commitment Baseline)

- Achieving server virtualization rates of 1:4 for small offices, 1:6 for medium size offices and 1:10 for large data centers by the end of CY2015.

In summary, DOI is fully engaged to meet the goals of the FDCCI. DOI has already established and is implementing a common Active Directory service. The Department has implemented energy efficiency improvements and is in the process of sourcing a single, secure, cloud-based messaging service for all Interior employees in alignment with government “cloud first” objectives. DOI bureaus and offices have been making, and continue to make, excellent progress in virtualizing servers to reduce and optimize system management and delivery. Thin computing technologies have been implemented in several organizations with other organizations soon to follow. DOI has also decommissioned software, hardware, and storage assets from operational status.

2. Progress

To date, the department has consolidated 13 sites against a CY2012 target of 18 sites; DOI expects to achieve the aggregate consolidation target of 18 data centers by the end of CY2012. The following is a summary of infrastructure metrics, accomplishments and lessons-learned related to current planning and execution activities.

2.1 Infrastructure Metrics

A summary of infrastructure metrics related to these consolidations is provided in Figure 2 below:

		Decommissioned		
Data Centers/ Server Rooms/Equipment Closets Consolidated	SQFT exposed (Note 1)	Racks	Servers	Power (KwH/YR)
13	11,094	29	(Note 2)	205,700
<p><i>Note 1. Although consolidations exposed over 11,000 SQFT of data center space, the ability to realize cost savings or cost-avoidance related to this space is limited. This will be addressed in the cost model.</i></p> <p><i>Note 2. Component Organizations utilized technical refresh funding to purchase blade servers and virtualization software. This resulted in a temporary increase in the number of servers, but enables parallel implementation method to reduce operational impact, and will ultimately reduce the total number of physical servers over the project life-cycle</i></p>				

Figure 2 Summary of Infrastructure Metrics for Completed Consolidations

2.2 High Level Accomplishments

- Issued Secretarial Order 3309, completed OCIO reorganization, and published IT Transformation Strategy;
- Implemented initial purchasing and hiring controls;
- Designated Component-level DCCI Leads and Alternates and implemented Weekly Operational Level meetings between department and component level DCCI leaders;
- Completed inventory analysis and Concept of Operations (ConOps) presentation;
- Completed Project Charter and preliminary Project Management Office Resource Plan;
- Completed initial survey of internal hosting candidates;
- Completed pilot for Applications and Data Assessment Tool (ADAT), which will enable department to consistently/objectively evaluate applications for migration opportunities;

- Implemented Consolidation Commitment Change Control Process;
- Demonstrated capabilities and technical standards for virtualization and more efficient servers utilizing existing procurement vehicles;
- Recognized consolidation opportunity related to new facility, Bloomington, MN, enabling four component organizations to consolidate data center operations as part of the move;
- Implemented informal Integrated Project Team (IPT) to address Alaska opportunities;
- Implemented policy changes to enable System Center Configuration Manager (SCCM) to identify IT assets across the enterprise;
- Participated in FDCCI lead “Industry Day” to provide foundation for market studies supporting anticipated hosting service alternatives analysis;
- Explored hosting opportunities, service offerings and service-ready status with other Agencies; and
- Completed DOI’s first inter-agency host site integration (hosting another agency in a DOI facility).

2.3 Lessons-Learned and Templates Developed

- Completed sample templates for major plan elements:
 - Bureau Master Plan (BMP) & Site Consolidation Plans (SCP);
 - Initial Hosting Requirements Document, Hosting Capabilities/Capacity Document and Site Hosting Gap Analysis; and
 - Project Communications Guidance and Status reporting.
- Developed reusable small-site virtualization standards utilizing existing software and hardware for enterprise procurement vehicles. Demonstrated viability of virtualization technologies and implemented competing standards and solutions via applications and systems Change Advisory Boards (CAB).
- Gained better appreciation for complexities and constraints related to cross-component hosting and migration.
 - Exposed need to develop consistent business model and service profiles/portfolios;
 - Identified component organization assumptions for hosting alternatives/sourcing;
 - Validated assumptions about constraints related to diverse component security architectures and Certification & Accreditation (C&A) boundaries; and
 - Collected existing Service Portfolios and Service Level Agreements (SLAs).

- Developed understanding of data center cost drivers and limitations of diverse legacy accounting systems and processes. Developed internal cost/savings model and exposed challenges to realizing project savings and cost-avoidance;
- Recognized opportunities to apply lessons learned by aligning infrastructure technical refresh with DCCI needs at component organization level;
- Validated assumptions about telecommunications costs and circuit duplication, and established project-to-project connection with Telecommunications Consolidation team;
- Established Integrated Project Team (IPT) staffing/resource template; Implementing for development of Hosting Business Case Development and Acquisition Strategy; Proposed for remediation of inventory challenges in areas of Facilities, Power and Workforce data;
- Customer Relationship Management and Planning (CRMP) organization lead “listening sessions” conducted at customer locations across the United States, documented stakeholder concerns regarding IT Transformation and Data Center Consolidation. These concerns were considered in the development of plans;
- Established project budget and spending plan templates. Distributed “mandatory” table and metrics to facilitate aggregation of information through various levels of responsibility; and
- Identified need for additional project control processes including: Consolidation Validation/Audit, Application Action Plan and Application Waiver administration.



3. DOI Mission Overview

DOI protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

The Department manages the Nation's public lands and minerals, including providing access to public lands and the Outer Continental Shelf for renewable and conventional energy; is the steward of 20 percent of the Nation's lands including national parks, national wildlife refuges, and the public lands; is the largest supplier and manager of water in the 17 western states and a supplier of hydropower energy; and upholds Federal trust responsibilities to Indian tribes and Alaska Natives. It is responsible for migratory wildlife conservation; historic preservation; endangered species conservation; surface-mined lands protection and restoration; mapping, geological, hydrological, and biological science for the Nation; and financial and technical assistance for the insular areas.

DOI's programs cover a broad spectrum of activities that are performed by 14 component organizations, each with unique missions and sets of responsibilities. The Department workforce includes approximately 70,000 dedicated and skilled employees. Along with these employees, almost 280,000 volunteers contribute their time in support of bureau and office missions.



4. Purpose

The purpose of this plan is to define the context, vision, baseline, approach, objectives, goals, controls and guidance necessary for continued collaborative planning and execution of data center consolidation across the Department. It references component organization detailed, executable plans for near-term consolidation commitments. It also includes milestones for completing detailed plans for consolidation commitments scheduled for completion after the end of CY2012.

In addition, this project plan will:

- Inform key stakeholders how and when DOI expects to achieve the FDCCI goals and objectives;
- Provide the basis for formal executive support, prioritization and resourcing;
- Document anticipated benefits, impacts and outcomes;
- Document and address critical dependencies and risks, including mitigation of inventory and detailed plan gaps and anomalies; and
- Guide component organizations in both independent and collaborative data center consolidation planning and execution.

5. Scope

5.1 Initial Scope

Although the initial focus of the Department Master Plan (DMP) for the DCCI is on optimizing and consolidating the 95 data centers identified in the DOI initial consolidation commitment per the FDCCI, the DMP will consider consolidation opportunities for all data closets, server rooms and data centers that are owned, operated or are providing services to DOI and/or DOI component organizations. This scope includes all applications, IT infrastructure, data facilities, and data facility support infrastructure for these data centers.

- Per the “IT Transformation Strategy”, applications development and applications user support for certain mission applications are excluded from the scope of the IT Transformation Strategy and this DMP; however, the IT infrastructure supporting these mission applications is explicitly in scope. Therefore, all applications are subject to Inventory and Applications Assessment procedures specified under this DMP.
- IT Infrastructure includes Hardware (e.g. servers, storage, tape backup, equipment racks, networks) and Software (e.g. Operating Systems, Data Base Administration Systems, Geographic Information Systems, Office Automation Software), but **does not** include dedicated Telecommunications Equipment (e.g. Trusted Internet Connection [TIC] termination equipment, Wide Area Network [WAN] switches and firewalls, and telecommunications circuits). Consolidation of these infrastructure elements will be addressed by the Telecommunications/Circuit consolidation Project.
- Facility support infrastructure includes:
 - Primary and Backup power generation including generators and Uninterruptable Power Supplies (UPS);
 - Power Controls, Power Distribution Units (PDU) and Power Metering;
 - Environmental controls and monitoring, including: cooling, heating, and humidity;
 - Security Systems, Physical Access control and monitoring; and
 - Fire Suppression systems.
- Although Facility support infrastructure may not be managed or funded by component IT organizations, IT Infrastructure creates significant demand for them. A central premise for the DCCI is that sharing and improving utilization of these resources could present significant savings and cost-avoidance opportunities. The challenges related to the identification of these resources and the funding and management authorities related to them are may be addressed in the Project Risk Management Plan (RMP) and/or the Corrective Action Plan (CAP) associated with this project plan.
- The following are excluded from the scope of this project: Scientific Instruments, Supervisory Control and Data Acquisition (SCADA) systems not associated with data centers, and Operations & Maintenance (O&M) of the target operating environment.

- Although work force impacts and organizational design requirements can be reasonably anticipated as DCCI project impacts, these activities are not in scope for this DMP. These issues will be specifically addressed by the Work Force Planning Project Team, which operates under the governance of the overall IT Transformation Strategic Plan. The DCCI project will “inform” the Work Force Plan through deliverables including the operational “end state” or “To-Be” model, which will provide the basis for the appropriate work force planning.

This DMP includes a working Department Master Schedule (DMS), which will identify the approach and phase-based milestones for consolidation of specific sites. It will also identify shared dependencies and high level milestones necessary for coordinating activities and assigning resources across the component projects. Site Consolidation Plans (SCPs) will be developed by component organizations. The SCPs provide details regarding consolidation of specific data centers. The scope of activities included in the DCCI project is summarized in Figure 3 below.

Activity	Activity Description
Organization Alignment	Provide support for the creation, review, evaluation and alignment of the target organization to support the defined mission as it relates to IT service delivery.
Implement Governance Framework	Support the implementation of a data center consolidation governance framework, to include a performance measurement framework, a service management framework, and a quality management framework.
Data Center Assessment / Inventory	Document and evaluate data centers and data center components. Map planning targets of OMB/FDCCI.
Bureau/Office Engagement	Document the desired role (provider or consumer).
Asset Alignment	Develop consolidation criteria, identify data center consolidation candidates.
Solution Assessment	Develop a decision framework for identifying migration strategy, includes “Cloud First” approach.
Bureau/Office Planning	In conjunction with the Bureau/Office, develop formal plans for data center consolidation (decommission, migrate to virtual, lift and shift, defer and technical refresh, retain (OCIO approval))
Concept of Operations	Develop an IT data center concept of operations
Transition	Develop approach to transition to target operational model
Sustainment / Operations	Develop the sustainment approach for ongoing operations related to data center execution and IT service delivery
Operational Optimization	Develop a continual service improvement model for data center IT service delivery

Figure 3 Scope of Project Activities

5.2 Life-Cycle Scope

Upon completing analysis of infrastructure inventories and current component plans, DOI concludes that:

- Proceeding with these initial consolidation commitments will generate significant lessons learned which we can leverage for future consolidation and optimization;
- Current plans will expose opportunities to successfully demonstrate and validate consolidation enabling technologies and methodologies (e.g. server/storage virtualization, remote services/support, application migration/assessment/mapping, lift-and-shift logistics, savings/cost avoidance models, and service reimbursement models);
- Although current plans will enable DOI to realize reduction in the number of data centers, gross square-footage dedicated to data center operations, racks, servers and storage, there are a number of constraints and business issues which will delay or limit savings and cost-avoidance in the near-term; and
- Meeting the initial consolidation commitments will not be sufficient to attain the department “shared services” vision and necessary operating cost reductions.

Therefore, the Data Center Consolidation Initiative (DCCI) project will also establish objectives, priorities and processes for identifying, qualifying and realizing additional data center consolidation opportunities based on documented service requirements and constraints exposed through execution of the initial consolidation commitments.

6. Vision

The DCCI vision is to:

- Increase utilization of IT assets and support infrastructure, and implement operational efficiencies that will expose resources necessary to develop and ensure delivery of modern, agile services;
- Shift the IT program management focus from hardware and software assets to the services they enable, by documenting requirements from an Applications and Data perspective and demonstrating shared service performance;
- Reduce the environmental footprint for data center operations by increasing asset utilization, decreasing data center power consumption, implementing more efficient technologies, and facilitating equipment reuse and recycling; and
- Improve overall DOI IT security by enabling implementation of standard, best-in-class security practices across a smaller, more efficient, and more effective base of data centers.

The DOI IT Transformation Strategy vision is to modernize mission support with 21st Century IT. The Department of the Interior will achieve this vision by transforming IT to:

- Deliver uniform, modern, agile, and cost-effective service;
- Support the Department's diverse missions;
- Empower DOI employees to conduct their business using IT as a mission enabler, rather than inhibitor; and,
- Help responsibly steward the natural, cultural, and historic resources with which DOI has been entrusted by delivering and managing IT services that positively affect how the Department serves the American people.

The Data Center Consolidation Initiative (DCCI) will support the IT Transformation Strategy vision by creating a sound foundation for shared services.

7. Goals

DCCI project goals are aligned with goals identified in a number of department and government initiatives. This alignment is summarized in Figure 4 below. Strategic goals have been numbered below to illustrate the relationship to DCCI goals.

DCCI Goal		DOI Strategic Plan	DOI ITT	OMB RPP	OMB SSPP	OMB FDCCI Goal
1	Reduce Number of data centers by at least 45% by the end of CY2015	1, 2	4, 8	x		1,3
2	Reduce number of physical servers by 25% by the end of CY2015	1	1,2, 3, 4, 8			1,2,3,4
3	Reduce IT Infrastructure Operating Costs.	1	1,2,3			1,2,4
4	Reduce Gross Floor Space supporting Data Center Operations.	2		x		1
5	Reduce IT Power Consumption.	2	8			1,2,4
6	Install Power Meters in 100% of data centers anticipated for retention by the end of CY2015 [SSPP mandated goal]	2,3	8		x	1,2

Figure 4 DCCI Goal Analysis Matrix

7.1 DCCI Project Goals

The DCCI Project will support and achieve strategic goals by meeting the following specific project goals:

1. Reduce number of data centers by at least 45% by the end of CY 2015.
2. Reduce number of physical servers, through virtualization and decommissioning, by 25% by the end of CY 2015.
3. Reduce Department-wide IT Infrastructure Operating Costs. Specific targets will be established based on validation and adaptation of the recently introduced government-wide cost/savings model.
4. Reduce Gross Floor Space supporting Data Center operations. Specific targets will be developed in coordination with the federal real-property initiative and may be reported under the DCCI project. Reducing data center demand for floor space is not expected to have significant financial impact during the project life-cycle.
5. Reduce Data Center power consumption and cost; Specific goals will be proposed upon development of measurement mechanisms and models for both baseline and future consumption. As utility costs are typically bundled with rent in the prevailing lease agreements, the department may only realize power savings in the area of overtime utilities. Any savings in this area are expected to be offset by inflation.
6. Install Power meters in 100% of data centers anticipated for retention by the end of CY2015, to improve understanding of data center power consumption and facilitate future total cost of ownership accounting.

