



Strategic Plan

June 2011

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Executive Summary

With its redirection of oversight, management, ownership, and control of all Departmental information technology (IT) infrastructure in the Office of the Chief Information Officer, Secretarial Order 3309 (Order), issued in December 2010, provided an unprecedented opportunity to change the conversation about information technology at the Department of the Interior.

Currently IT is characterized by inconsistent alignment with the Department's missions or the needs of its customers. By focusing on the needs of customers, IT leaders in the bureaus and offices, together with the Office of the Chief Information Officer (OCIO), are spearheading a bold effort to transform the Department's \$1 billion IT operation. This effort, supported at the Department's highest levels, will result in a 21st century service delivery organization that provides innovative technologies at lower cost to support our mission areas.

IT Transformation is a multi-year program involving every facet of the Department and will realign how information technology is designed, priced, and delivered in support of customer goals to achieve the Department's mission.

Background

The Order established a single Departmental Chief Information Officer (CIO) who was required to provide a plan to the Secretary in June 2011 that describes how the transition will be executed.

This Strategic Plan has been written collaboratively with stakeholders from throughout the Department and sets the framework for what the IT Transformation is about. The Plan underscores the need for transformation, identifies the services that transformation will deliver, and introduces a high-level roadmap for how we will achieve the transformation within the next four years.

Funding

The Department plans to self-fund the IT Transformation effort by:

1. Applying the remaining "innovations" money in the OCIO's Fiscal Year 2010 Working Capital Fund originally set aside to launch the IT Transformation initiative
2. Establishing planning and delivery teams comprised of OCIO and bureau employees
3. Capturing savings that are generated by IT infrastructure consolidation and other streamlining efforts
4. Re-investing those savings into subsequent phases of transformation

The Department has committed to the Office of Management and Budget (OMB) to realize savings of \$100 million each year from 2016 to 2020, for a cumulative total of \$500 million, by modernizing IT infrastructure and aligning remaining resources to better serve customers. In return, OMB agreed to allow the Department to capture the cost savings associated with the IT Transformation and reinvest them into later stages of the transformation process.

Objectives

IT Transformation will follow a roadmap that charts a logical sequence of activities, including collaboration with our partners in human resources, budget and finance, facilities, and acquisition. We will draw upon best practices from industry, government, and the Department itself in managing large scale transformation efforts. The outcome of the IT Transformation will be a new model for managing and delivering IT that will:



Hydrologic technicians monitoring the Withlacoochee River in Florida rely on technology in the field.

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. For each service area, the price will represent the total cost of ownership, expected level of performance, and a schedule for delivery that will match program timelines.
3. Meet or exceed customer expectations for reliability, accessibility, and availability to the information resources needed to achieve our missions.

This Plan is a first step in what will be a four-year journey, and as such, is a roadmap for the hard work ahead. This document will be supplemented in the coming months by detailed execution plans for the IT services we will provide to our customers and the organizational transformation that will be required to support these services.

By December 2011, the Department will launch several pilots of these services to provide value to our customers in a way they can see, feel, and touch. More complete information about the list of services is found in Appendix A.

The Imperative for Change

Information technology supports every facet of our diverse missions. Employees, volunteers, and the public we serve require modern, reliable, and agile IT services that can be delivered in a cost-effective and transparent manner.

Employees Need 21st Century IT

We reached out to more than ten percent of the Department's workforce, and we heard that they are ready for change. During almost 70 IT Transformation Listening Sessions, OCIO staff, the bureau Assistant Directors for Information Resources (ADIRs) and the Deputy Assistant Secretary for Technology, Information and Business Services, met with more than 1,500 employees in 18 states and 35 cities.

Throughout these conversations, it was clear that employees arrive at work with high expectations for the quality and variety of IT services. In these listening sessions, our front-line IT staff and their internal customers cited significant issues with:

- Reliable network access
- Inter-bureau communication and collaboration
- Desktop support

These issues were repeatedly cited by employees as negatively impacting their ability to perform their jobs. Rather than enabling employees to use technology to help them work better, smarter, and faster, the listening sessions clearly revealed that employees have found ways to work around the limits of IT services at the Department and have even come to accept a less than desirable IT operating environment as the status quo. **The status quo is not working:** 14 separate email systems, varied levels of different networks, the inability to share support services, and the fact that employees cannot easily work from different locations has placed them at a disadvantage.

Increasingly, employees are seeking an IT environment at work that meets or exceeds what they experience at home. They are now accustomed to an extremely connected world, with wireless access in every room of their homes, video teleconferencing from the living room, and easy access to cloud-based collaborative services such as email, social media and instant messaging. The Department's inability to meet these expectations impairs its ability to attract and retain the best talent.

Collaboration Leading to Better Science

A team of biologists from several bureaus share an interest in tracking the effects of climate change on a migratory species. Because their data spans different geographic regions, they agree to share their data. Each posts their data to a secure repository and grants his or her colleagues access to their data. After reconciling their data, they make a portion of the data available to other colleagues outside the Department.

We present this and other hypothetical scenarios as an imaginative projection of the future state towards which this Plan aspires.



National Park Service faces challenges delivering radio services at Glacier National Park.

Our Aging IT Infrastructure Costs More to Maintain

The Department's IT infrastructure requires continuous reinvestment in order to ensure reliability, quality, and security. In recent years, our spending on maintenance has continued to increase at the expense of investment in innovation. Moreover, in a climate of fiscal austerity, IT spending for its own sake is no longer justifiable. Not only does it obscure our ability to connect the dots between IT investments and program outcomes, this approach also places IT in competition with programs for limited resources.

We must find new models that are client-centered. The costs, benefits, and timelines of IT services must be clear to customers and clearly aligned with the bureaus' missions. The IT Transformation meets this challenge head on.

