# Department of Homeland Security
## Office of Inspector General

# U.S. Citizenship and Immigration Services' Progress in Modernizing Information Technology

OIG-09-90

July 2009

*Office of Inspector General*

**U.S. Department of Homeland Security**
Washington, DC 20528


July 13, 2009

## Preface

The Department of Homeland Security Office of Inspector General was established by the *Homeland Security Act of 2002* (Public Law 107-296) by amendment to the *Inspector General Act of 1978*. This is one of a series of audit, inspection, and special reports prepared as part of our oversight responsibilities to promote economy, efficiency, and effectiveness within the department.

This report addresses the strengths and weaknesses of the Information Technology modernization for U.S. Citizenship and Immigration Services. It is based on interviews with employees and officials of relevant agencies and institutions, direct observations, and a review of applicable documents.

The recommendations herein have been developed to the best knowledge available to our office, and have been discussed in draft with those responsible for implementation. We trust this report will result in more effective, efficient, and economical operations. We express our appreciation to all who contributed to the preparation of this report.

Richard L. Skinner
Inspector General

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## Abbreviations

| | |
|---|---|
| BSS | Biometric Storage System |
| CIO | Chief Information Office |
| DHS | Department of Homeland Security |
| EA | Enterprise Architecture |
| EDMS | Enterprise Document Management System |
| FY | Fiscal Year |
| IPT | Integrated Project Team |
| OIG | Office of the Inspector General |
| OIT | Office of Information Technology |
| OMB | Office of Management and Budget |
| SA | Solutions Architect |
| SIMS | Secure Information Management Service |
| TPO | Transformation Program Office |
| USCIS | U.S. Citizenship and Immigration Services |

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## Executive Summary

In 2005, U.S. Citizenship and Immigration Services (USCIS) embarked on an enterprise-wide program to transform its fragmented, paper-based business process to a flexible and efficient process supported by an integrated technical environment. In November 2006, we reported that USCIS had not finalized an approach for implementing the transformation, had not centralized information technology (IT) staff, and placed IT infrastructure upgrades on hold.

We conducted a follow-up audit to our 2006 report to determine USCIS' progress in implementing IT transformation initiatives. USCIS has established a structure to manage transformation initiatives, finalized acquisition and funding strategies, and established an approach to deploy new business and IT capabilities. In addition, USCIS has implemented pilot programs to test a selection of these capabilities. However, pilot success has been restricted by ineffective planning and limited implementation reviews. Business process reengineering efforts needed to support the transformation are incomplete, and stakeholder participation levels have fluctuated, resulting in inconsistent business and IT involvement.

USCIS has strengthened overall IT management by restructuring its Office of Information Technology (OIT) and realigning field IT staff under this structure. Further, OIT has improved IT governance functions and issued guidelines for local IT development. However, the Chief Information Officer (CIO) has been impeded by insufficient staffing and ineffective IT budget authority. In addition, although USCIS has made improvements to its IT infrastructure, current efforts are stalled for lack of funds.

We are recommending that USCIS: communicate its transformation approach to stakeholders; include stakeholder participation in defining requirements; assess pilot program results; develop an IT staffing plan; communicate IT development guidelines; and provide the CIO budget and investment authority for all USCIS IT initiatives. Such actions will be critical to support increases in benefits-processing workloads that may result from proposed immigration reform legislation.

## Background

Upon its inception on March 1, 2003, the Department of Homeland Security (DHS) assigned responsibility for delivering citizenship and immigration services to the USCIS. USCIS' mission is to secure America's promise as a nation of immigrants by providing accurate and useful information to its customers, granting immigration and citizenship benefits, promoting an awareness and understanding of citizenship, and ensuring the integrity of the immigration system.

Each year, USCIS receives more than 7.5 million immigration applications and petitions for a range of benefits, including employment authorization, lawful permanent residency, and naturalization and citizenship. To accomplish its mission, USCIS has more than 15,000 employees and contractor personnel in more than 250 offices worldwide, including asylum offices, application support centers, service centers, forms centers, a National Benefits Center, and a National Customer Service Call Center.