Although DOI may realize workforce impacts related to the DCCI, DOI does not have specific goals related to workforce reductions, as it would be premature to make projections in this area before completing definition of the final operating state.

7.2 DOI Strategic Plan Goals Supported

This DCCI plan contributes directly to the objectives for mission area #5, “Building a 21st Century DOI” articulated in the *DOI Strategic Plan for Fiscal Years 2011-2016*. Goals for mission area #5 are summarized below:

1. Improve the dependability and efficiency of Information Technology by implementing and sharing more efficient, modern and agile solutions;
2. Improve real property management, by reducing the footprint for data center operations and increasing utilization of retained data centers. DCCI informs the Real Property Plan (RPP);
3. Coordinate activities and implementing actions that support goals established under the Strategic Sustainability Performance Plan (SSPP), which was established in compliance with Executive Order 13514.

7.3 DOI IT Transformation Strategy Goals Supported

This DCCI supports the following goals established in the Department IT Transformation Strategic Plan:

1. Shift the focus of large-scale IT planning from the acquisition of physical hardware and software to the delivery of customer-oriented services whose value will be measured by their impact on the mission;
2. Establish a new purchasing model for IT by which Bureaus will buy services instead of infrastructure;
3. Meet or exceed customer expectations for reliability, accessibility and availability of information resources needed to achieve DOI missions;
4. Enhance how employees of the Department communicate and collaborate with each other, external stakeholders and the public;
5. Facilitate the availability and sharing of timely, relevant, and useable information for improved decision-making;
6. Offer flexible workplace solutions that allow employees to perform their duties from any location;
7. Improve the public’s experience with IT-driven services and products;
8. Deliver IT services in a more cost efficient and transparent manner; and
9. Support and promote the Department’s mission goals and high priority initiatives.



7.4 OMB Federal Data Center Consolidation Initiative (FDCCI) Goals Supported

The Data Center Consolidation Initiative, is driven by, and supports the OMB FDCCI goals:

1. Promote Green IT by reducing overall energy consumption (Improve IT asset and real estate utilization);
2. Reduce cost of data center hardware, software and operations;
3. Increase overall security posture for government; and,
4. Shift IT investments to more efficient platforms and technologies.

7.5 OMB “Cloud-First” Goals Supported

The DCCI aligns with the OMB “25-Point Implementation Plan to Reform Federal Information Technology Management” by including a “cloud first” perspective when assessing applications and data, when determining migration approach for data centers, and when soliciting and considering alternative service solutions. The team is also proposing a department “Design for the Cloud” (DFC) policy to guide future and early-stage applications Development, Maintenance and Enhancement (DME) efforts.

8. Plan Development Process

DOI remains engaged in a collaborative and iterative planning process with our component organizations and other federal agencies through the FDCCI Task Force. It has considered, and will continue to consider, reasonable alternatives for the Concept of Operations (ConOps), consolidation approaches and processes with organizations exercising governance over the current inventory of data centers. The planning also includes interaction with the FDCCI Task Force to share solutions across department/agency boundaries and will consider “lessons learned” from on-going internal consolidation efforts and the successful external consolidation efforts of large corporations, federal agencies, states and municipal government.

This plan was initially drafted by the DOI government lead for the Data Center Consolidation Initiative, based on analysis of strategic objectives and inventories and plans provided by component organizations. Figure 5, below, illustrates the planning and collaboration process.

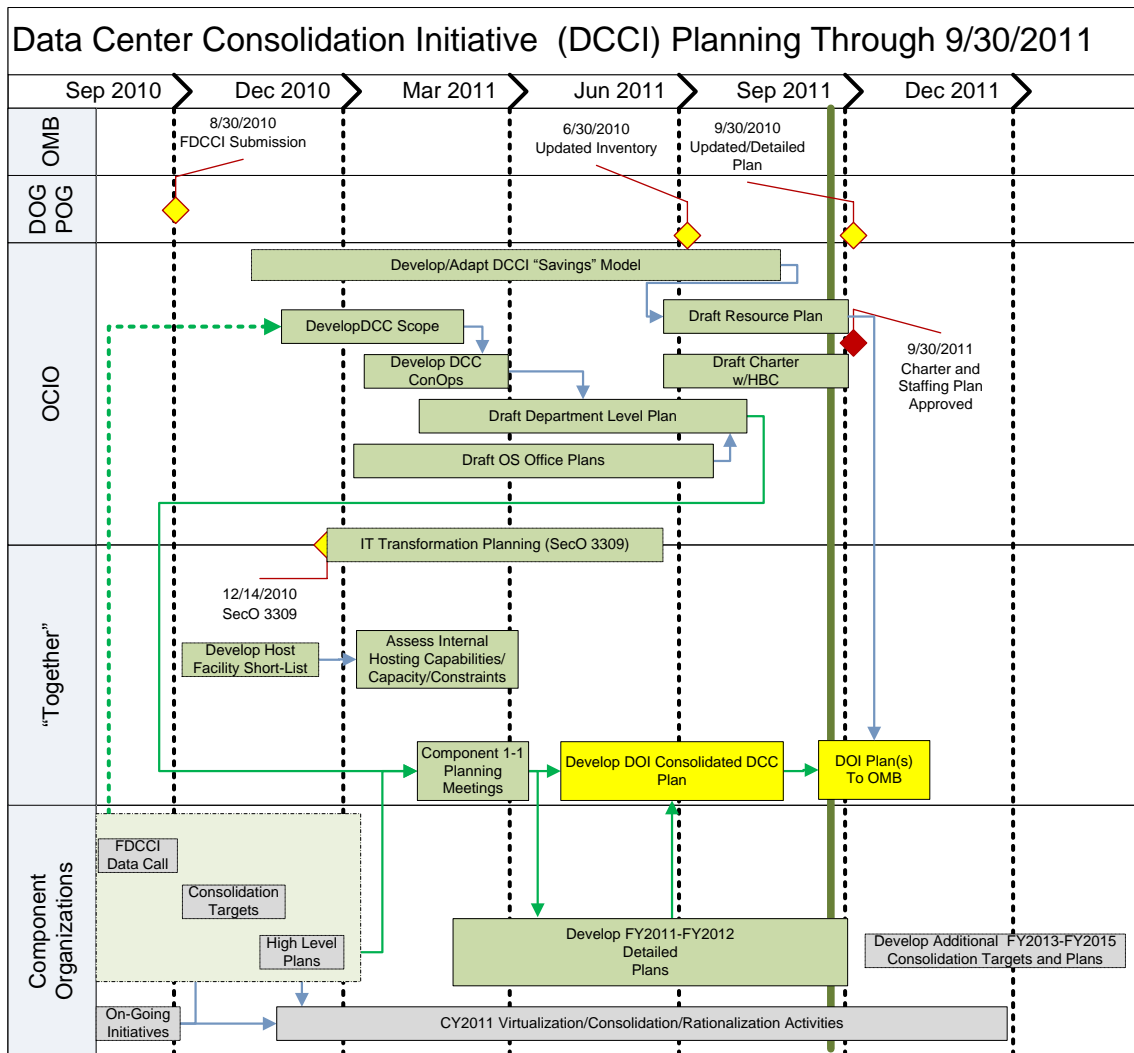


Figure 5 DCCI Planning and Collaboration Process/Schedule

The plan was subjected to a number of internal reviews by DCCI team members, selected component DCCI operational leads and the IT governance organization. In addition to these reviews, the plan was submitted for peer review by another agency through coordination with the FDCCI Task Force. The final plan has been revised incorporating the feedback provided through these reviews.

This plan contains significant detail for consolidation activities currently in execution or planned for completion before the end of CY2012. Rolling timelines are included that will provide similar detailed plans for activities scheduled for completion in the remaining project years.

This plan is supported by a formal charter submitted for collaborative review in August 2011. An initial Resource Plan was submitted with the charter and is awaiting fulfillment.



9. Overview of Plan and Planning Guidance

9.1 Plan Structure

This Department Master Plan (DMP) describes the Department of the Interior’s goals, approach and department-wide guidance related to data center consolidation. This plan references component level plans which provide addition detail. Collectively, these plans will articulate detailed and executable plans for consolidating a specific set of data centers/sites, and for developing the hosting capabilities necessary to meet the current and projected requirements for this set of data centers/sites. Because the responsibility for planning and executing the consolidation of sites currently resides with the operating component organization, this DMP will include component level documents by reference only. Bureau Master Plans and Site Consolidation plans are mandatory planning documents for component organizations, and are subject to review by the DCCI government lead. Hosting Plans are mandatory planning documents only for component organizations planning to host services in support of their internal consolidation plans or for external organizations.

9.2 Concurrent Execution and Recurring/Iterative Planning

Component organizations within DOI are continuing to execute pre-existing plans and activities that are consistent with the DCCI objectives and Initial Consolidation Commitments. Concurrently, DOI is completing enterprise level planning and is guiding and reviewing the development of DCCI program-specific plans, while seeking continuous improvement of baseline data.

Data center consolidation planning will be collaborative and iterative, and will continue through-out the project life-cycle. Near-term “plans” will be developed with a sufficient level of analysis and detail to ensure success. Mid-/Long-term “plans” will be goal based, contingent on validation of underlying assumptions, completion of alternatives analysis, governance approval at appropriate project phase-gates (go, no-go) and availability of resources. Mid-/Long-term plans will include credible milestones for delivering detailed/executable plans. Mid-term plans will be “informed” by lessons learned from earlier consolidation activities and industry/government best-practices.

9.3 Continual Improvement and Performance Measures

The Department of the Interior is currently focused on the following activities and performance metrics:

- Rationalizing applications and services (Decommissioning obsolete Applications);
- Increasing utilization:
 - Reducing the number and footprint of Data Centers through consolidation and Gross Square footage occupied by these activities; and
 - Virtualizing servers, applications and storage;
- Standardizing solutions and processes, which include more efficient technologies and platforms; and,
- Consolidating telecommunication services and network security services (not in scope for DCCI).



The objectives of these activities are to improve asset utilization and to set the conditions for achieving future operational efficiencies (cost savings and cost-avoidance) in the following areas:

- Rent & Utilities (lease terms)
- Overtime Utilities
- IT Infrastructure Support systems
- IT Hardware/Software acquisition, maintenance and licensing
- IT Workforce (not in scope for DCCI, but administered by IT Transformation)

The department expects that energy consumption will be reduced as an outcome of these activities, but does not expect to realize significant savings in this area.

Near-Term project performance metrics will be based on Key Performance Indicators (KPIs) related to the above activities that DOI can reasonably baseline and sustainably measure. As baseline data related to strategic outcomes is documented and validated, and mechanisms are established to sustainably evaluate metrics from the baseline, project performance measures will shift to KPIs that more appropriately reflect the strategic impact of the Data Center Consolidation Initiative. Specific project performance measures will be identified in the Communications and Performance Plans.

9.4 Department-wide Consolidation and Site Migration Approach

The approach to consolidation and site migration will be based on documented application requirements and constraints. The mechanism for identifying requirements and constraints will be the DOI prescribed Applications and Data Assessment Tool (ADAT).

Component organizations will identify the general approach to data center consolidation in their Bureau Master Plans, and will identify specific consolidation approaches in their Site Consolidation Plans.

DOI anticipates the following spectrum of consolidation approaches will be applied across the DCCI:

1. Immediately decommission obsolete applications.
2. Virtualize applications and optimize storage in-place and retain infrastructure in-place.
3. Virtualize applications and optimize storage in-place and prepare for migration and/or consolidation when appropriate hosting capability/capacity is service ready (components must identify conditions that must be met to qualify hosting service provider).
4. Migrate applications to optimized (virtualized) hosted environment (components must identify specific destination and business model for external service providers) :
 - a. DOI Host: Within component organization; OCIO managed service; other component;
 - b. Federal Partner (Primarily Identified through FDCCI Task Force Federal Market Place, may be identified through independent discussions with co-located agencies)

- c. Cloud Provider
 - i. Private (Specify Source)
 - ii. Public/Commercial (Specify Source or include acquisition strategy)
5. “Lift and Shift” (Component must identify specific destination and business model)
 - a. DOI Host: Within component organization; OCIO managed service; other component;
 - b. Federal Partner (Identified through FDCCI Task Force Federal Market Place)
 - c. Commercial/Out-sourced
6. Retire and archive applications in-place at planned End-of-Life (EOL). EOL must be scheduled within two fiscal years and development and O&M budgets must be adjusted to \$0 for the planned EOL year.

The Department government lead for the DCCI will review alternatives considered, and alternatives analysis by component organizations and confirm that they are optimal and consistent with the Vision/Goals/Objectives.

9.5 Meet Consolidation Commitments and Identify Additional Opportunities

DOI remains committed to consolidating the 95 data centers identified in its Initial Consolidation Commitment, and is implementing project controls to reinforce this commitment.

Because simply achieving the Initial Consolidation Commitments is not expected to be sufficient to meet DOI strategic and financial objectives, DOI will establish objectives, priorities and processes for identifying, qualifying and realizing additional data center consolidation opportunities. These opportunities are based on documented service requirements and constraints exposed through execution of the initial consolidation commitments and the ordinary course of delivering IT services.

The DCCI project will initially identify additional opportunities founded on geographic proximity of data centers, and will ultimately identify additional opportunities for consolidation and optimization derived from consistent department-wide Applications and Data Assessment Tool (ADAT).

- The geographic proximity of data centers has been evaluated from a Rough-Order-of-Magnitude perspective based on inventories, and are identified in the Baseline/“As-Is” section of this DMP.
- DOI has completed the pilot/proof-of-concept for the Applications and Data Assessment Tool (ADAT). The primary objective of this tool is to consistently and objectively identify which applications “Should”, “Shouldn’t” and “Can’t” be migrated on a site-by-site basis. ADAT will be addressed in section :
 - Establish the scope for initial data center consolidation activities;

- Provide a consistent and objective process for documenting and following-up on action plans that would permit components to convert applications that “Shouldn’t” be migrated into applications that “Should” be migrated;
- Provide a mechanism for documenting, and regularly reviewing, CIO approved waivers for applications that “Can’t” be migrated; and
- Identify applications that are the best candidates for shared services in the future.