21st Century Technology Presents New Opportunities to Advance the Mission

Rapid IT market advances worldwide allow us to think in entirely new ways about how IT investments can deliver value to our customers. It is now possible to evaluate our investments in technology less as physical assets and more as mission drivers, catalysts for innovation, and potential cost savings.

Technology in the Cloud

The first key change in the IT market is the evolution of IT from an asset to a service. It is now possible for us to think of technology not as a piece of hardware or software we acquire, but rather as a service to which we subscribe. In an area where technology is a service, such as online movie rentals, the complex underlying technologies—logistics, security, bandwidth, support—are not visible to the customer. Rather, the vendor makes a commitment to provide a specific service at a specific price. Similarly, the Department can offer its IT infrastructure, such as website hosting or desktop computing, as pre-packaged services "in the cloud" that can be purchased at a price and quantity that align with program budgets.

Creating Workspaces for Seasonal Employees

The workforce at a National Park increases two-fold during the summer months. Each of the staff will require daily access to email, but the headquarters only has room to support a small number of administrative staff. A facility manager calls the enterprise help desk and is directed to a customer relationship manager with expertise on recreation management. Together they fashion a service agreement through which each seasonal worker will be assigned a durable smartphone. One week prior to staff orientation, the facility receives a package with smartphones. Each device is preconfigured with the staff member's email account and is packaged with personalized instructions.



21st century mobile technologies will better enable real time communication in remote regions, including on Navajo and Hopi lands in northeastern Arizona.

Technology as a Catalyst

The second change in the IT market is the availability of advanced tools that transform not only how we work, but the scope of what we do as a Department. Technology itself is creating new opportunities across program areas. For example, technology enabled home internet access and express mail have completely transformed retail shopping. Technology has the potential to inspire new programs across the Department. Research, education services, conservation, fire safety, and law enforcement have come to not only depend on IT, but are enabling us to serve the public in new ways because of technology.

Vision

The IT Transformation vision is to modernize mission support with 21st Century IT. We will achieve this vision by transforming IT to:

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

Goals

The goals of the IT Transformation are:

- 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
- Support and promote the Department's **mission goals** and high priority initiatives

Expected Outcomes

In undertaking the development of this strategic plan, the many stakeholders that were engaged thought deeply about the proper role of IT within the Department. As we listened to the voices of those who deliver and depend on IT services, we realized that IT must re-conceive its role and responsibilities and adopt new models for the future. We must achieve a new organizational structure in which our impact on mission outcomes is the first, last, and only thing that matters.

First, our IT organization must push aside an outdated model in which the connection between IT investments and the people served is at best unclear and at worst a tether that holds back our performance. Second, IT must prove its commitment to our internal customers by delivering real value—value that is measured in its impact on mission outcomes. And third, IT must develop the internal capabilities to sustain this commitment long after the IT Transformation has ended as a formal program.

We are establishing nothing less than a new mission for IT that will serve as an example both within and outside the Department for responsible investment and good government.

In practical terms, the strategic plan sets forth the design for a new kind of IT organization based on the delivery of customer-oriented services rather than the maintenance of physical assets. For our customers, the experience of working with IT will change in three significant ways:

- **Changing How IT Adds Value to the Mission:** Services will be defined by the value they provide—such as emergency communication or records management—in easy-to-understand bundles through a customer-focused team of client relationship managers
- **Changing How IT is Budgeted and Purchased:** Services will be purchased in discrete packages—such as number of employees—whose price and features are defined in a published service catalog
- **Changing How IT is Delivered:** Services will be delivered at a level of quality and support that is codified in formal agreements and enabled by best-in-class infrastructure

Changing How IT Adds Value to the Mission

IT Transformation will shift how our customers access IT as part of their daily work.

- **Customer Relationship Management.** The primary role of IT staff will shift from system maintenance to client service. IT professionals will conduct an ongoing dialogue with customers, developing a thorough understanding of their mission and needs. IT expertise will also be available through well-defined channels, including an enterprise help desk

Planning for Growth

A USGS business manager is developing a five-year-plan for the expansion of a research team. Among the services she will need are internet access for staff and a website for publishing research data. Her customer relationship manager identifies items in the service catalog. She then includes the price of these services in her financial projections.

and customer representatives. Customers will no longer need to be technology experts to navigate the complexity of IT infrastructure.

- **Service Delivery.** Today IT is provided as individual hardware or software assets. After the IT Transformation, each service will be defined by the value it delivers to its customers, rather than the hardware and software assets it uses. In addition, services may be available in discrete units, such as a temporary subscription to messaging services for a single seasonal employee. From a systems perspective, each service will be a bundle of technologies coming from multiple sources, including external cloud technology providers.
- **Service Portfolio Management.** As the Department's missions and technology itself evolve, our customers will require new services. After the IT Transformation, the Department will continue to develop and introduce new services.

Enabling a Mobile Workforce

An engineer from the U.S. Fish and Wildlife Service is asked to perform a site visit to a remote facility. The only office within several hours is managed by the Bureau of Land Management (BLM). The office manager at the BLM location contacts the enterprise help desk and authorizes the engineer to have full network access. The engineer arrives at the BLM office, plugs in her laptop, and begins work.

Changing How IT is Budgeted and Purchased

IT Transformation will shift how our customers purchase IT and plan for the future.

- **Service Catalog.** Each of the services available to the Department will be "published" in an online service catalog. The catalog will describe up-front the features, value, and cost of each service. Bureaus will be empowered to make informed decisions, whether for short-term purchases or long-term planning.
- **Up-Front Pricing.** The cost of each service will be defined in units that are relevant to our customers and their business characteristics. For example, pricing may be established based on number of employees, duration of need, or number of facilities. Pricing will also vary based on the level of support or access required (e.g., on-site vs. remote support, 24x7 vs. business hours only).
- **Cost Transparency.** As an enterprise endeavor, the cost of providing underlying technologies will be spread across services and customers. Whether procured from an external cloud or an internal Department team, it will be possible to properly associate the monies paid by a customer to the technologies provisioned by the Department.