Generally, the USCIS immigration benefits process occurs in three stages—Apply, Adjudicate, and Issue—as depicted in Figure 1:

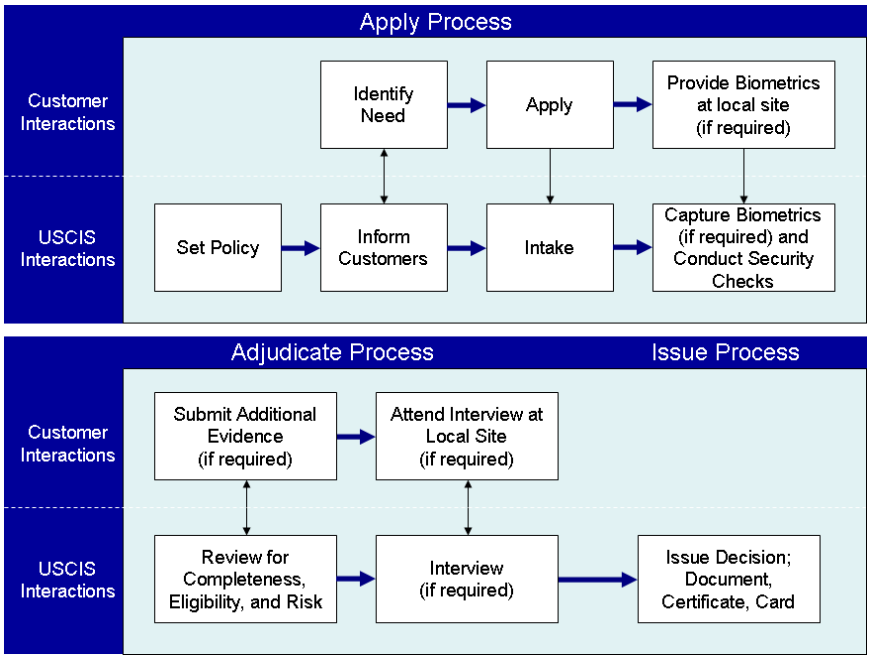


Figure 1: USCIS "As Is" Benefits Business Process

During the Apply phase, applicants submit paper forms to a USCIS service center or the Lockbox. These forms are checked for errors and then manually entered into a computer system for processing. Once USCIS receives the application fees, fingerprints are collected and other paper documents, such as birth certificates and drivers' licenses, are used to verify applicants' identity. These documents are kept on file and are manually correlated to the fingerprints and the application number.

In Adjudication, a USCIS adjudications officer determines whether an applicant is eligible for benefits under the *Immigration and Nationality Act*. Adjudication officers review the paper documentation submitted in support of an application or petition, and in some cases, interview the applicant. Adjudication officers schedule interview appointments electronically or by mailing forms to applicants. The supporting forms are often sent from a service center to a local office for processing, sometimes multiple times. Adjudicators examine the evidence received to determine whether the applicant is eligible for the benefit requested. When an application is approved, USCIS produces and issues evidence of that benefit such as a naturalization certificate.

USCIS recognizes that its paper-based processes hinder its ability to verify the identity of applicants, efficiently process immigration benefits, and provide other government agencies with relevant information on possible criminals and terrorists. In 2005, USCIS embarked on an enterprise-wide transformation program to transition its fragmented, paper-based operational environment to a centralized and consolidated operational environment, using electronic adjudication. USCIS established the Transformation Program Office (TPO) to oversee all transformation initiatives within USCIS. The transformation program's mission is to improve customer service and management of customer data by acquiring electronic capabilities and enabling IT. Figure 2 illustrates the TPO organization and its relationship to USCIS leadership and other USCIS offices.