9.6 Setting Consolidation and Hosting Priorities

The selection, sequencing and prioritization of sites for consolidation across the Department will be influenced by a number of factors including:

- Lease expirations/penalties;
- Urgent work force issues;
- Urgent/over-due life-cycle for major capital investments;
- Complexity; Risks; Business, Operational and Project;
- Operational readiness/demonstrated capability;
- Resources/capacity available; Capital investment requirements;
- Magnitude of savings or performance improvement opportunity;
- Unplanned natural and manmade events;

9.7 Component Site Consolidation Plans (SCPs)

Component organizations will establish a detailed Site Consolidation Plan (SCP) for each data center identified for consolidation. The PMO guidance requires the following elements be included in each site consolidation plan.

- Identification of processes and controls to be inherited from Department Master Plan;
- Identification of risks, issues and critical success factors/critical dependencies;
- Completed Mandatory Tables/Templates or a schedule for when missing elements will be completed;
- Overview of site organization and mission(s);
- Description of beginning or “As-Is” state;

- Description of migration site end or “To-Be” state“;
 - Equipment disposition/reuse/repurpose approach or needs
 - Retained infrastructure and applications
 - Facility disposition/reuse/repurpose approach or needs
 - Anticipated work requirements to be retained by skill or functional area
- Identification of migration approaches/alternatives considered;
- Identification and distribution of migration approaches for consolidation selected;
- Detailed plans for consolidation activities to be completed by the end of CY2012. These plans must include a schedule of completion dates for each of the 6 migration phases. For sites committed for consolidation after CY2012, components must develop a credible schedule of milestones that will result in a detailed site consolidation plan, and must include target dates for completing the first two migration phases; and
- Although component organizations are not required to develop a site consolidation plan for sites that are currently targeted for consolidation, they must establish completion dates for the first two migration phases.



10. Organization and Governance

10.1 Project Management Organization and Governance

DOI has assigned federal lead for the Data Center Consolidation Initiative (DCCI), and a certified Project Management Professional (PMP).

The project falls organizationally under the OCIO. Day-to-day monitoring and control of the project management staff resides with the Division Chief for Solutions Delivery Division (SDD), who reports to the Associate Deputy CIO for Service Delivery (SD). Figure 6 below illustrates the general organizational structure and significant reporting and advising lines for the DCCI project.

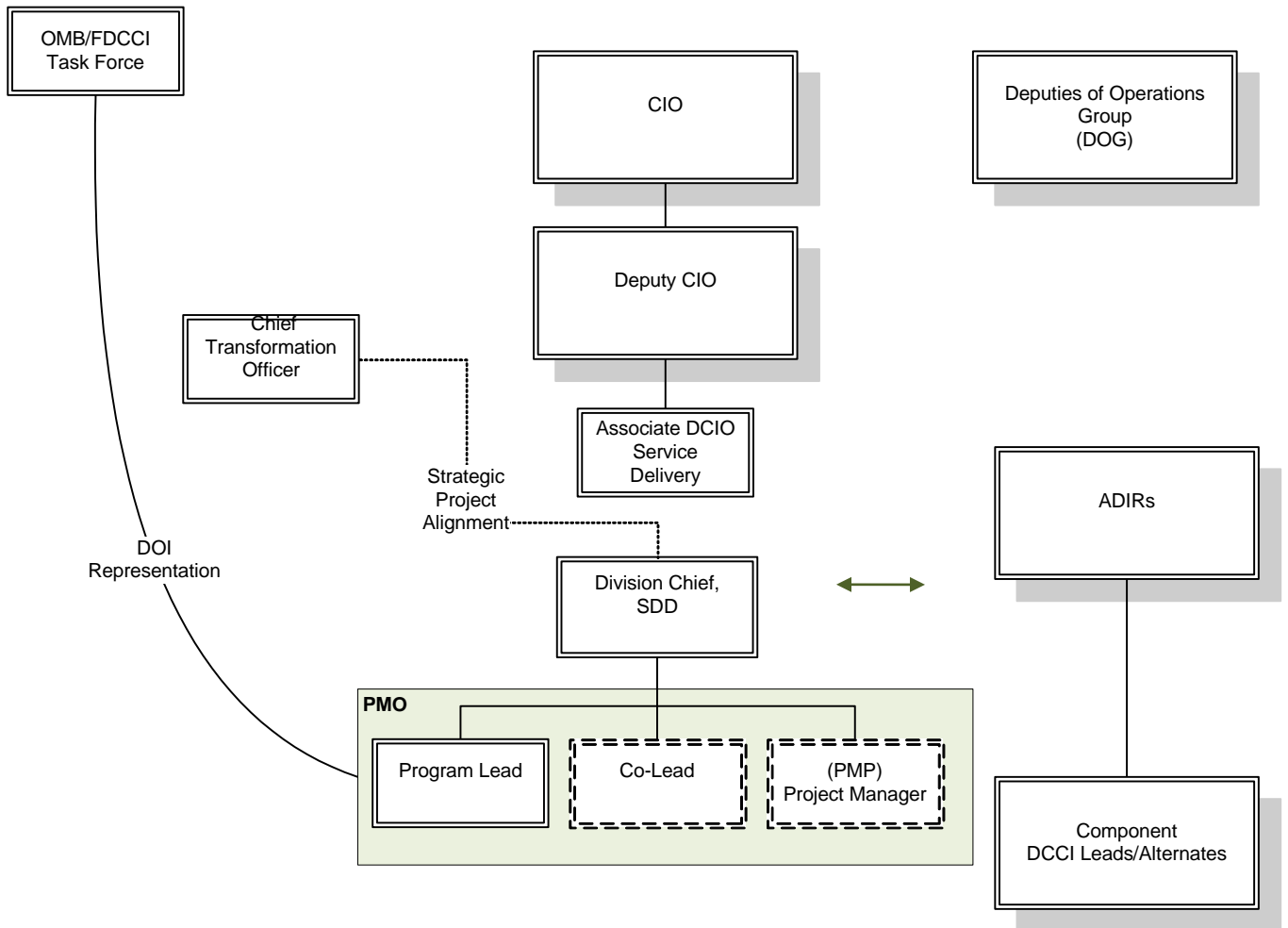


Figure 6 Project Organization and Lines of Communication

The Project Management Office (PMO) maintains direct contact with component organizations through the component DCCI leads/alternates assigned by the component ADIR, and represents the department on the FDCCI

Task Force. Document approval and decisions are primarily obtained through the organizational reporting structure. Performance management and risk management also follow the organizational reporting structure. Managers at each level of the OCIO organization actively inform and collaborate with appropriate component/department representatives and committees as part of the decision-making process. The project team anticipates component-level phase gates (go, no-go decisions) to occur before commencement of phase 3 (Migration Planning) or phase 4 (Migration Execution) of future site consolidations, and that the data center Program Manager will participate in the decision-making process for cross-component and cross-agency migrations.

The following subsections will identify the general organizations, relationships and IT governance structures related to this the project. The communications plan will identify the nature and mechanisms for communication between the various organizations and governance bodies identified in this section.

10.2 IT Governance and Organization

IT Governance within the Department of the Interior is principally administered by the Chief Information Officer (CIO). The authorities and management functions supporting IT governance changed significantly with the December 14, 2010, release of Secretarial Order 3309. Governance related policies contained in this order are summarized below:

- DOI will have only one individual with the title of Chief Information Officer (CIO) and only one individual with the title of Deputy Chief Information Officer (DCIO);
- The CIO will report to the Secretary of the Interior and receive administrative and management guidance from the Assistant Secretary for Policy, Management and Budget, as well as the Deputy Assistant Secretary for Technology, Information and Business Services;
- The CIO will assume oversight, management, ownership, and control of all Departmental IT Infrastructure assets (Including those operated for the benefit of component organizations);
- Bureaus having a CIO were required to establish a new position of Assistant Director, Information Resources (ADIR) to replace the CIO role. (This position reports to the bureau head, and represents their bureau on IT matters);
- Bureau heads, with advice and consent of the Department CIO, will select and remove individuals for the ADIR position;
- The CIO will establish at least three performance elements that define the major duties for the ADIR position; and
- CIO approval required for all IT procurement expenditures over the micro-purchase level.

These policies reinforce the role of the Department CIO, and promise to mitigate significant procedural and cultural challenges related to data center consolidation. They also introduce new challenges related to validating and implementing organizational changes, which will be addressed under the Risk Management Plan.

In February 2011, the organizational structure for the Office of the Chief Information Officer (OCIO) was modified to support the implementation of Secretarial Order 3309. The current organizational structure, as reflected in 112 DM 24, Organization, Policy, Management and Budget; Office of the Chief Information Officer, is summarized in Figure 7, below.

112 DM 24
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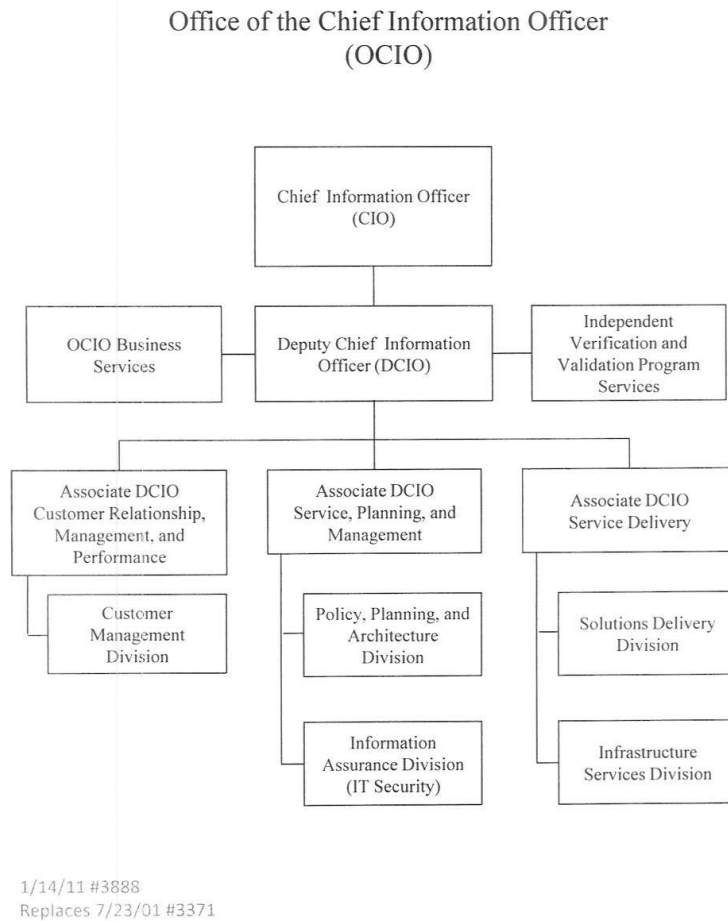


Figure 7 OCIO Organization

The OCIO organization structure continues to be “informed” by emerging IT Transformation plans and lessons learned. Therefore, governance for this project is under development and is expected to evolve.

10.3 Project Alignment Governance with the IT Transformation Strategy

The DCCI project is a component of the overall IT Transformation Strategy. It aligns with “Hosting Services”, which is one of the seven Initial Focus Areas for that plan. The Data Center Consolidation Initiative (DCCI) shares a charter with this focus area. The seven Initial Focus Areas are identified in Figure 8 below.

Initial Focus Area	Dependency
Hosting Services	Executive sponsor/partner. Shared Charter.
Unified Messaging	Successful implementation of this shared service creates foundation of trust based on demonstrated performance.
Telecommunications	Critical Dependency. Service levels, Speed, Latency, Throughput and Access
Account Management	Critical Dependency for cross-component access to infrastructure, applications and data.
Risk Management	Critical Dependency for cross-component access to infrastructure, applications and data.
Enterprise Service Desk (Help Desk)	Critical Dependency. Ensure consistent user experience for move, add, change and maintain activities.
Workplace Computing Services	Critical Dependency. Interoperability with Shared Services.

Figure 8 IT Transformation: Seven Initial Focus Areas

Because the DCCI project either supports, or is critically dependent on, activities and outcomes from the other six focus areas, the Chief Information Officer (CIO) appointed a Chief Transformation Officer, responsible for coordinating activities and dependencies across these related focus areas.

10.4 Policy, Goals and Objectives Governance

From a policy, goals and objectives perspective, the Data Center Consolidation Initiative (DCCI) is governed by the “Federal Data Center Consolidation Initiative “(FDCCI), the “DOI Strategic Plan for Fiscal Years 2011-2016”, and the Department IT Transformation Strategy in an environment of emerging fiscal austerity. The DCCI is enabled by IT governance established under Secretarial Order 3309 and ongoing realignment of IT organizations and resources. This plan also contributes to goals and objectives established under other significant government-wide initiatives which are linked to the DOI Strategic Plan.

The DCCI project supports collaborative and iterative planning and decision-making processes. Executive governance for component organizations is principally aligned with DOI’s mission-oriented organization structure. The DOI component organizations are aligned based on the following mission areas: Fish, Wildlife and Parks; Indian Affairs; Land and Minerals Management; Water and Science; and Insular Areas. A summary of the DOI organization structure is provided in Figure 9, below.