Changing How IT is Delivered

IT Transformation will drive best-in-class reliability across all mission activities and the enterprise IT services on which they depend.

- **Formal Service Level Agreements (SLAs).** Each IT service will be delivered with an explicit commitment to provide a measureable level of quality and features. This will allow consumers to compare Department IT services with alternatives, as well as choose a level of service (and associated pricing) that is appropriate to their needs. For example, an emergency management team may require workplace services delivered within hours of an incident, while an administrative office may be satisfied with a longer lead time for fulfillment of a request.
- **Modern Infrastructure.** Delivery of services that meet formal SLAs will require significant modernization in the Department's IT infrastructure. IT Transformation will generate cost savings that may be reinvested in upgrades to our current infrastructure. New infrastructure will be provided by the source best able to meet the identified need, whether from within the Department or an external vendor.
- **Governance and Accountability.** IT Transformation will provide visibility into how the Department invests in IT and whether it is receiving the benefits that were expected. The continual flow of information about return-on-investment (ROI) will allow Department leaders to make well-informed decisions about future investments.

Figure 1 shows how DOI will have a customer focused lifecycle for delivery of IT services.

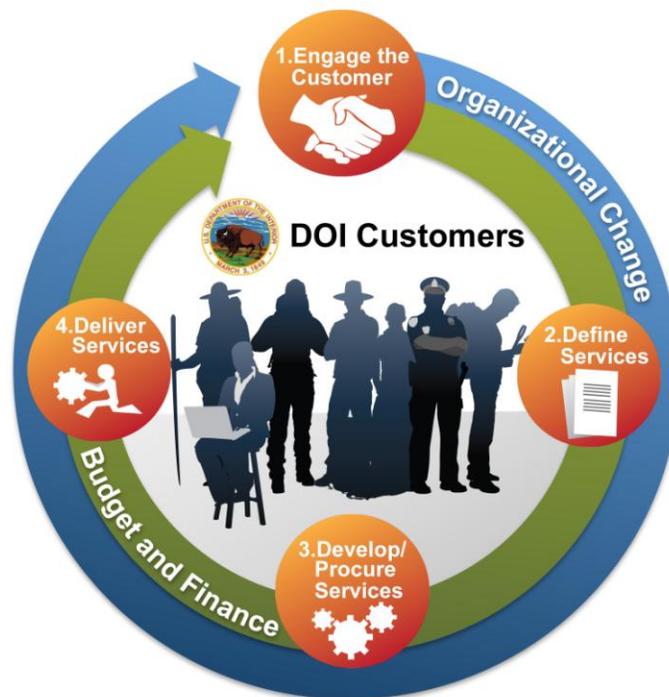


Figure 1: IT Customer Service Lifecycle

Delivering IT Transformation: Guiding Principles

The vision to *modernize mission support through 21st Century IT* is a highly complex and significant undertaking. Success will be measured by the Department's ability to deliver meaningful IT services and by the positive impact of those services on the Department's missions. At every level of the organization, we must shift our approach from focusing on the technology itself to focusing on our customers, their missions, and the value information management brings to help them do their jobs.

Approach

Meeting the challenges ahead will require establishing new models for the Department's IT governance and management, as well as the IT infrastructure itself. Specifically, the Department will:

1. Continue, per Secretarial Order 3309, to shift ownership of all IT infrastructure to the OCIO, including "IT Infrastructure owned and operated by offices within the Office of the Secretary." We are also looking to provide a more collaborative platform for infrastructure to support geospatial activities that will enable bureaus to share geospatial data more effectively.
2. Establish formal collaboration for planning, governance, and management with business and IT leadership at every level of the Department. The creation of the ADIR role as executive partner within each bureau has been a positive first step in building collaboration among bureaus and the OCIO.
3. Realign staff and processes within the OCIO and the Department away from asset management and towards customer relationship management, service planning and design, and service delivery. The OCIO has formally reorganized its own organization and is developing a roadmap to extend this model across the Department, including the immediate offices located within the Office of the Secretary.
4. Define a set of essential customer-oriented, enterprise IT services and publish these services in a catalog. The service catalog is a list of services that can be accessed by customers.
5. Redirect a portion of savings achieved through IT optimization towards the modernization of the Department's IT infrastructure. The Transformation will eliminate IT assets that are outdated, redundant, or prevent the flexibility that a service-oriented model requires.
6. Develop, in conjunction with the bureaus and the Office of Personnel Management, a workforce strategy that will minimize adverse impacts to the Department's IT workforce, while ensuring that the bureau IT functions remain fully operational. Work has already begun in this area, and a vendor who specializes in large scale organizational transformation is expected to be on board in the fall of 2011. We will engage employee Union representatives through the DOI Labor Management Forum and appropriate units in the discussions concerning the impact of the IT Transformation on bargaining unit personnel. Additionally, the OCIO and the bureaus are working collaboratively to implement hiring controls in those IT job series that are most likely to be impacted by the Transformation.
7. Build capacity within the Department by training customers how to leverage the new service delivery model.

What We Aren't Going to Do

The Department sought an approach for IT Transformation that was true to its mission and structure following the issuance of Secretarial Order 3309. In doing so, it has become clear that certain approaches would not be compatible. Therefore the following is not within scope of the IT Transformation:

1. **IT Transformation will not include mission-specific applications.** Bureau employees and IT professionals, who have program specific knowledge and the ability to apply innovative IT solutions that are tailored to their missions, will determine how IT will be used to support their missions. However, the infrastructure that supports mission-specific applications will be examined within the scope of IT Transformation.
2. **IT Transformation will not look for simple answers, such as comprehensive outsourcing.** Rather, we will tackle each challenge by examining the multitude of expertise from within and outside of the agency and by concentrating on necessary performance and expected outcomes.
3. **IT Transformation will not be imposed from the top-down on bureaus and programs.** Bureaus and programs will be partners with the OCIO to specify and deliver services.