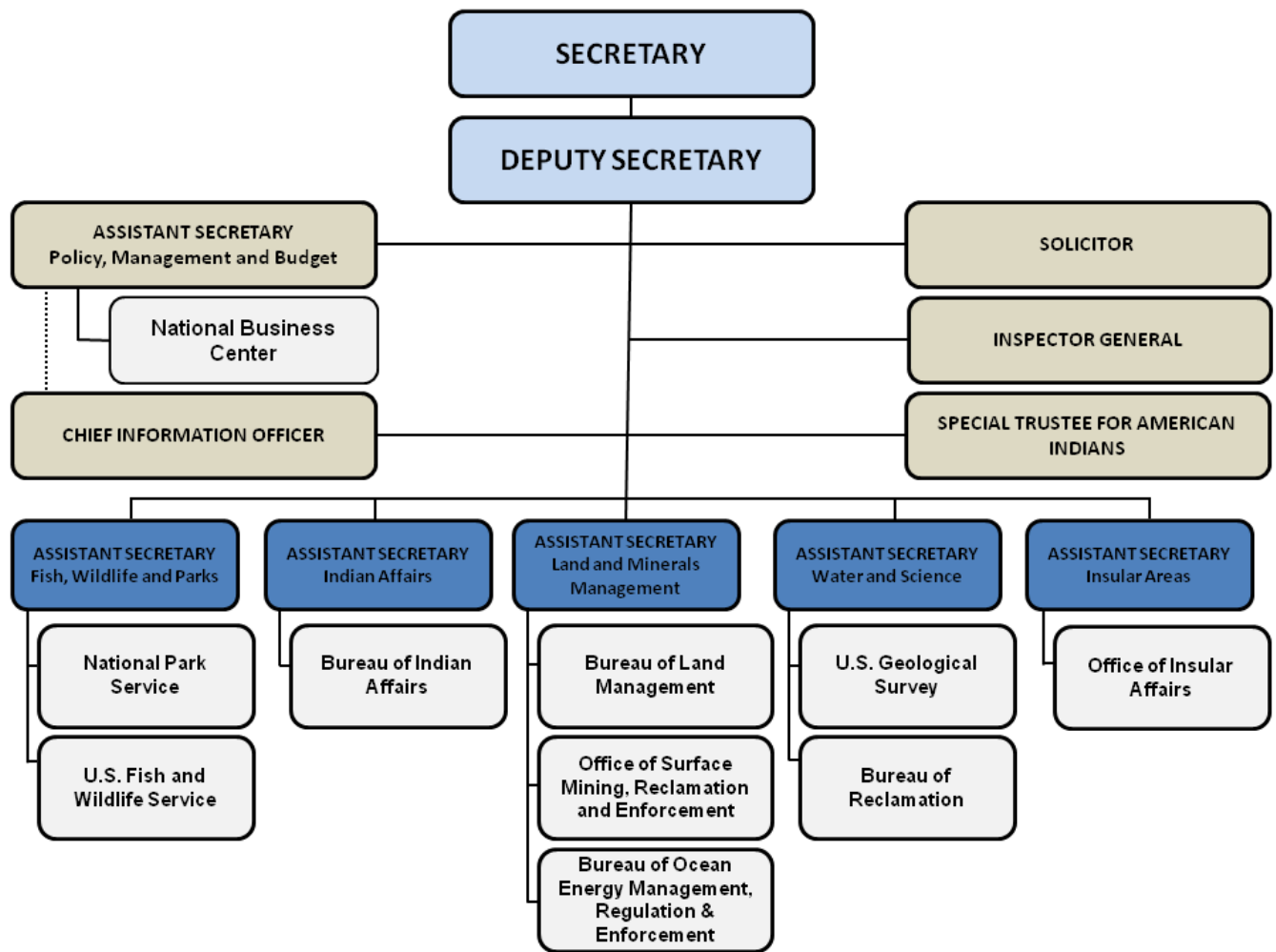


Figure 9 DOI Organization

Historically, component organizations enjoy significant autonomy within this organizational structure due to their foundation in the law, unique missions and direct access to program funding. Component organizations have implemented varying and unique organizational structures based on their mission and culture. These component organization structures will be identified in the Bureau Master Plans (BMPs), which are included in the DMP by reference only. The DOI organization structure is stable, except for the anticipated reorganization of the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) on or about October 1, 2011.

Additionally, the Department operates a number of peer and functional groups which collaborate on cross-organizational issues. Senior level governance and consensus crossing component organization lines, is primarily established in the Principles of Operations Group (POG), which comprises the Directors of each component organization, and the Deputies of Operations Group (DOG), which comprises the Deputy Director for Operations from each component organization. Figure 10 illustrates the flow of IT Governance in the cross-component domain.

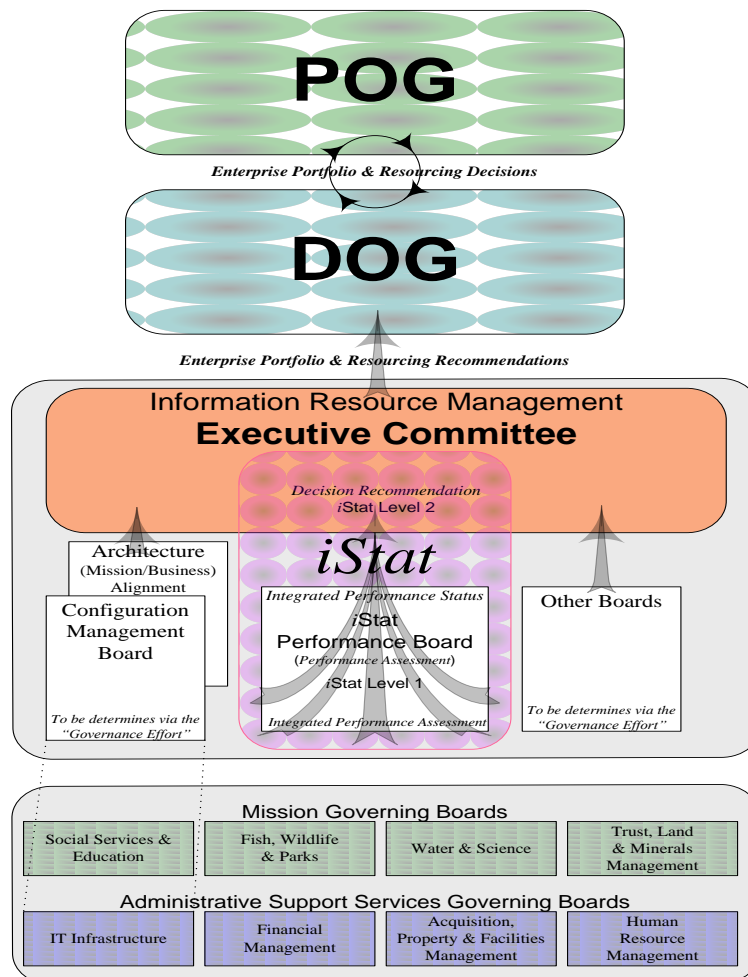


Figure 10 Cross-Component Governance

11. Department Baseline Profile

11.1 Infrastructure Baseline

DOI spends ~\$1.2B per year for IT, ~\$500M on Infrastructure (reference Exhibit 53/300). DOI’s baseline inventory of calendar year 2010 indicated that its 14 component organizations operated 403 data centers, based on the 2010 internal department definition (Contains a router/switch, and either more than three servers or a blade chassis). The DOI Final Plan of August 30, 2010 identified 210 of these as tiered data centers based on the understood definition for data center. The global distribution of this baseline inventory is identified in Figure 11 below:

Bureau	Alaska	CONUS	Pacific	Atlantic	Grand Total
NPS	5	108	3	1	117
USGS	2	93	2	1	98
BLM	4	48			52
BOR		46			46
FWS	3	34	1		38
BIA	2	13			15
OSM		10			10
NBC	1	8			9
BOEMRE	1	6			7
OS		4			4
SOL		3			3
OHTA		2			2
OST		1			1
OHA		1			1
Grand Total	18	377	6	2	403

Figure 11 Baseline Inventory (Includes sites with more than 3 servers, tiered and non-tiered)

Based on this distribution, DOI elected to focus department level analysis on data centers located in the Continental United States and Alaska. DOI will encourage and support component organizations with data centers in the Atlantic and Pacific regions in apply data center consolidation principles locally.

Figure 12 below, illustrates the geographic distribution of data centers within the continental United States.

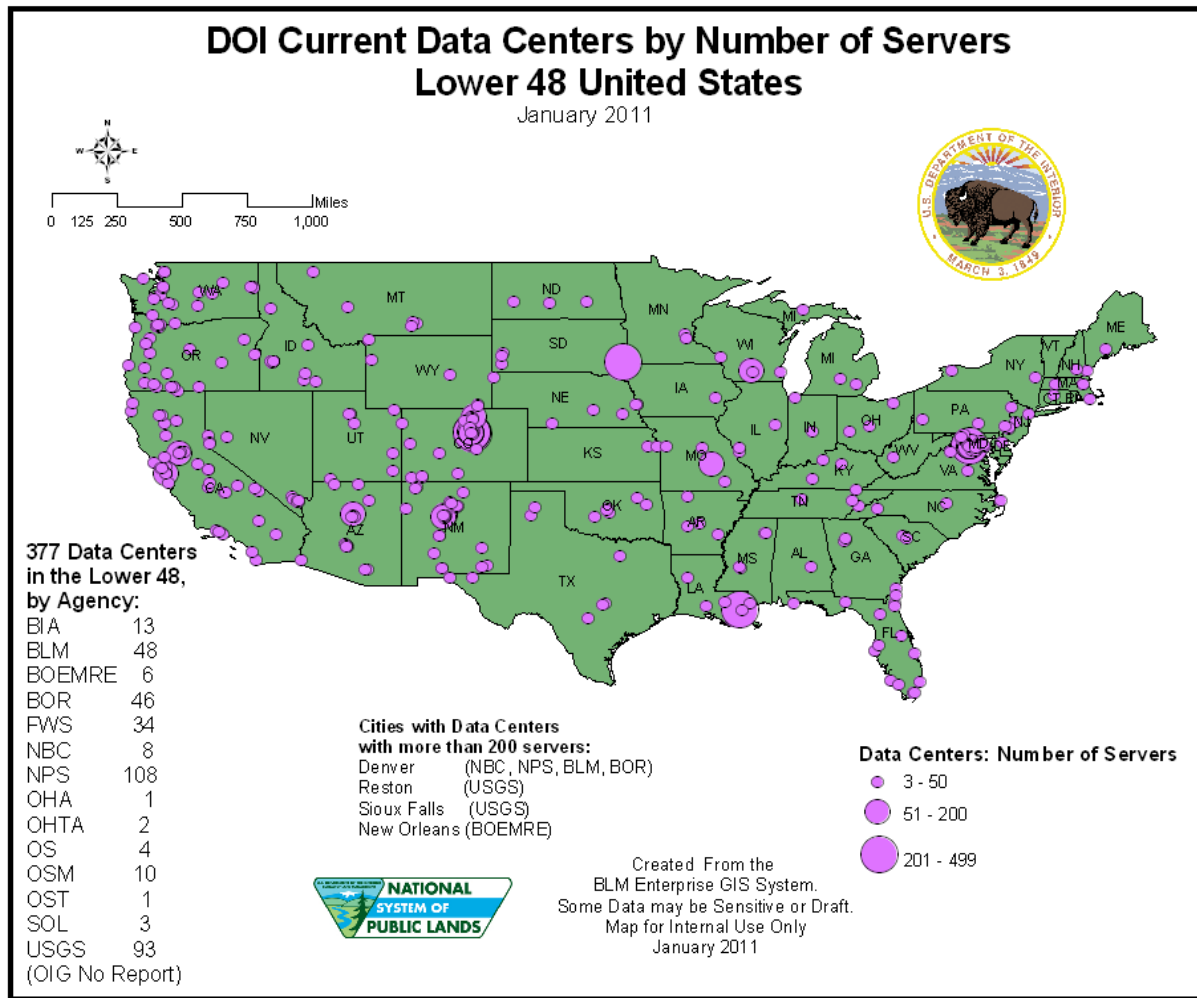


Figure 12 Geographic Distribution of Data Centers (More than 3 servers, tiered and non-tiered)

Almost 31% of DOI data centers and 66% of DOI servers are located within one hour driving distance of only eight metropolitan areas. Some of these data centers already share facilities and support infrastructure.

Although subsequent inventory efforts have changed and improved DOI confidence in its inventory, they have not significantly altered the conclusions drawn from the original baseline and analysis.

DOI believes that the top metropolitan areas may offer significant opportunity for data center consolidation, while introducing limited telecommunications cost/latency and leveraging the capabilities of the IT workforce concentrated in these areas, if it is able to:

- Share capability and capacity across component organization lines;
- Leverage best-in-class solutions;
- Improve resource utilization; and
- Eliminate unnecessary duplication.

11.2 Shared Services Baseline

DOI utilizes, operates or is implementing the following significant baseline services and standard systems:

- Telecommunications Network- The OCIO currently administers the global Wide-Area-Network (WAN) under the service name *Enterprise Services Network (ESN)*, and hopes to award and migrate services delivered under the General Services Administration (GSA) *NETWORX* contract. Connectivity to some areas is delivered by the Department of Defense (DoD);
- Data Centers- The OCIO currently operates two data centers (Denver, CO and Reston, VA);
- Shared Services- The National Business Center (NBC), a DOI component organization, offers and delivers information technology services to program customers from the DOI and other federal agencies, for example;
 - Infrastructure Hosting Services;
 - Time and Attendance- NBC delivers Time and Attendance services to many of the DOI component organizations utilize a standard, web-based time and attendance system, operating under the service name *Quicktime*;
 - Personnel and Payroll- NBC delivers personnel and payroll services to DOI under the service name *Federal Personnel and Payroll System (FPPS)*. This system is integrated with the Time and Attendance system;
- Financial Systems- DOI is completing a rolling implementation of a common financial management system, under the service name *Financial and Business Management System (FBMS)*. The implementation of FBMS will allow the department to realize the benefits of common processes, a common technology platform, integrated real-time data, and improved operational decision-making;
- Identity Management and Access Control- DOI is actively implementing universal identity standards required under Homeland Security Presidential Directive-12 (HSPD-12), and a common Active Directory service. These two initiatives will improve security by enabling two-factor authentication and encryption, and providing a pre-requisite service for realizing economies of scale through data center consolidation;
- Personnel Records- DOI component organizations are implementing on-line, electronic personnel records administration services, delivered by the Office of Personnel Management (OPM), under the service name "*Electronic Official Personnel Files*" (eOPF); and
- Travel Authorization and Vouchers- DOI has implemented the Travel Authorization and Voucher system operating under the service name *GOVTRIP*.

12. Proposed “End-State” for DCCI project

The specific “end state” for each data center will be identified in component organization plans, and will provide the foundation for validating consolidation of data centers. The general end-state for the DOI DCCI project is as follows:

- Unnecessary duplication in infrastructure is eliminated within the top metropolitan areas, and capability/capacity related to IT Infrastructure investments are shared across component organization lines;
- A competitive base of alternative IT service solutions (in-source, out-source, partnering) has been developed, from which component organizations can select services based on best value;
- Customers and IT managers have shifted from an IT Asset-based perspective to a Service-based perspective, and are enjoying shared, common services globally across the department, including:
 - Public-facing Web Hosting, enabling DOI to move public traffic to the DOI edge and better use internal bandwidth;
 - Intranet Collaboration Tools;
 - Infrastructure Hosting;
 - Single, secure Teleworker Remote Access capability/capacity;
 - Identity and Access management (independent, enabling project);
 - DOI Service/Help Desk (independent, enabling project);
 - Messaging Services (independent project);
 - Electronic Record/Document Management (independent project)
- DOI has identified and prioritized planning and implementation of additional high-value shared services opportunities from information collected by implementing (ADAT);
- Component organizations leverage best-in-class solutions; and
- Momentum for data center consolidation is exceeded by the momentum for Shared Service implementation within DOI.

13. Deliverables

13.1 Project Deliverables

The initial project deliverables by planning and/or consolidation phase:

Initial Analysis

1- Inventory

Accurate inventory Baseline and Improved Inventories (over life-cycle)

2- Application Mapping

Scope of Applications to migrate (Ref: ADAT)

Action plans for “Shouldn’t”... Submitted for approval and resourcing (Ref: ADAT)

Waivers for “Can’t”...Submitted to CIO for approval (Ref: ADAT)

3- Migration Planning

Applications Dependencies (Should’s)

Approved Site Consolidation Plans (SCP)

Service Catalog and Associated Service Level Agreements (SLAs)

Hosting Business Case

4- Migration Execution

Lessons Learned

Completed Work Activities (significant from work schedule)

Achieve Target “End-State”

5-Equipment Disposition (Repurpose)

Equipment Removal, Reuse/Repurpose

6- Facility Disposition (Repurpose)

Initial activities to transform facility to final disposition state underway.

13.2 Project Management Deliverables

The initial list of Project Management Deliverables is outlined below:



13.2.1 Standard Project initiation documents

13.2.2 Standard Project Controls

13.2.3 DCCI-Specific Project Controls

13.2.3.1 Application and Data Assessment Tool (ADAT)

13.2.3.2 Processes for Action Plans for Migrating “Shouldn’t” Applications

13.2.3.3 Process for Waivers and Documentation of “Can’t” Applications

13.2.3.4 Consolidation Commitment Change Control

13.2.3.5 Site Consolidation Validation/Audit Process



14. Major Milestones and Master Schedule

14.1 Major Milestones

Major milestones for completing initial planning and transitioning to enterprise-wide execution are represented in Figure 13 below:

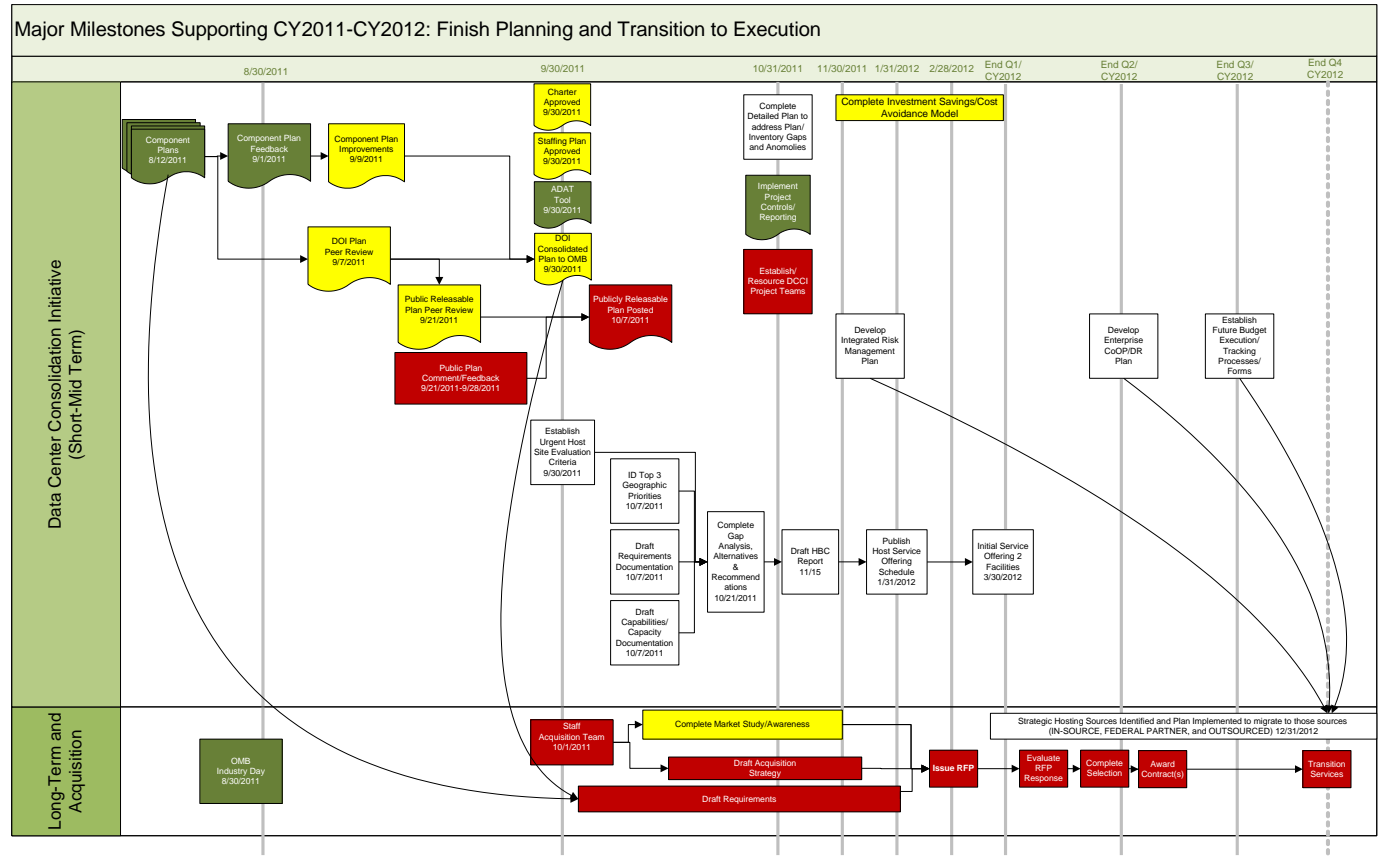


Figure 13 Major Planning Milestones (CY2011-CY2012)

14.2 Department Master Schedule (DMS)

The Department Master Schedule (DMS) will be maintained by the PMO on the DCCI SharePoint portal, and will be consistent with the definitions contained in the Project Controls section. The master schedule components will be maintained in separate files based on the major Work Breakdown Structure (WBS) headings: Site Migration, Host Site Integration, CoOP/DR, Service Source Development, and the PMO plan which will also include significant milestones necessary to coordinate and enable the other plans. Additional sub-plans may be included at the discretion of the project managers assigned to major WBS areas.

14.1.3 CoOP/DR Master Plan

Anticipated major milestones related to the CoOP/DR Master Plan will initially be maintained in the department PMO master plan. Once developed, the CoOP/DR Master Plan will become the source document for milestones related to this element of the WBS. The CoOP/DR master plan will be developed upon staffing of this team and completion of hosting business case, and documentation of DOI hosting requirements.

14.1.4 Service Source Development Master Plan

Anticipated major milestones related to the Service Source Development Master Plan will initially be maintained in the department PMO master plan, and will be coordinated with the activities of the Hosting Business Case. Once developed, the Service Source Development Master Plan will become the source document for milestones related to this element of the WBS. The Service Source Development Master Plan will be developed upon staffing of this team, completion of the hosting business case, and documentation of DOI hosting requirements. Initial activities for this plan will include: Completing fair market studies, developing a service acquisition strategy and supporting plans, formalizing engagements with other federal agencies to determine hosting capabilities and service ready offerings, coordinating with the FDCCI task force to develop the Federal Marketplace.

14. 1.5 PMO Master Plan

The PMO Master Plan is under development based on review of component plans. This master plan will identify department level milestones and other activities sufficient to monitor, coordinate and enable data center consolidation across the Department. This portion of the plan will include:

- Project/Project Management Deliverables identified in the department master plan;
- Schedule for filling inventory/plan gaps and anomalies;
- Key Department level dependencies related to component plans;
- Key milestones from Site Migration, Host Site Integration, CoOP/DR and Service Source Development Master Plans; and
- Timeline for considering additional opportunities: Metropolitan Areas, Event Driven Opportunities, and Shared Services Opportunities.

15. Resources and Staffing

The DCCI Project Management Office (PMO) will initially be staffed with a government lead from the OCIO organization, a co-lead on detail from one of the large Bureaus, and a certified Project Manager. The organization chart for this project is provided in the Organization and Governance section of this document. Staffing requirements for the PMO are expected to change as the supporting data and plans are further developed, and the PMO staffing requirements shift to performance of “shared” activities, project oversight, monitoring/reporting and governance.

15.1 Summary of Initial Department-Level Project Resource Requirements

A summary of the initial project resource requirements is provided in figure 15, below.

General Description	Discussion	Activity Duration	DCC Lead and Oversight	Hosting Business Case	Acquisition Strategy	Total	Comments
			9/1/2011-12/31/2015	9/1/2011-11/15/2011	9/1/2011-12/31/2012		
Department Site Migration Lead (GS 14/15)	Full-Time through completion of policies, standards and processes (9/1/2011-6/30/2015); Quarter Time for monitoring, compliance and reporting thereafter		1			1.0	
Department Host Site Integration Lead (GS 14/15)	Full-Time through completion of policies, standards and processes (9/1/2011-6/30/2013); Quarter Time for monitoring, compliance and reporting thereafter		1			1.0	
Department CoOP/DR Lead (GS 14/15)	Full-Time through completion of Department CoOP/DRPlan(10/1/2011-6/30/2012)		1			1.0	
Department Hosting Business Case Team Lead (GS-14/15)	Full Time through Submission of Business Case and Recommendations for OCIO approval (9/1/2011 through 11/15/2011)			1		1.0	
Functional: Facilities Senior Subject Matter Experts: Consolidation/Transformation, Data Center Management/Hosting, and Service/Applications Integration	Integrated Project Team Member: Provide Functional Area support and advise for Facilities Functional Area. Complete detailed facilities planning and Coordination (especially with Electronic stewardship metering task and Federal Real Property Initiative)		1			1.0	
Business/Process Lead and Experts in IT Service Delivery and Cost/Business Modeling	One full time and two half time through plan completion (9/1/2011 through 11/15/2011)			2		2.0	
Technical Writer (GS 9/11) Budget Analyst (Execution)/Performance Analyst (GS 9/11)	two full time and one quarter time through plan completion (9/1/2011 through 11/15/2011)			2.25		2.3	
Acquisition Team Lead (GS-14/15) Contracting Officer (GS 12/13/14)	Full-Time through completion of Hosting Business case (9/15/2011-11/15/2011); Retained at .2 FTE Level of effort through June 2012 to support DCC overall		0.2	1		1.0	Aggregate requirement of 1 across DCC and HBC
Integrated Project Team Advise, Support and Validation	1 FTE 10/1/2011- 2015		0.2			0.2	
Bureau/Office DCC Leader/Coordinator	Full Time through Contract Award and Transition (9/30/2011)				1	1.0	
Functions represented Include: Budget, Contracting/Acquisition, Facilities, Solicitor, Workforce/Human Capital, Technical (IT Security, Networking, Server, Storage)	Participate in weekly communications/coordination meetings and lead Bureau/Office planning and execution of Data Center Consolidation				0.25		
	DCC .1 - .2 each, with surges for key milestones: Quarterly Plan and Progress Reviews. Acquisition milestones include Final Requirements, Final RFI, Final RFP, Source Selection Review						
			Primary and Alternate Project Manager assigned/maintained by each organization for duration of project				
			Advising, Validate, Contribute based upon Milestones below				
		Total	4.4	6.25	1.25	11.5	

Figure 15 Initial DCCI PMO Resources Required (In addition to Government Lead, Co-lead and PM)

15.2 Summary of Roles and Responsibilities

Project roles and responsibilities are identified in figure 16 below:

Role	Responsibilities
Stakeholders (Commissioner, Directorates, Programs)	<ul style="list-style-type: none"> • As the executives from each organization impacted by the project, stakeholders authorize their organization’s resources required to successfully complete this project • Actively participates in progress reviews to ensure critical project information is communicated to stakeholder organizations • Facilitate resolution of project issues in stakeholder organizations • Define business services and performance acceptance criteria • Authorize project funding outlined in each consolidation project plan
Sponsor(s) ADIR	<ul style="list-style-type: none"> • Present project results to major stakeholders and other executive bodies. • Facilitate resolution of DOI and Reclamation issues outside of the project • Define acceptance criteria
Configuration Management	<ul style="list-style-type: none"> • Receives all approved project deliverables and stores them in document repository based on NARA standard policies and procedures • Facilitates approval of RFC to migrate approved solution to Production • Establish Service Level Agreements (SLAs)
Project Manager	<ul style="list-style-type: none"> • Monitor and control the scope, quality, budget, risks and schedule • Manage the overall Reclamation project plan • Coordinate with each data center site lead • Define and manage project risks • Lead, coordinate and facilitate the team’s planning and execution of tasks and deliverables • Ensure appropriately skilled project participants are available when needed • Prepare and present project reports • Facilitate resolution of issues and elevation of risks • Monitor acquisitions • Work with other Bureau leads as required or requested

Role	Responsibilities
<p>All project participants</p>	<ul style="list-style-type: none"> ▪ Complete assigned tasks and deliverables based on agreed schedule. ▪ Act as Subject Matter Expert for appropriate organizational function ▪ Provide status updates including issues & risks ▪ Attend all scheduled meetings ▪ Communicate openly and assertively ▪ Respect opinions of others ▪ Agree to work toward consensus ▪ Commit to scope of the project
<p>Security</p>	<ul style="list-style-type: none"> • Analyze systems to ensure DOI security standards have been maintained • Evaluate any changes to C&A boundaries as a result of consolidation

Figure 16 Project Roles and Responsibilities

15.3 Project Budget

The project budget will be prepared based on the approved charter, approved resource plans, completion/review of component organization plans, and adaptation/implementation of the government-wide savings/cost-avoidance model. A copy of the template provided to component organizations to facilitate aggregation of budget information across all levels of planning is included in Figure 17, below.

Budget Class	FY2011					FY2012	FY2013	FY2014	FY2015	5 Year Total
	Q1	Q2	Q3	Q4	Total					
1100-1300 Salary and Benefits										
2100 Travel										
2200 Transportation of Things										
2300 Rent & Utilities										
2300 Communications										
2400 Printing and Reproduction										
2500 Contractual Services										
2500 Training										
2600 Supplies and Materials										
3100 Equipment & Software										
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Figure 17 Budget Planning Template

16. Risks

This section identifies the project Risks. Risks are defined as uncertain events that if they occur will impact the DCCI project.

DOI initiated risk management planning with component organization early in the planning process, and is assessing risks identified in plans received from component organizations. The DOI DCCI project risk management planning and mitigation efforts will address overall risks and specific data, planning and execution risks as they relate to each objective and component plan.

The DCCI PMO will develop a risk management matrix based on risks identified by component organizations, PMO and executive leadership. The DCCI PMO will then propose priorities and sequencing for mitigating shared risks with appropriate stakeholders, and will lead the development of the Risk Management Plan for these common or enterprise risks in collaboration with component organizations.

Component DCCI Leads will develop Risk Management plans for component or site specific risks.

An overview of the DOI risk management process is identified in Figure 18, below:



Figure 18 Risk Management Process

All Risk Management plans will use DOI templates, and will include the risk category, risk title/description, probability of occurrence, impact of occurrence and mitigation plan. The DCCI PMO has established risk categories based on initial review of component level plans. Figure 19, below identifies Risks by major category as is followed by a narrative description of each.