Managing Transformation Risk

The IT Transformation is not without significant risk. However, we are working collaboratively to define several accommodation strategies:

1. **Risk:** Differences between and within bureaus may stall the adoption of enterprise services across the Department and the persistence of redundant systems.
Accommodation strategy: Include bureaus at every stage of the planning process in order to identify critical differences and find common solutions. In addition, successful adoption of enterprises services will require some level of built-in flexibility in order to support our diverse customers.
2. **Risk:** Aging and duplicative IT infrastructure continues to persist throughout the Department, delaying the realization of planned savings
Accommodation strategy: Institute a governance and management structure that sustains the focus of the IT Transformation on the elimination of waste.
3. **Risk:** Deploying cutting-edge services may lead to the purchase of new infrastructure assets with the same support costs and inflexibility as our current infrastructure.
Accommodation strategy: Where appropriate, pursue a preference for cloud technologies over large capital investments.

How We Will Get There: The IT Transformation Roadmap

During the past 180 days, significant progress has already been made towards establishing the foundation for IT Transformation. The following milestone achievements have been met:

- Reorganized the OCIO to support the transition towards a customer-centered model for service delivery. Additional details are found in Appendix C of the Plan
- Initiated the establishment and staffing of the bureau ADIR positions and provided detail opportunities for bureau IT staff to the OCIO
- Identified seven primary areas for service delivery in partnership with the bureaus: Unified Messaging, Telecommunications, Account Management, Hosting Services, Workplace Computing Services, Risk Management, Enterprise Service Desk
- Defined with the bureaus, the goals and approach outlined in this Plan, including the contribution of substantial bureau resources towards enterprise service design and deployment

A Phased Approach

Our initial progress, however, is only a first step towards a sustainable IT Transformation. Actual achievement of the IT Transformation goals will be a three phase effort. The Roadmap, located in Appendix B, identifies five focus areas or distinct “work streams,” each of which include their own milestones, phases, and timelines.

Phase I: Develop Strategy and Build Initial Capability:

This initial phase (year 1) focuses on establishing key roles and functions in the OCIO, defining processes to support service development, developing strategies in the areas of acquisitions and human resources with our partners, and addressing how to fund IT Transformation planning. Phase I will also include the piloting of services to validate our assumptions.

Phase II: Establish Customer Services Management:

During Phase II (years 1-3), we begin to apply the customer services management approach for delivering initial services, building support functions, and aligning the customer with service development activities. This phase will result in outcomes that provide additional value to the customer and realize substantive cost savings.

Phase III: Institutionalize Customer Services Management:

The last phase of IT Transformation (years 3-4) moves the Department into a steady state of operations. Service portfolio processes will be fully deployed, the workforce will be realigned to support a customer service-oriented strategy, and continuous service improvement functions will be fully implemented.

Each phase is designed to deliver continuous value to customers. For example, as early as Phase I, IT Transformation will conduct pilots including: deploying one email system for the Department, continuing to close

data centers, re-defining our security policy to allow greater access to new tools, and exploring ways to simplify network access at the National Interagency Fire Center (NIFC). The phased roadmap in Appendix B also facilitates an iterative and inclusive learning process in order to manage risk.

Accomplishments

With Phase I of the IT Transformation underway, the following progress has been achieved by Department stakeholders:

1. We have gained consensus on the vision, goals, and approach for the Plan with bureau stakeholders.
2. We have formed teams for each of the initial IT Service Areas. ADIRs serve as executive partners on each team, in addition to their other responsibilities. Team members include technical experts from throughout the OCIO and the bureaus. The teams will be working on detailed IT service implementation plans that will be presented no later than December 2011.
3. We have closed data centers and initiated other pilot activities to demonstrate collaboration and generate immediate cost savings.
4. We have begun working with the bureaus to design sustainable processes for optimizing hiring and procurement of IT resources across the Department.
5. We have implemented a communications strategy to address employee questions and concerns and keep stakeholders informed about the Transformation's progress.
6. We have established an IT Transformation Office to coordinate the effort.

Over the next several months the Department will:

- Develop IT service implementation plans for the initial portfolio of IT services
- Develop financial models to support unit-based pricing for services
- Complete the next phase in Data Center Consolidation
- Develop the workforce strategy to support IT Transformation
- Develop the IT Transformation sourcing and acquisition plan

Summing It All Up

Without a doubt, the IT Transformation is the Department's best chance for effectuating a meaningful change in the way IT services are delivered and managed. By keeping the needs of our customers at the forefront, we can deliver value-driven IT services that make it easier for employees to do their jobs. The Transformation also represents the best opportunity for the OCIO and the bureaus to work together to collectively manage a challenge that we all share.

As we move forward on each of these activities, we will begin to see IT Transformation-in-action by accelerating our closure of data centers, delivering services to our customers, realizing cost savings, and improving the overall performance of IT. Another likely outcome will be our enhanced ability to attract and retain the best talent in the Federal Government by providing employees with the tools and technology that they not only deserve, but have come to expect.

Given the fact that IT supports every facet of our employees' work, no less than the future of the Department is riding on the successful and sustainable implementation of the IT Transformation.

Appendices

- A. IT Service Areas**
- B. IT Transformation Roadmap**
- C. IT Transformation Management**

Appendix A: IT Service Areas

Appendix A is a categorization of the services that will be delivered from the OCIO and was developed in collaboration with the bureaus and program offices. Prioritizing the delivery of these services to our customers was based on the:

- Ability to deliver the highest value to employees
- Areas where employees told us they experienced the greatest frustration in doing their jobs
- Most foundational to the spirit of the IT Transformation
- Quickest wins

Initial Focus Areas:

OCIO and the ADIR working group have identified seven IT service areas that will receive immediate attention from the IT Transformation:

- Unified Messaging
- Telecommunications
- Account Management
- Hosting Services
- Workplace Computing Services
- Risk Management
- Enterprise Service Desk (Help Desk)

Each represents an opportunity to provide immediate tangible benefits to customers and to build a foundation for subsequent Transformation efforts. With ADIRs acting as executive partners, bureaus and offices within the Department have generously assigned staff to develop a charter for each area.

IT Service Area	Description
<p>Unified Messaging</p>	<p>The Department has a diverse mission and a widely dispersed workforce, including over 200,000 volunteers. The Department is committed to developing new IT services that will allow employees and volunteers to find and communicate with each other anywhere and at any time. Consolidating and enhancing messaging services will enable greater coordination across the Department while reducing the cost of system duplication.</p> <p>Messaging and collaboration services for all Department users will include:</p> <ul style="list-style-type: none"> • Email delivery to any device used by customers (e.g., smartphones, laptops, tablet computers, such as iPads) • Instant messaging • Desktop and mobile videoconferencing • Message archiving for legal retention
<p>Telecommunications</p>	<p>There is no civilian agency that may be as mobile or geographically dispersed as the Department of the Interior. Customers have told us they need to access the network anytime, anywhere, and anyplace to improve collaboration and to work more efficiently.</p> <p>The Department is committed to developing new IT services that allow employees to communicate with each other across departmental and physical boundaries. Examples include:</p> <ul style="list-style-type: none"> • Network interoperability (e.g., among bureaus and with other federal agencies) • High-speed connectivity for exchange of large data files • Voice, video, and data communications that work across any technology (e.g., radio, IP, 3G/4G, satellite) • Secure but flexible controls over network access
<p>Account Management</p>	<p>Employees from multiple bureaus must be able to work and collaborate from any DOI location with full access to the facility and computing equipment. The need for a Department solution for account management was raised across virtually all the site visits. This service will provide:</p> <ul style="list-style-type: none"> • A shared employee directory that includes work addresses, phone

IT Service Area	Description
	<p>numbers, and other information for employees</p> <ul style="list-style-type: none"> • Support for instant “plug and play” access for employees at any bureau location • Fewer usernames and passwords for most applications • Secure control over what employees may and may not access
<p>Hosting Services</p>	<p>Currently more than half of the Department’s IT spending is directed towards IT infrastructure including data centers, application hosting, and security. Modernization and streamlining of our infrastructure will allow the Department to reduce costs while improving service to our customers.</p> <p>In this area, we will focus on high-impact activities, including:</p> <ul style="list-style-type: none"> • Consolidation of our infrastructure, beginning with data center reduction • Migration of hosting services to more modern delivery models, such as external hosting and cloud computing
<p>Workplace Computing Services</p>	<p>This service area addresses how customers directly experience IT systems and services. Our efforts will encompass all aspects of computing devices that are used to access Department information. The impact will be an improved customer experience and reduced management cost across the Department, including as per Secretarial Order 3309, IT within the Office of the Secretary.</p> <p>Activities may include:</p> <ul style="list-style-type: none"> • Provisioning of personal IT, such as desktop computers and laptops, within 1-2 days of an employee’s start date • Introduction of cutting-edge personal devices that support a mobile workforce, such as tablets and smartphones • Enabling employees to securely access Department information resources with their personally owned equipment
<p>Risk Management</p>	<p>Customers understand the need for IT security, but also want to ensure that the risk of a security event is managed in ways that do not hinder the program delivery. This service area will focus on revising and aligning IT security policies to better manage risk, so as to better balance risk management and mission priorities. The results will minimize the negative impact of risk management on mission activities while improving security.</p>

IT Service Area	Description
Enterprise Service Desk (Help Desk)	<p>A mobile and technologically equipped workforce will require highly specialized and responsive support on a daily basis. An enterprise-wide service desk will connect our customers with technical experts who can provide the assistance they need when and where they need it. This service area may include the following:</p> <ul style="list-style-type: none"> • A single toll-free number that employees may use as a starting point for assistance • Acceptance of service requests via voice, web chat, web forms, and email • Routing of trouble tickets to the right technical support resources

Table 1: IT Transformation Focus Areas

Additional High Priority Focus Areas:

OCIO and the ADIR working group identified four additional IT service areas for inclusion in the IT Transformation:

- Records and Archives
- Enterprise Web Services
- IT Planning Services
- Radio Services

Work has begun to clarify the objectives and scope, and OCIO expects to initiate pilots in each area as part of Phase II. Additional service areas may be added.

IT Service Area	Description
<p>Records and Archives</p>	<p>The Department workforce bears a significant responsibility for thorough record keeping. This service area will focus on implementing services that ensure compliance with these responsibilities in a manner that is less intrusive and time consuming. Specific efforts may include:</p> <ul style="list-style-type: none"> • Electronic records management • Records management • Legal holds process • Dual permanency
<p>Enterprise Web Services</p>	<p>Department web sites are among the most popular sources of information on the Internet. This service area will focus on new models for hosting that are less expensive, more reliable, and easier to maintain. Specific efforts may include:</p> <ul style="list-style-type: none"> • Hosting services for public web sites and databases • Standardized content management systems that require little or no technical expertise • Collaboration tools that bridge the gap between internal and external partners

IT Service Area	Description
IT Planning Services	<p>IT Transformation will provide the Department with visibility into IT infrastructure costs and allow planners to allocate these costs to specific mission activities. Among the areas supported by this service area are:</p> <ul style="list-style-type: none"> • Capital planning • Strategic IT planning • Enterprise architecture • IT project management • 508 compliance
Radio Services	<p>The Department faces significant challenges due to its geographic diversity and dispersion. Our workers are highly dependent on radio communication, which is rapidly converging with other wireless technologies. The service area will provide a comprehensive approach to the following:</p> <ul style="list-style-type: none"> • Land mobile radio services • Device procurement and standardization • Radio infrastructure • Spectrum management • Radio over IP and other wireless technology convergence

Table 2: Additional High Priority Focus Areas

Appendix B: IT Transformation Roadmap

The IT Transformation Roadmap represents the logical sequencing of activities to achieve the IT Transformation vision. The roadmap was developed based on industry basic practices in managing large scale transformation efforts and tailored to the Department's environment. The key components of the roadmap are:

Focus Areas: The five primary work streams in which the Department has organized the Transformation effort.