	RISK CATEGORY	Risks
1	RESOURCE	<ul style="list-style-type: none"> • Funding and ability to re-invest savings/cost-avoidance • Staffing
2	TECHNICAL	<ul style="list-style-type: none"> • Telecommunications • Remote Sites • Target Architecture • Application • Tools • Technical Skills and Knowledge retention and succession
3	ORGANIZATIONAL	<ul style="list-style-type: none"> • Business Model • Political/Cultural • Organizational Change • Experience & History of Success • Accounting & Budget Process
4	HOSTING	<ul style="list-style-type: none"> • Hosting Service Requirements (Current and Forecasted) • Data Center Hosting Options • Data Center Condition • Target Operating Environment
5	ACQUISITION	<ul style="list-style-type: none"> • Legal Issues • Single Sourcing • Scheduling • Procurement
6	PRIORITY & DEPENDENCY	<ul style="list-style-type: none"> • Competing Transformation Initiatives • Bureau/Mission Priorities • Circuit Consolidation
7	SECURITY	<ul style="list-style-type: none"> • Certification and Accreditation Boundary • Data Security (Confidentiality, Integrity, Accessibility) • Reduced Points of Failure • CoOP/DR
8	INVENTORY	<ul style="list-style-type: none"> • Enterprise Asset Management • Inventory Data Quality
9	REGULATORY & LEGAL	<ul style="list-style-type: none"> • Procurement [acquisition strategy] • Contract Inventory and Assessment • Appropriations • Workforce • Facility
10	PROJECT MANAGEMENT	<ul style="list-style-type: none"> • Project Plans

Figure 19 Risks by Category



17. Cost-Benefit Analysis

17.1 Quantitative Analysis: Investment, Cost-Avoidance and Savings

17.1.1 Investment, Savings and Cost-Avoidance Models

The Department of the Interior has explored a number of options for estimating savings, cost-avoidance and investment costs related to the Data Center Consolidation Initiative. There have been three approaches to development of costing models: Industry-advised, DOI Custom, and a draft government-wide Model.

17.1.1.1 Industry-Advised Model

During initial planning for the FDCCI, the Department engaged a consulting team which included representation from one of the major accounting and auditing firms, and team members with a current experience working with industry data centers. The model this team developed was based largely on initial DOI inventories and commercial data center norms per advice of the consulting team. This model was the foundation for the financial projections provided in the DOI plan submitted to OMB on August 30, 2010. In this plan, DOI identified a number of concerns regarding foundation data, scope/projections related to this model, and recognized a need to complete a more rigorous analysis before establishing project baselines or commitments. DOI also recognized and reported significant issues that would delay or prevent realized savings in the areas of rents, utilities and workforce.

17.1.1.2 DOI Custom Model

Shortly after submitting the August 30, 2010 plan, DOI sought the assistance of another major accounting firm with expertise in the technology sector. This team was engaged to develop a model which would apply lessons learned from the previous modeling effort, include targeted auditing of underlying data, and develop a cost model that was more “informed” by DOI policies, operating norms and business process. Project savings under this model did not include potential work force savings, and were not off-set by component capital investment requirements which would be developed in component organization plans. This model indicated that annual cost savings related to consolidating the 95 sites identified in the department’s Initial Consolidation Commitment are expected to be nullified by inflationary factors by the end of FY2016, even without considering component level investment requirements. Therefore, consistent with the project scope and charter, DOI must establish objectives and processes for identifying and prioritizing additional opportunities for data center consolidation to support program goals. The project team will recommend consideration of net savings potential when setting priorities for additional data center consolidations.

17.1.1.3 Beta Government-wide Model

As the Department was initiating the internal review process for the DOI Custom model, the FDCCI Task Force began discussing a government-wide cost model. This model was to allow the federal government to consistently evaluate and present estimated savings, cost-avoidance and investment costs. This model was also to address task force concerns regarding consistent modeling, base-lining, and forecasting of consumption and cost data for power, facilities and work force areas. DOI hopes to adapt the OMB sponsored model based on lessons learned from internal modeling efforts.

17.1.2 Investment, Savings and Cost-Avoidance Estimates

The Department conducted an initial review of the OMB model, concurrent with development of Data Center Consolidation plans due on September 30, 2011, but was unable to complete the review and adaptation process

before the plan due date. Additionally, the department recognized a number of significant gaps and anomalies in supporting data and component plans. Therefore, submission of the financial projections, and cost-benefit analysis will be addressed as a future deliverable in the Department Master Schedule (DMS). A summary of the sequence of actions supporting this key deliverable is provided below:

- Address Challenges, Gaps and Anomalies in Data: Hardware; Software (Applications); Facilities; Power; Workforce;
- Address Challenges, Gaps and Anomalies in Component Plans;
- Validate Model Assumptions and recommend assumption revisions;
- Consider proposed variables and recommend revised variables based on demonstrated progress/experience and fair market studies. This is a cross-functional requirement which must be coordinated with Facilities, Acquisition and Budget functions, as well as the IT Transformation Telecommunications and Work Force teams.
- Validate calculations (formulas & logic)
- Adapt model to the DOI-unique factors not currently reflected, including:
 - Reimbursed Services (non-appropriated funding sources)
 - Owned, non-marketable facilities (e.g. National Parks, National Monuments, Dams)
 - Customer and Beneficiary owned equipment
 - Lease Terms
 - life-cycle, expiration dates
 - Termination Costs
 - Investments required to “return to marketable condition”
 - Labor Agreements/Office of Personnel Management (OPM) prescribed processes
 - Impacts of asset depreciation, accelerated depreciation and disposition costs (e.g. complying with security policy regarding “wiping” storage media)
 - DOI proven technical solutions, standards and prevailing procurement contracts.
- Align model results with budgeting process: Investment Controls (CPIC) and operation budgets.

DOI articulated concerns regarding anticipated savings in the areas of real estate, power and workforce in the August 30, 2010 plan. Follow-on analysis and consideration of cost models have reinforced these initial concerns and exposed additional concerns. These concerns will be addressed in the Risk Management Plan (RMP).

17.2 Qualitative Benefits:

In addition to the anticipated quantitative benefits, the DCCI project anticipates qualitative benefits consistent with vision, goals and objectives of the DOI Strategic Plan, DOI IT Strategic Plan, and the Federal Data Center Consolidation Initiative (FDCCI). A summary of these qualitative benefits is below:

- Shift the focus of large-scale IT planning from the acquisition of physical hardware and software to the delivery of customer-oriented services whose value will be measured by their impact on the mission;
- Establish a new purchasing model for IT by which bureaus will buy services instead of infrastructure;
- Meet or exceed customer expectations for reliability, accessibility and availability of information resources needed to achieve its missions;
- Enhance how employees of the Department communicate and collaborate with each other, external stakeholders and the public;
- Facilitate the availability and sharing of timely, relevant, and useable information for improved decision-making;
- Offer flexible workplace solutions that allow employees to perform their duties from any location;
- Improve the public's experience with IT-driven services and products;
- Deliver IT services in a more cost efficient and transparent manner; and
- Support and promote the Department's mission goals and high priority initiatives.

18. Project Controls

18.1 Standard Project Controls

18.1.1 Work Breakdown Structure (WBS)

The complete Work Breakdown Structure (WBS) is being developed based on lessons learned from component level plans. On completion, the WBS will be maintained on the DCCI project portal.

The top-level WBS will be consistent with the endorsed Concept of Operations (ConOps).

A. Site Migration

- A.1. Sites committed for consolidation
- A.2. Sites discovered in recent inventories, and under consideration consolidation
- A.3. Additional sites being considered for consolidation
- A.4. Sites to re-evaluate based on geography, changes in constraints, application assessment

B. Host Site Integration

C. Continuity of Operations (CoOP)/Disaster Recovery (DR)

D. Service Source Selection/Hosting Services Development (Includes identification and qualification of internal hosting sites)

E. Project Management Office

18.1.2 Project Phasing

OMB has prescribed 6 phases for review of consolidation opportunities:

1. Inventory
2. Applications Mapping
3. Migration Planning
4. Migration Execution
5. Data Center Decommissioning/Equipment Disposition
6. Facility Closing (depending on residual requirements)

All DOI plans will adopt this top-level phasing for planning site migration and reporting progress and performance against project scorecard objectives.

Component organizations may implement additional phasing based on unique organizational requirements and constraints, but must map project activities to the prescribed phasing and consistently report migration progress per the prescribed phasing.

18.1.3 Project Master Schedule

The project schedule is described in the Project Milestones, Department Master Schedule (DMS) and schedules contained in component organization plans. DMS structure will be consistent with the WBS. The DMS will be updated weekly to reflect percent (%) complete and actual start and finish dates. It will be baselined when approval of this Project Plan is received.

Percent complete is based on:

- 0% until work is started.
- 50% when task is started.
- 95% when task and related deliverable are complete and circulated for approval.
- 100% when deliverable approval is received and document is submitted to Configuration Management (CM).

18.2 DCCI Specific Controls

18.2.1 Privacy and Security

All application owners will be required to validate the Privacy Information Assessments (PIAs) for applications and submit any required System of Record Notices (SORNs).

Pre-decisional data and plans will be labeled as such to prevent unnecessary public and employee confusion.

18.2.2 Consolidation Commitment Change Control

The DOI CIO issued a policy describing the process for “Consolidation Commitment Change Control”. If in the course of planning and assessment, DOI exposes issues or challenges which justify reconsideration of these commitments, DOI shall initiate a formal Commitment Change Request (CCR) seeking Chief Information Officer (CIO) approval for such change.

18.2.3 Application and Data Assessment Tool (ADAT)

DOI has completed the pilot/proof-of-concept for the ADAT. The objective of this tool is to consistently and objectively identify which applications “Should”, “Shouldn’t” and “Can’t” be migrated on a site by site basis. Additionally, it provides a mechanism for documenting and following up on action plans necessary to convert “Shouldn’t” applications into “Should” applications, and for documenting periodically reviewing CIO approved waivers for “Can’t” applications. Figure 20, below, illustrates the context of employment for ADAT.

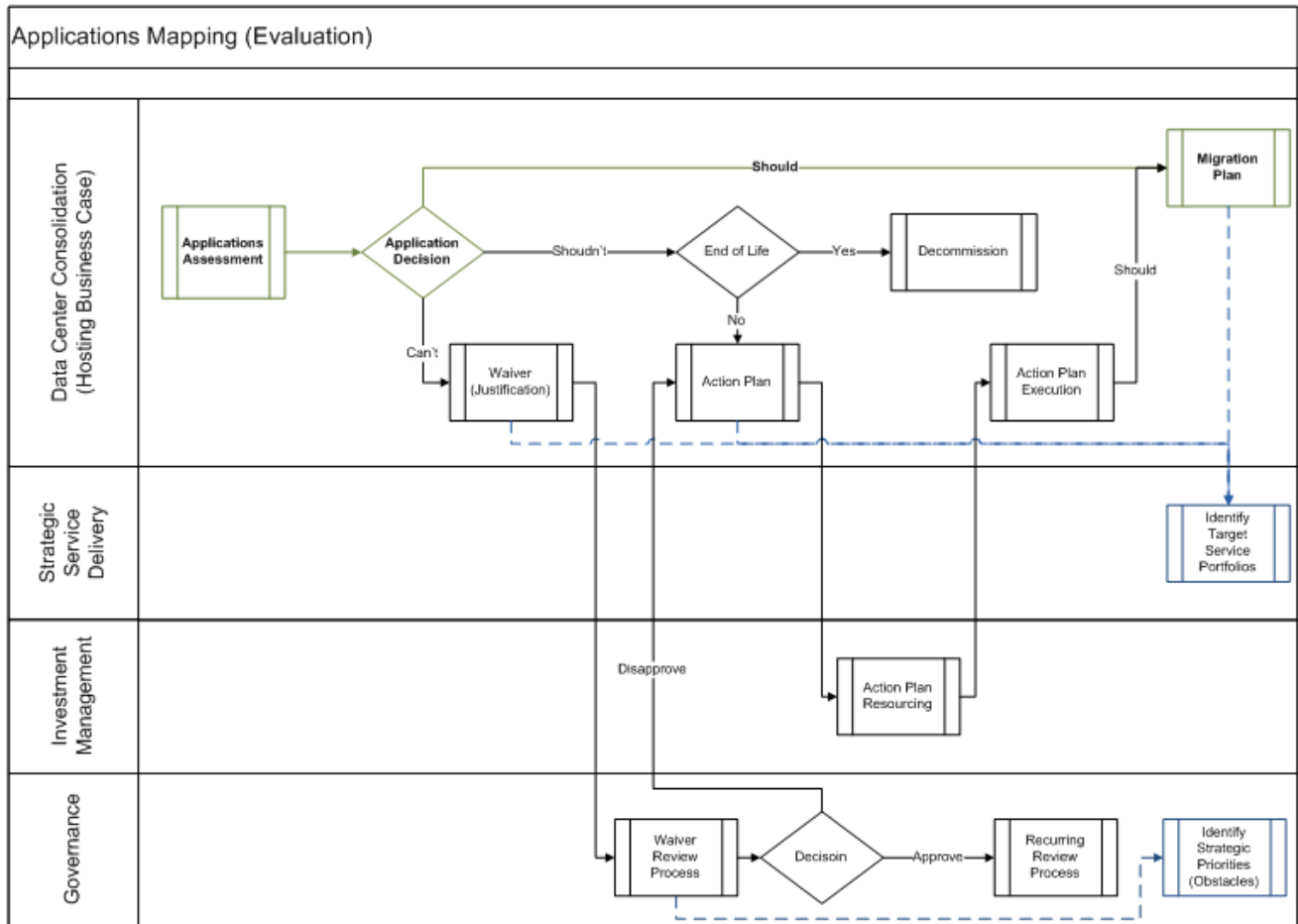


Figure 20 Context for Employing ADAT

Figure 21, below, provides an overview of the ADAT processes and how they support the decision-making and applications life-cycle processes.

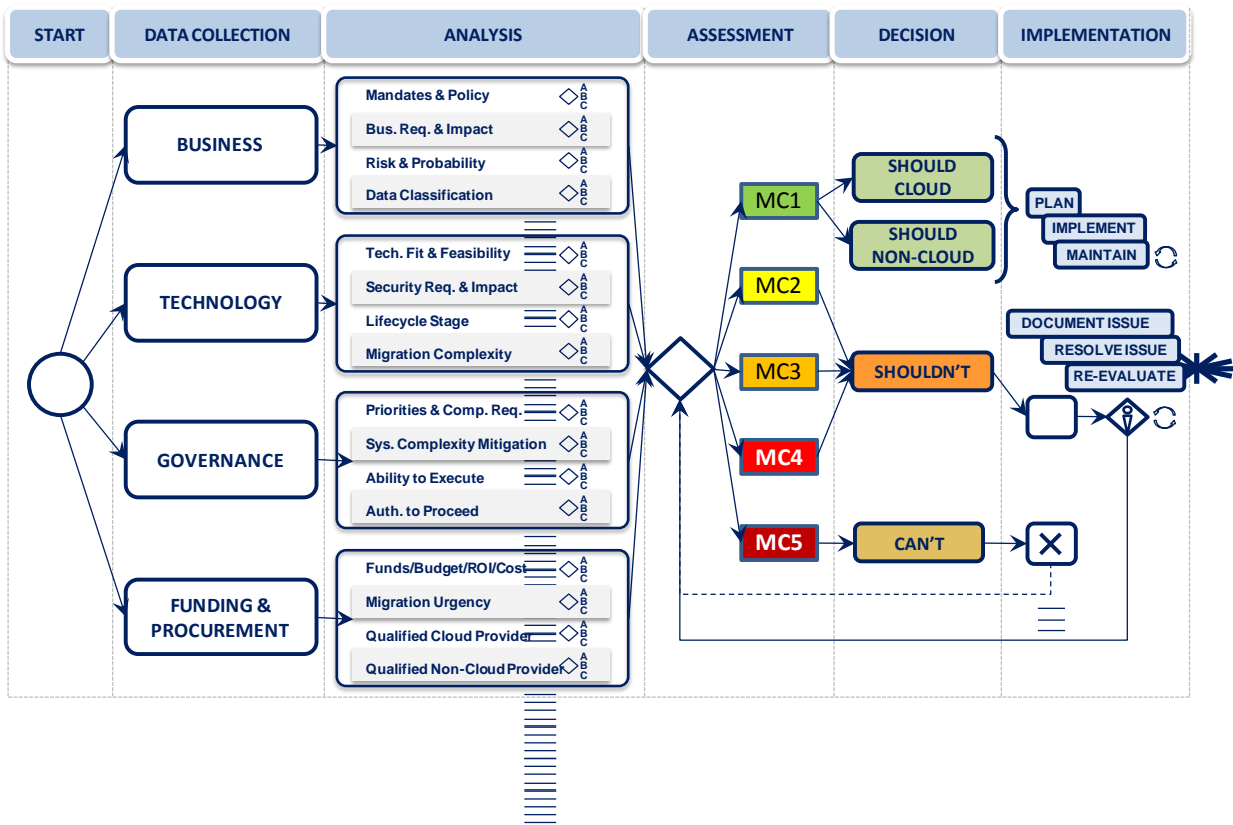


Figure 21 ADAT Process

18.2.4 Action Plans for Migrating “Shouldn’t” Applications

For consolidation of a site to be considered complete, an action plan must developed for each “Shouldn’t” application, and this action plan must be submitted for executive approval, prioritization and resourcing.

18.2.5 Waivers and Documentation of “Can’t” Applications

For consolidation of a site to be considered complete, a waiver must be submitted for each “Can’t” application, and this waiver must be approved by the DOI CIO. All waivers are subject to periodic review to evaluate whether conditions preventing consolidation are still in effect, and to support strategic planning and priority setting regarding these conditions. Some applications will be evaluated and recommended for migration to an “enterprise-wide” service solution enterprise-wide; an ongoing example of this would be enterprise messaging.

18.2.6 Site Consolidation Validation/Audit Process

The Project Management office will establish processes for validating completion of data center consolidation. This process will be based on the approved, defined end-state identified in the site consolidation plan and migration of all applications that “Should” be migrated based on the ADAT.

19. Performance and Communications Guidance

DOI implemented Data Center Consolidation metrics into executive scorecards and operation assessments for FY 2011; these metrics were based on the initial commitment to consolidate 17 data centers in FY2011. The DCCI PMO will complete the final versions of the Performance Management Plan and appropriate metrics upon approval of the project charter, project resource plan and project plans.

19.1 Performance: Basis for Performance Plans

In the “Department Final Data Center Consolidation Plan”, submitted to the Office of Management and Budget (OMB) on August 30, 2010, DOI reported a beginning inventory of 210 data centers. Subsequently, DOI established a commitment to consolidate 95 of these data centers by the end of Fiscal Year 2015 (FY2015) per input received from component organizations. The beginning inventory and consolidation commitments were based on the definition for “Data Center” understood on August 30, 2010. Although OMB has since issued clarifying guidance regarding this definition, DOI will continue to monitor and report project performance against the initial consolidation commitment, even though many of the data centers no longer qualify under the current definition.

19.2 Communications Guidance

Communications is a key factor to the success of all projects. The DCCI project will not develop an independent project communications plan. The project will adopt communications policies and norms developing under the OCIO and the IT Transformation Strategy. DOI has a very distributed communication chain that affects Data Center Consolidation Project. This section outlines the key communications elements that will be applied as strategic policies and norms are being developed and implemented.

19.2.1 Roles and Responsibilities

Figure 22, below, lists the Roles and Responsibilities of the various entities that must be communicated with during Data Center Consolidation.

Role	Responsibility
Executive Sponsor	<ul style="list-style-type: none"> • Authorize funding • Present project results to major stakeholders and other executive bodies. • Facilitate resolution of DOI issues outside of this project
ADIRs or Acting ADIRs	<ul style="list-style-type: none"> • Executives from each organization impacted by the project, stakeholders authorize their organization’s resources required to successfully complete this project • Actively participate in progress reviews to ensure critical project information is communicated to stakeholder organizations • Facilitate resolution of project issues in stakeholder organizations
Team Lead and Co-Lead	<ul style="list-style-type: none"> • Leads team in completing all tasks and deliverables • Coordinates/drives the team’s efforts and is responsible for project results • Accountable for successful completion • Presents project results to Executive Sponsor and Stakeholders • Serves as a conduit for communication, coordination and decision making • Represents and maintains linkages to their functional area • Keeps functional management informed • Applies function’s strategies, tools and standards to the project • Leads weekly communication and Status Meetings
Project Manager	<ul style="list-style-type: none"> • Plans, organizes, monitors, and controls project • Reports status to Executive Sponsor and Stakeholders • Facilitates resolution of project issues and conflicts • Elevates risks and/or issues to IT Transformation Program lead • Monitors and controls project scope, quality, costs, risks and schedule
Bureau Representatives	<ul style="list-style-type: none"> • Maintains accountability and provide reporting for their Bureau • Directs the project activities for their Bureau • Facilitates information exchange to/from their Bureau • Facilitates agreement and approval of Bureau’s information and deliverables • Represents Bureau/Office in weekly communication and status meetings
All Project Participants	<ul style="list-style-type: none"> • Complete assigned tasks and deliverables based on agreed schedule. • Act as Subject Matter Expert (SME) for appropriate organizational function • Provide status updates including issues & risks • Attend all scheduled meetings and commits to scope of the project • Be prepared to take some responsibility to educate others • Communicate openly and assertively and Respect opinions of others • Agree to work toward consensus

Figure 22 Roles and Responsibilities

19.2.2 Stakeholders

The Department of the Interior consists of a diverse group of component organizations. Each of these component organizations has their own internal governance structure. The various levels of these governance structures communicate with the Department of the Interior governance entities. Information and status updates occur both vertically within each organizations governance structure as well as horizontally between the entities and the DOI OCIO office.

Figure 23, below, illustrates this communication chain and its interaction.

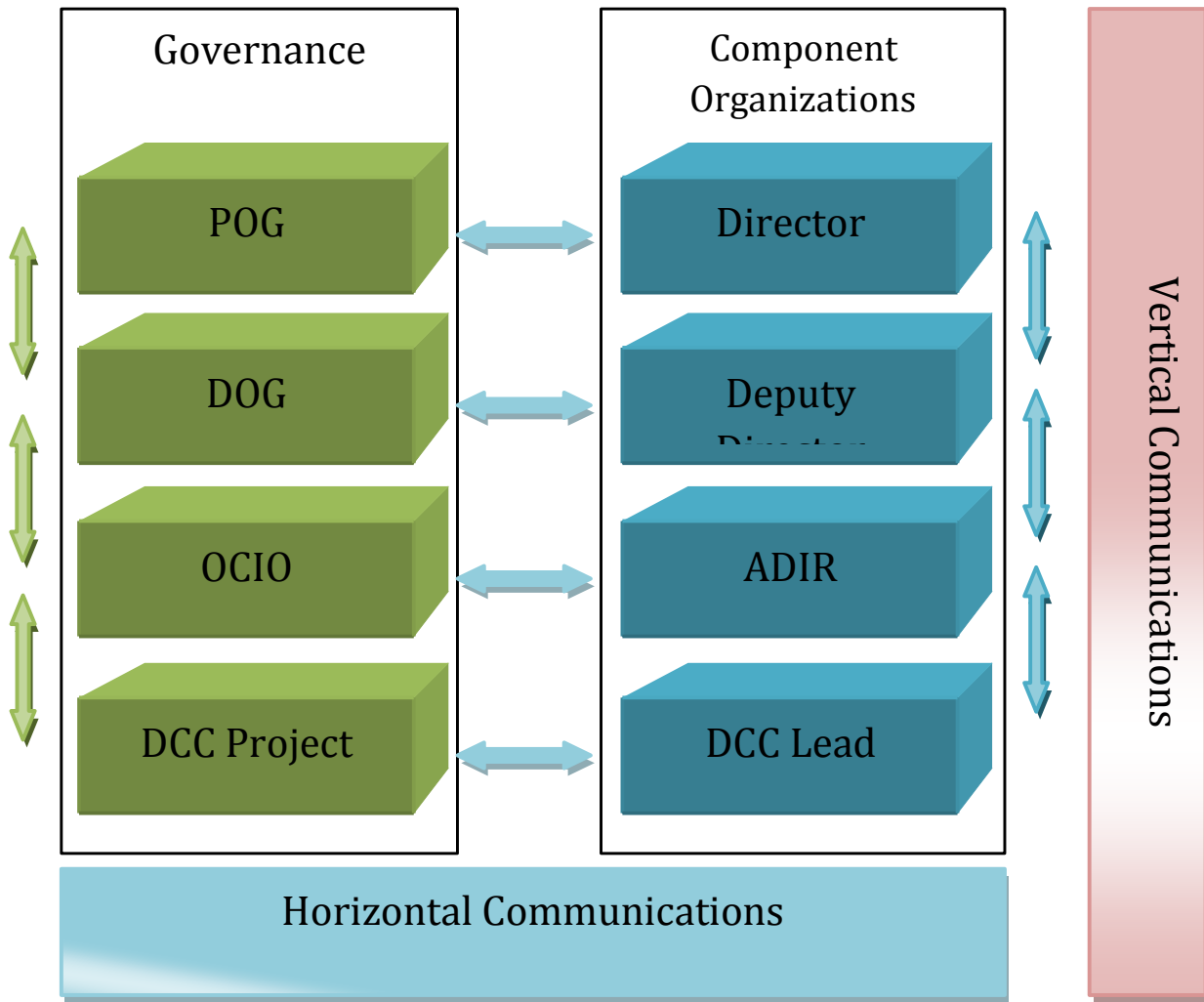


Figure 23 Communications and the Governance Chain

19.2.3 Communications Plan Overview

Project Communications will include the following variety of methods/forums: Face-to-Face and 1:1 meetings; Conference Call briefings (preferred method); Posting of information through the use of the DCCI Portal; Email; Facility; and Status Reports.

Project communications will be target organizational and functional stakeholders identified in Figure 24, below.

	Functional Area Stakeholders											
	L. Mission Areas & Information	M. Data Center Operations	N. Telecom/Networking	O. Budget/Finance	P. Property/Facilities	Q. Energy	R. IT Services	S. Architecture	T. Risk Management/Security	U. IT Investment Management	V. Other IT Subject Matter Experts (SME)	W. Work Force Development & Planning (including unions)
Organizational Stakeholders												
A. Public												
A.1 FOIA												
A.2 Press												
A.3 Non-Government Organizations												
B. Legislative												
B.1 Members												
B.2 Government Accountability Office												
C Judicial												
C.1 Federal Courts												
C.2 Other Courts												
D. Executive												
D.1 Office of the President (Federal CIO)												
D.2 Office of Management and Budget (OMB)												
E. Department of the Interior (DOI)												
E.1 Secretary of the Interior												
E.2. Office of Policy, Management and Budget (PMB)												
E.3 Office of the Inspector General												
E.4 Office of the Chief Information Officer (OCIO)												
E.4.1 Chief Information Officer (CIO)												
E.4.2 Deputy CIO												
E.4.3 Office of Business Services (OBS)												
E.4.4 Independent Verification and Validation (IV&V)												
E.4.5 Customer Relationship Management and Performance (ADCIO CRMP)												
E.4.5.1 Customer Management Division												
E.4.6 Service Planning & Management (ADCIO SPM)												
E.4.6.1 Policy, Planning and Architecture Division (PPAD)												
E.4.6.2 Information Assurance Division (IAD)												
E.4.7 Service Delivery (ADCIO SD)												
*E.4.7.1 Solutions Delivery Division (SDD)												
E.4.7.2 Infrastructure Services Division (ISD)												
E.5 Office of the Solicitor												
F. Bureaus and Offices (Component Organizations)												
F.1 Directors (POG)												
F.2 Deputy Director of Operations (DOG)												
F.2.1 Budget												
F.2.2 Human Capital												
F.2.3 Facilities												
F.2.4 Acquisition												
F.2.5 Programs (Appropriated)												
F.3 Assistant Directors of Information Resources (ADIRs)												
G. Field Managers (Regional, State, Local)												
G.1 Organizations												
G.2 Offices (Locations)												
H. Information Technology System Users												
H.1 Permanent Employees												
H.2 Temporary/Seasonal/Term Employees												
H.3 Contractors												

Figure 24 Stakeholder Matrix

19.2.4 Recurring Meetings

DCCI Daily Standup Call

Attendees: Division Chief, SDD and DCCI PMO

Scope: DCCI PMO daily status and activity alignment

Schedule: Daily, 10AM EST

DCCI Weekly Status Meeting

Attendees: Division Chief, SDD and DCCI PMO, Bureau/Office DCC Leads

Scope: DCC Updates and Bureau/Office Status Reporting

Schedule: Weekly, Wednesday @ 3PM EST

ITT Senior Leadership Meeting

Attendees: ITT Senior Staff (includes CIO), Division Chief, SDD and DCCI PMO

Scope: DCCI PMO status brief to ITT Senior Leadership

Schedule: Weekly, Wednesdays @ 11AM EST

Hosting Business Case Weekly Meeting

Attendees: ITT Senior Staff, Division Chief, SDD and DCCI PMO

Scope: Hosting Business Case and Strategic Acquisition alignment and planning

Schedule: Weekly, Fridays @ 9:30AM EST

DCCI Program Status Meeting

Attendees: Associate DCIO, SD, Division Chief, SDD and DCCI PMO

Scope: DCCI PMO status brief to Service Delivery Management

Schedule: Weekly, Fridays @ 1PM EST

FDCCI Task Force Meetings

Attendees: CIO (co-chair), DCCI Program Manager, Program Managers from other federal Agencies

Scope: FDCCI governance, collaboration, information sharing; Shared best practices and tools.