Milestones: The completion of a major event in the IT Transformation process.

Phases: The logical progression from establishing the foundation to institutionalizing the customer-oriented approach to IT delivery.

Provided below are profiles of each of the IT Transformation Focus Areas, including Objectives, Approach, and Outcomes.

Customer Relationship Management

Phase I – Develop Strategy and Build Initial Capability	Phase II – Establish Customer Service Management	Phase III – Institutionalize Customer Service Management
<ul style="list-style-type: none"> • Customer Segments Identified • Relationship Managers Assigned 	<ul style="list-style-type: none"> • Customer Council Established • Department-Wide Customer Care Center Established 	

Table 3: Phases of the Customer Relationship Management Focus Area

Objectives

The Customer Relationship Management focus area identifies the set of activities necessary to ensure that the Department provides outstanding IT customer service as it evolves to a transformed IT environment. This includes an improved understanding of customer needs, world class customer care, and consistently high customer satisfaction levels.

Approach

Define Customer Segments – In order to improve IT customer service, the Department will define its customer base to tailor and streamline IT services to the unique needs of customer “segments” by grouping employees by the type of work they do or the type of IT support they need. The customer segments will be developed from professional profiles based on feedback received from ongoing communication and collaboration with Department customers and the ADIRs. We will also leverage workforce analyses. Developing customer segments is the initial milestone for this focus area that will occur in Phase I of the IT Transformation.

Establish Relationship Management Function – The Relationship Management function is another Phase I activity and is designed to ensure that IT customers participate in the identification of service requirements, delivery mechanisms, and performance levels. One of the milestones within this focus area is to establish formal account management roles in the Department. These roles will include working with the bureaus and offices to recommend services to meet existing customer needs and to understand new requirements that may need new services. Relationship managers will also coordinate activities with ADIRs to ensure that the IT strategy aligns with the bureau and office mission strategy.

Integrate Voice of the Customer into Service Development and Delivery – A key feature of institutionalizing a customer service management approach will be integrating the voice of the customer into service strategy, design, implementation, and ongoing lifecycle management activities. A key milestone for this effort will be establishing an IT Customer Council to provide recommendations for service improvements based on customer communications and interactions with relationship managers. The Customer Care Center will be an

extension of the Enterprise Service Desk providing “high-touch” resolution of problems requiring special or personal attention.

Outcomes

The Department will achieve the following outcomes:

- IT services designed for customer groups with similar IT needs
- The institutionalization of a customer-facing organization that focuses on IT service needs and feedback on existing services
- An established capability to forecast IT service demand to support the IT Service Portfolio
- Consistent, high-performance customer service

IT Service Portfolio

Phase I – Develop Strategy and Build Initial Capability	Phase II – Establish Customer Service Management	Phase III – Institutionalize Customer Service Management
<ul style="list-style-type: none"> • Service Portfolio Defined • Services Initiated 	<ul style="list-style-type: none"> • Ordering Procedures & Policies Defined 	<ul style="list-style-type: none"> • Full Set of Services Offered through On-Line Service Catalog

Table 4: Phases of the IT Service Portfolio Focus Area

Objectives

The objective for the IT Service Portfolio focus area is to identify and prioritize the set of IT services requested by customers and to provide those services in the most customer-friendly and efficient manner possible.

Approach

Define Service Portfolio – Establishing an IT service portfolio will begin by working with bureau ADIRs to document and describe business-oriented IT services that the Department can offer to customers. The OCIO will continue to work with ADIRs to develop a framework for evaluating the value of these services and approve projects that meet the criteria for funding. A Service Manager will be assigned to assess the technical and financial feasibility of a service introduced into the service pipeline, and, if approved, will be responsible for leading the implementation of the service.

Establish Services and Ordering Processes – Beginning in Phase I the Department will initiate the development of IT services. Procedures and policies for customers to order those initial services will also be established including how to purchase services, establish Service Level Agreements (SLAs), and comply with policies to make purchases.

Institutionalize A Full Set of Services – This milestone reflects how the initial set of services and any additional services will be deployed. The IT service catalog will be an interactive, searchable website that is organized and allows customers to easily find and order the services they seek. Each IT service provider will commit to a certain level of service at a given level of quality.

Quality Assurance and Performance Management – Though not identified as a distinct milestone in the roadmap, quality assurance and performance management underlie service delivery and are critical components for continuing to improve service. Rigorous performance monitoring and reporting on customer satisfaction metrics and service level agreements with supporting analytics will ensure that customer needs are being met. In conjunction with a performance management system, a quality management system will be deployed to assess and evaluate the quality of services. This is an ongoing and continuous activity for all phases.

Outcomes

The Department will achieve the following outcomes:

- The provisioning of a portfolio of IT Services that best meets customer needs
- The ability to efficiently update the IT Services Portfolio in response to changing customer requirements
- Consistent high performance of IT service delivery as measured by customer satisfaction levels and verified by an independent quality assurance team

Technology Implementation

Phase I – Develop Strategy and Build Initial Capability	Phase II – Establish Customer Service Management	Phase III – Institutionalize Customer Service Management
<ul style="list-style-type: none"> • 10% Reduction in Data Centers 	<ul style="list-style-type: none"> • Unified Messaging Implemented • 15% Reduction in Data Centers 	<ul style="list-style-type: none"> • Architecture Fully Completed • 45% Reduction in Data Centers

Table 5: Phases of the Technology Implementation Focus Area

Objectives

The objective for the Technology Implementation focus area is to build the technology and delivery capability for delivering IT services in a manner that improves performance and reduces cost.