Schedule: Monthly, third Tuesday @ 1PM-3PM EST

19.2.5 Communications and Status Report Flow and Cycle

The Data Center Consolidation team generates a variety of reports for various audiences. The following Figure 25 shows the sequence and cycles for these reports, and the audiences that review the information.

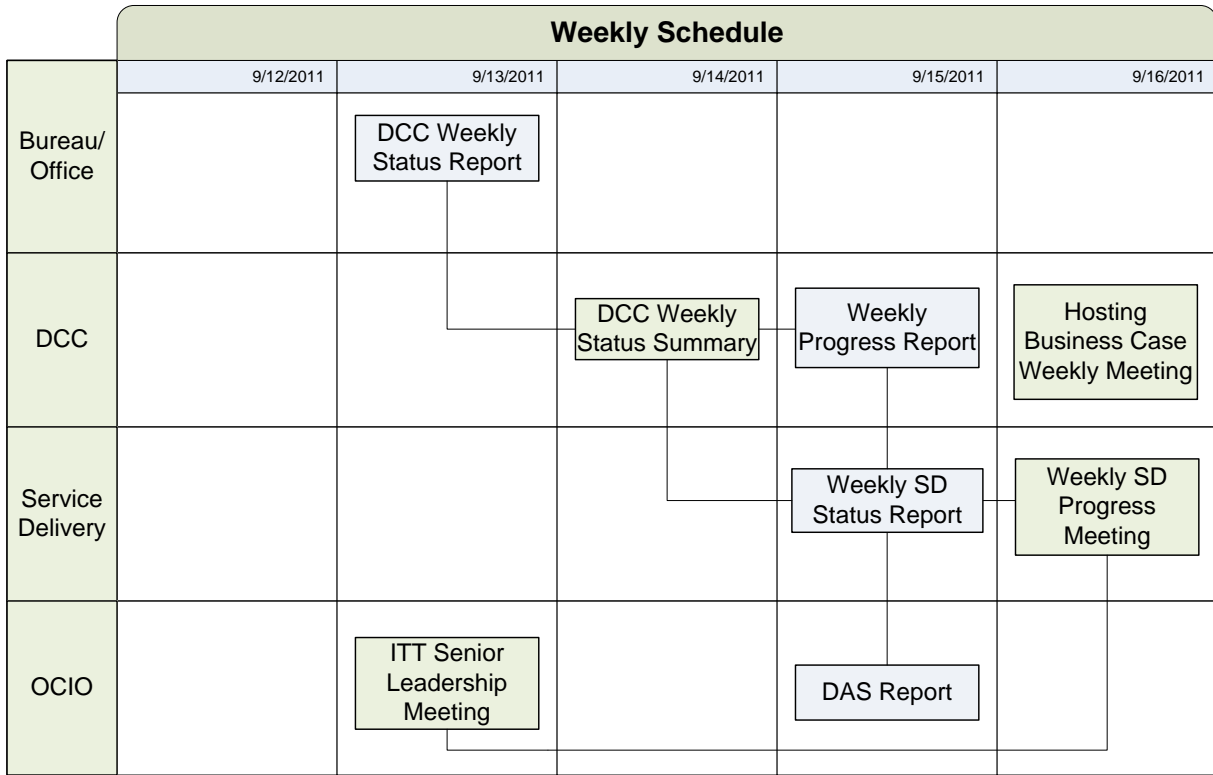


Figure 25 Sequence/Cycle of Reporting

19.2.6 Communication and Status Reports

Figure 26, below, identifies the standard status reports for this project, the personnel responsible for producing the report and the intended audience. Detailed guidance and formats for each report are included on the DCCI project portal.

Report Title	Responsible	Audience	Frequency
Status and Communications Report	Component Organization Lead	DOI DCCI Lead	Weekly
DCCI Status Meeting Summary	DCCI Project Manager	Weekly Meeting Attendees	Weekly
Deputy Assistant Secretary Update	DCCI Government Lead	CIO/DAS	Weekly
Project Status Report	DCCI Project Manager	DCCI Government Lead/ SDD Division Chief	Weekly
Service Delivery Status Report	DCCI Project Manager	Associate DCIO, Service Delivery	Weekly
ADIR Project Status	DCCI Project Manager	ADIRs	Monthly
CIO Project Status Meeting	DCCI Project Manager	CIO, DCIO and DAS	Bi-Monthly
DOG Project Status Report	DCCI Project Manager	DOG	Monthly
Agency Consolidation Report	DCCI Government Lead	FDCCI Task Force, Federal CIO	Monthly

Figure 26 Summary of Communications and Status Reports

20. Assumptions

This section identifies the project Assumptions. These are factors that, for purposes of planning, are considered to be fact, or expected to be factual in order for the project to be successful. Assumptions are potential failure points in the project and need to be monitored and managed. The Assumptions listed below provide input to the risk management process and will be further developed in the Risk Management Plan.

Figure 27, below, lists the Assumptions by major category .

	CATEGORY	Assumption
1	RESOURCE	<ul style="list-style-type: none"> • Funding • Staffing
2	TECHNICAL	<ul style="list-style-type: none"> • Telecommunications • Target Architecture • Tools • Operations • Applications
3	ORGANIZATIONAL	<ul style="list-style-type: none"> • Executive Sponsorship • Bureau Commitment • Change Management • Communication • Accounting & Budget Process
4	HOSTING	<ul style="list-style-type: none"> • Availability • Service (Capability, Capacity, Reliability)
5	ACQUISITION	<ul style="list-style-type: none"> • Acquisition Cycle • Procurement Process
6	PRIORITY & DEPENDENCY	<ul style="list-style-type: none"> • Competing Transformation Initiatives • Bureau/Mission Priorities
7	SECURITY	<ul style="list-style-type: none"> • C&A Boundaries, Security architecture and policies/enforcement will not prevent cross-component migrations.
8	INVENTORY	
9	REGULATORY & LEGAL	
10	Project Management	
11	Business Case	<ul style="list-style-type: none"> • Business Justification • Service Level Agreements • Mission Impact
12	Applications	<ul style="list-style-type: none"> • Standardized Application Model • Performance

Figure 27 Assumptions by Category

21. Business and Technical Considerations

Business and Technical considerations are identified in component level consolidation Plans, and will be reflected in the DCCI PMO Risk Management Plan (RMP).

Additionally, the DCCI PMO has identified significant business constraints related to sharing services across component organization lines, including:

- Competing operational demands for resources;
- CIO and Budget approved business model for estimating and quoting service costs, managing/controlling costs over the service and delivery life-cycles;
- Policies regarding the equitable distribution of costs during transition of services (particularly while migrating organization is still burdened by contractual commitments related to the previous facility and the hosting organization has not incurred incremental costs);
- Interpretation of appropriations laws to determine appropriate service payment/reimbursement mechanisms;
- Standard Agreements: Service Level Agreements (SLAs), InterService Agreements (ISAs) and Memoranda of Understanding (MOUs);
- Telecommunications service capacity and responsiveness;
- Service (Help) Desk Services;
- Shared Active Directory and Identity Management services;
- Target C&A/Security architecture;
- Target Technical Architecture to guide service development, service source selection, and governance of service development, maintenance and enhancement(DME) activities;
- Under- or un-documented applications and systems;
 - PIA/SORN
 - Accessibility (Section 508)
 - Code Documentation
- Applications and systems with dependencies on foundation operating systems, databases or coding environments which are no longer supported by industry or available workforce;
- Inventory and assessment of legal and contractual commitments;
- Financial impact of increased telecommunications needs related to transition (one-time) and remote service delivery (recurring);
- Project specific funding to address “Hidden” operating risks or build initial capacity that would enable parallel implementation; and
- Ability to accurately and consistently measure utilization of certain types of assets.

22. Dependencies and Critical Success Factors and Key

Critical Success factors are identified in component level consolidation plans, and will be reflected in the DCCI PMO Risk Management Plan (RMP).

22.1 Strategic Project Dependencies

In addition to those identified by component, the DCCI PMO has identified dependencies and critical success factors related to ongoing strategic projects in DOI and the federal government. Figure 28, below, identifies DCCI project dependencies related to other strategic initiatives and department level plans.

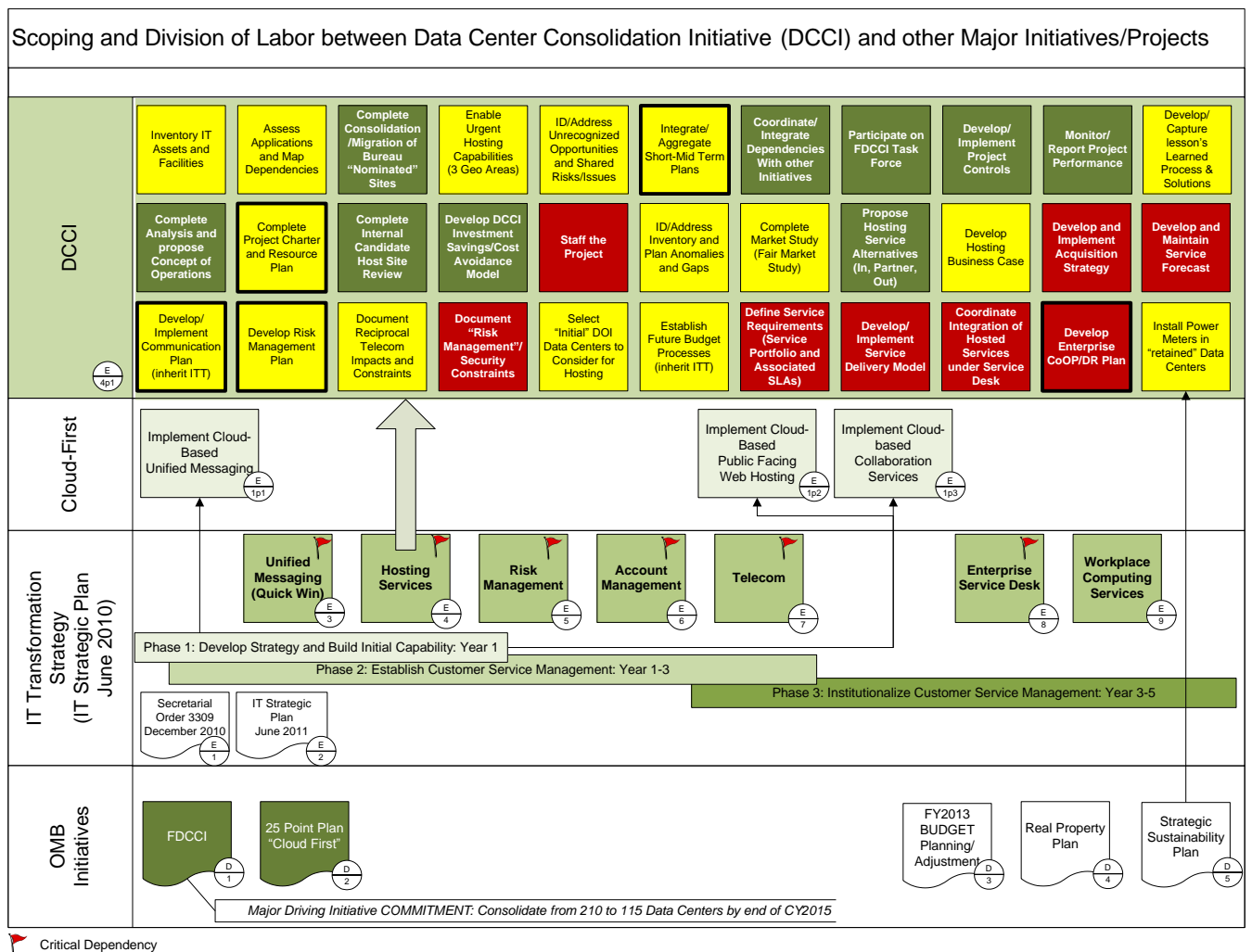


Figure 28 DCCI Project Dependencies (Strategic)

22.2 Inventory Gaps and Anomalies

DOI must also adequately address current gaps and shortfalls in infrastructure inventories. During the CY 2011 FDCCI data call, DOI and component organizations implemented component and department level reviews to identify and assess gaps and anomalies in the inventories provided. Additionally, each component organization was required to provide an executive assessment of inventory quality and risks. These assessments provided the foundation for department-level analysis of inventory gaps and anomalies. Figure 29, below, provides a matrix of the gap areas and the PMO recommended short-range and long-range approach to each.

ID	Inventory Gap/Anomaly Area	Approach	
		Short/Mid-Range (In-Scope)	Long-Range (not in scope)
1	Applicatons: Migration Scoping and Constraints	Implement ADAT	Investment Controls, Architecture, Clear Executive, Legislative, Judicial and Contractual Issues. Implement "Design for the Cloud" policy.
2	Applications: Shared Service Opportunities	Implement ADAT	Implement Shared Services. Converge Applications.
3	Applicatons: Dependency Analysis	Task component organizations/programs/ Systems owners and Seek Industry/Government best-in-class tools to help automate some of the work.	Applications Documentation and Configuration Management Standards
4	Hardware	Complete DOI-WIDE SCCM implementation	Define/Source/Implement IT Asset Management
5	Facilities	Form Integrated Project Team (IPT) with appropriate functional subject-matter-experts and authorities	OCIO and PMB (acquisition and facilities) Implement joint leasing controls
6	Power	Install Power Metering in "Retained" data centers, collaborate with FDCCI Task Force to validate approved modeling/estimation methodology, Initiate Integrated Project Team.	Implement TCO costing for data centers (allocated support infrastructure costs)
7	Work Force	Initiate Integrated Project team and coordinate with IT Transformation Workforce Team.	Implement interim hiring controls. Complete work-force strategy and supporting plans.

Figure 29 Inventory Gap Approaches (Short- and Long-Range)

The DCCI PMO has initiated a number of the short-/mid-range activities above to address inventory gaps and anomalies. Additionally, each of these areas will be addressed extensively in the RMP. Short-/mid-range activities that are approved and resourced will be included on the PMO master schedule.

23. Corrective Action Plan(s)

Corrective Action Plans (CAPs) will be developed as required after project plan is approved and baseline is established. CAPs will address project risk, scope, schedule, budget and performance/quality issues.