Approach

Data Center Consolidation – The Department has committed to OMB that it will reduce the number of data centers by 45%, from 210 to 115, by 2014. The milestones reflect this reduction over time and represent the 95 data centers that were identified by the bureaus and offices as sites where hosting operations can be easily migrated to another location. For the remaining 115 data centers, the Department will pursue a continuous consolidation plan and has developed a rigorous migration planning and execution process to assess the feasibility of decommissioning, migrating, or retaining operations based on a careful assessment of the applications that are being hosted at each site. Using this process, the Department will continue to consolidate data centers through each phase leveraging different sourcing alternatives (e.g., cloud computing) that will become available as IT Transformation evolves.

Ongoing Technology Transformation – The Department will continue its ongoing efforts to provide a single email system, a Department-wide web hosting service, and consolidated directory services to optimize the performance of the network. Many of these activities will be completed in Phase II, which will provide direct value to customers and provide leadership confidence that the Department is achieving its goals. The initial milestone for these efforts will be the migration of all Department employees to a single email system.

Architect Technology for Services – The Department will incrementally build out its target architecture as it implements new IT services. This milestone defines a clear relationship of technologies to services to address the behind-the-scenes technical management efforts that are necessary to deliver the IT services our customers care about. The fulfillment process ensures that the “last mile” of IT service provision to the customer meets the customer’s needs in a seamless, transparent, and satisfactory manner.

Outcomes

The Department will achieve the following outcomes:

- An accurate and transparent method for allocating costs to services
- An ability to communicate and collaborate using a single email system
- Improved network performance for faster and unimpeded transmission of information
- A reduction in overall cost for Departmental email services
- Approximately a one-third reduction in infrastructure costs resulting from data center consolidation
- Reduce IT infrastructure costs from optimizing the performance of the network

Budget and Funding

Phase I – Develop Strategy and Build Initial Capability	Phase II – Establish Customer Service Management	Phase III – Institutionalize Customer Service Management
<ul style="list-style-type: none"> Initial Funding Model for IT Services Defined 	<ul style="list-style-type: none"> Complete Funding Model for IT Services Defined 	<ul style="list-style-type: none"> Funding Model for IT Services Implemented

Table 6: Phases of the Budget and Funding Focus Area

Objectives

The Budget and Funding focus area identifies the set of key activities needed to ensure that the Department improves the predictability of overall IT costs, while providing transparency and fairness in the cost allocation to the bureaus.

Approach

Define Funding Models for IT Services – The shift to an IT Customer Services Management model requires a corresponding shift in the way the Department accounts for IT expenditures. This shift will focus on the costs of comprehensive services rather than on discrete technologies and must include an identification of mandatory versus discretionary services. In conjunction with the shift in the basis of accounting for IT costs, a set of comprehensive cost models must be developed to provide the analytical basis for the development of budget forecasts and for comparative analysis of competing technology solutions. The Department will develop a transparent model for allocating IT costs to bureaus and offices as part of the maturation of IT financial management process, as well as work collaboratively to align current IT budgets with the new service delivery model via a “cross-walk.” This milestone will ensure that bureaus and offices can easily understand the costs for IT services as they evaluate how to employ IT in support of their missions.

The Department will need to track expenses against services (in the service catalog) by developing cost models that accurately account for the costs of IT services. Similarly, bureaus and offices must use these costs models to measure existing budget commitments and estimate future expenses for IT services. The Department will need to recover their costs through implementing a chargeback process that bills customers for the services they consume.

Implement Funding Models for IT Services – Once the set of cost models has been developed, the Department will focus on providing bureaus and offices with the tools and data they need to predict their costs for various IT services. As a final step in the development of the financial processes, the Department will implement the chargeback model and ensure that the costs for IT services are allocated equitably to the users of those services.

Outcomes

The Department will achieve the following outcomes:

- Improved ability to manage and forecast overall IT budget requirements
- IT accounting model and cost control processes that align with industry best practices
- Improved ability for bureaus and offices to predict their costs for IT services and to evaluate alternative approaches to meeting technology related business requirements
- Full, fair and easily understood allocation of IT costs across the Department

Organizational Change

Phase I – Develop Strategy and Build Initial Capability	Phase II – Establish Customer Service Management	Phase III – Institutionalize Customer Service Management
<ul style="list-style-type: none"> • Detailed Implementation Plan • Workforce Analysis Complete • Enterprise Acquisition Strategy Defined 	<ul style="list-style-type: none"> • Workforce Strategy Defined • Acquisition Strategy Implemented 	<ul style="list-style-type: none"> • Workforce Realigned to Support Service Strategy

Table 7: Phases of the Organizational Change Focus Area

Objectives

Fundamental organizational changes will be needed to move the bureaus and offices to a centralized IT management and service delivery structure. This focus area includes an initial milestone for developing a detailed implementation plan to realize the vision in this Plan.

Approach

Workforce Analysis – The first milestone in the alignment of the IT workforce is to analyze the capabilities of the existing workforce against the skills required to perform in the transformed IT environment. A key outcome of this analysis will be the identification of critical gaps/excesses in skills, geographic coverage, and numbers of FTEs across the Department.

Develop Workforce Strategy – Once the analysis of the workforce is complete, a comprehensive plan will be developed to address the skill gaps, outline training programs, and provide a path for career development within the transformed IT organization.

Realign the IT Workforce – As services are established and consolidated through implementing the service delivery model, the IT workforce will be aligned according to the new organizational model. This alignment will follow a logical and predictable path that minimizes the impact on bureau operations.

Define an Enterprise Acquisition Strategy – The set of activities associated with this milestone will establish a focused plan for the strategic acquisition of IT services. It will identify processes and priorities for the acquisition lifecycle, from establishing the business need and service concept, to vendor evaluation and selection, contract development and management, and close-out. This milestone includes establishing a consistent set of evaluation criteria to help translate the sourcing/acquisition strategy into specific actions that facilitate the implementation of the strategy.

Implement Acquisition Strategy – This final milestone includes establishing a variety of flexible contracts for acquiring common IT infrastructure services from best-in-class vendors.

Outcomes

The Department will achieve the following outcomes:

- Clear, concise assessment of gaps/excesses in skills, geography, and FTE counts
- Comprehensive plan to address skills and geographic gaps; outline training programs and a clear career development path for IT management staff
- Clear, concise sourcing/acquisition strategy and set of sourcing evaluation criteria

Appendix C: IT Transformation Management

To manage the IT Transformation, the Department has reorganized the Office of the CIO, developed an Integrated Project Team comprised of senior executives, created new roles and responsibilities, and established IT Transformation governance processes. These efforts are summarized below:

Organizational Realignment

The Department reorganized into a more customer and service driven organization in March 2011. This new organizational structure better enables the Department to implement Secretarial Order 3309. The major functions provided by the Departmental OCIO are:

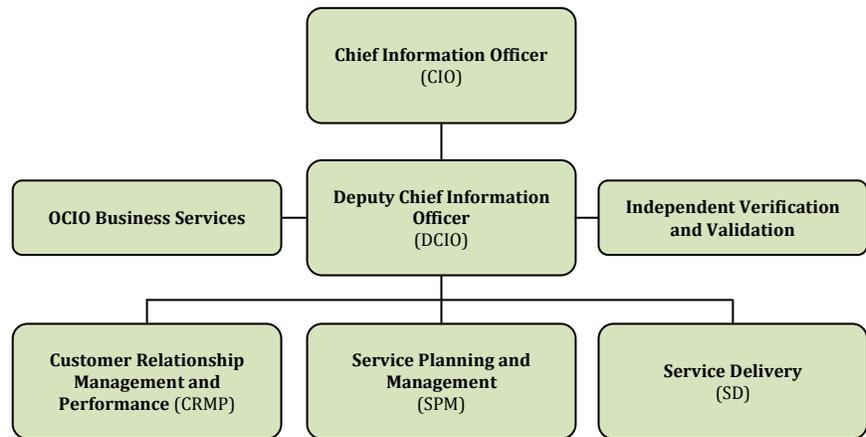


Figure 2: OCIO Organizational Chart

- **Customer Relationship Management and Performance:** This function manages the collaboration with Department customers to identify new service requirements and measure their satisfaction with IT services relative to established performance metrics.
- **Service Planning and Management:** This function manages the development and implementation of IT services based on program and customer requirements and available budget resources. It provides a critical connection between customer requirements and service delivery.
- **Service Delivery:** This function operates and manages the delivery of all enterprise services and supporting IT infrastructure to meet Service Level Agreements (SLAs).

The Department also established the following support functions:

- **Independent Verification and Validation:** This function provides quality assurance and performance management and ensures that products and services offered by the Department meet specified standards of quality and established performance metrics. It also ensures that processes follow quality procedures and standards.
- **Office of Business Services:** The Office of Business Services provides business planning and coordination, financial, workforce, acquisition and administrative support for the OCIO.

In implementing an IT customer service management approach, the Department will develop new financial management models, including accounting, charging, and budgeting, to improve the management of IT investments and associated services. Improved information about IT costs and value will help the Department to better budget

for future expenditures. By establishing a clear process that links actual IT costs to the budgeting process, bureaus and offices will be able to better forecast costs and avoid shortfalls. Customer will be able to pay for services as they need them in a scalable, flexible manner.

The outcome of the IT Transformation will impact not only the Department’s customers, but also its IT workforce. The Department’s IT workforce is the most critical success factor for how IT services are currently delivered and how these services can ultimately be transformed in the future. Plans are underway to engage the Office of Personnel Management (OPM) to assist the Department with IT Workforce Planning. This will ensure that the IT Transformation workforce needs are developed and articulated in executable plans (e.g., workforce planning, succession planning, competency mapping, training, staff alignments). OPM’s engagement is planned to include a change management process that focuses on various channels for employee communications.

New Roles and Responsibilities

Moving to a customer-oriented, service-driven organization requires the development of new roles and responsibilities. Provided below is a summary of these new roles.

Role	Responsibilities
Assistant Directors of Information Resources (ADIRs)	ADIRs are “partners” in the IT Transformation process. They are responsible for providing information management resources to the bureaus and are liaisons between the bureaus and the OCIO.
Relationship Managers	Relationship Managers work with customers to understand their work needs and ensure their satisfaction with delivered services. They will cultivate relationships with the customers to understand their challenges and recommend products/services to meet those needs. They coordinate activities with the ADIRs to ensure that the IT strategy aligns with the bureau and office mission strategy.
Service Managers	Service Managers will develop and manage the services areas described in the services portfolio and will be responsible for maintaining service descriptions, pricing, communications, and other outreach activities to customers. Working closely with the Relationship Managers, the Service Managers will translate business objectives based on customer feedback into service requirements for new products and services.

Role	Responsibilities
Delivery Managers	Delivery Managers will be responsible for bureau-level service delivery and operations to ensure the timely delivery of services in accordance with customer requirements. They will be responsible for the ongoing delivery of services, including operations and maintenance activities.

Table 8: Roles and Responsibilities

Integrated Project Team

The scope of IT Transformation requires expertise from across the Department. Therefore, a senior executive-level Integrated Project Team (IPT) has been established to guide the IT Transformation effort. The IPT is comprised of executives from Finance, Acquisitions, Facilities Management, and Human Resources who will apply their expertise in an advisory capacity to the IT Transformation effort and ensure that their staffs are prepared to move IT Transformation forward.

IT Customer Council

The IT Customer Council is integral to the overall governance process by ensuring that an enterprise perspective is taken to identify customer needs, identify service requirements, prioritize services, and collectively assess services implementation performance. The Council is an important feedback mechanism in the customer services management life cycle.