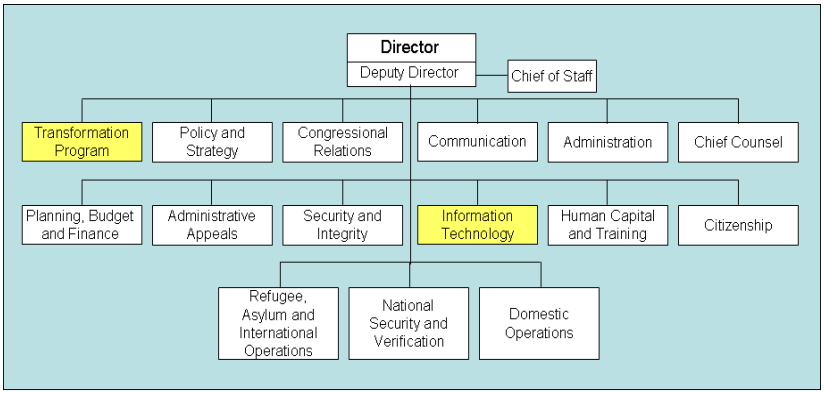


Figure 2: USCIS Organizational Structure

Because the transformation efforts rely on IT modernization, TPO and the OIT need to maintain an ongoing partnership to accomplish transformation goals. OIT's mission is to provide the USCIS enterprise with the IT services to fulfill its mission and achieve its goals and objectives. OIT accomplishes this by providing the appropriate IT infrastructure, governance, and IT processes.

In September 2005,[1] we reported that inefficiencies in the USCIS IT environment hindered its ability to carry out its immigration benefits processing mission. USCIS' largely manual, paper-based processes resulted in an ineffective use of human and financial resources to ship, store, and track immigration files. In addition, USCIS adjudicators used multiple, nonintegrated IT systems to review application forms and supporting data, which reduced productivity and data integrity and resulted in the following:

- A backlog of approximately 1.5 million cases,
- Tens of thousands of files that were missing or not easily located,
- Difficulties in verifying the identity of applicants and providing other government agencies with the information necessary to identify criminals and potential terrorists, and
- Benefits issued to applicants whose eligibility and potential risk to national security were not yet determined.

We conducted a follow-up audit in 2006 and reported that, although USCIS had made limited progress toward achieving its long-term

[1] *USCIS Faces Challenges in Modernizing Information Technology*, OIG-05-41, September 2005.

transformation goals, it continued to face similar challenges.[2] Specifically, USCIS had not finalized an approach for implementing the transformation, needed to improve strategic planning, had not centralized IT staffing, and had placed IT infrastructure upgrades on hold. Based on our work in 2005 and 2006, we recommended that the Acting Deputy Director, USCIS:

1. Develop a modernization strategy that includes short- and long-term goals, funding plans, and performance measures to guide USCIS entities in accomplishing their citizenship and immigration services missions.
2. Complete implementation of plans to centralize IT by placing all USCIS IT employees, budgets, and systems under the CIO authority and control.
3. Ensure that the centralized CIO operation and its IT transformation plans and systems initiatives are linked to and effectively support the consolidated USCIS strategy.
4. Review, analyze, and reengineer benefits adjudication activities to help eliminate duplication, transition from paper-based processes, better integrate systems, and provide systems access to the users who need it.
5. Finalize and implement plans to upgrade and standardize IT hardware and software systems to support reengineered processes and systems integration and access improvement initiatives.
6. Ensure representation and participation of users at the various levels from across USCIS in all process reengineering and IT transformation activities.

[2] *U.S. Citizenship and Immigration Services' Progress in Modernizing Information Technology*, OIG-07-11, November 2006.

# Results of Audit

## Business Transformation Showing Progress

The *Government Performance and Results Act of 1993*[3] holds federal agencies responsible for strategic planning to ensure efficient operations and effective use of resources to achieve mission goals.

Since our 2006 report, USCIS has taken a number of steps to improve its transformation program. Specifically, USCIS established a transformation program structure and governance approach. Further, USCIS developed a funding mechanism for its transformation efforts and finalized a plan for acquiring the support services and equipment necessary to implement new business processes and enabling technology. USCIS also completed a concept of operations for transformation and established a strategy for deploying the transformed business capabilities. Finally, USCIS implemented transformation program pilots. These actions have positioned USCIS to better plan and prepare for the next phase in the agency's transformation and ultimately achieve its goals of enhancing national security and fraud detection, providing timely and accurate customer service, and becoming more operationally efficient.

### Transformation Program Structure and Governance Approach Established

TPO has restructured its organization to provide a more centralized management of enterprise-wide transformation initiatives. As part of this revised structure, the TPO is headed by a new Senior Executive Service Coordinator to ensure effective transformation program oversight. As shown in Figure 3, the TPO coordinator reports directly to USCIS leadership, which should result in more efficient decision-making, executive-level awareness, and agency commitment to transformation success.

[3] *Government Performance and Results Act of 1993* (Public Law 103-62), August 3, 1993.

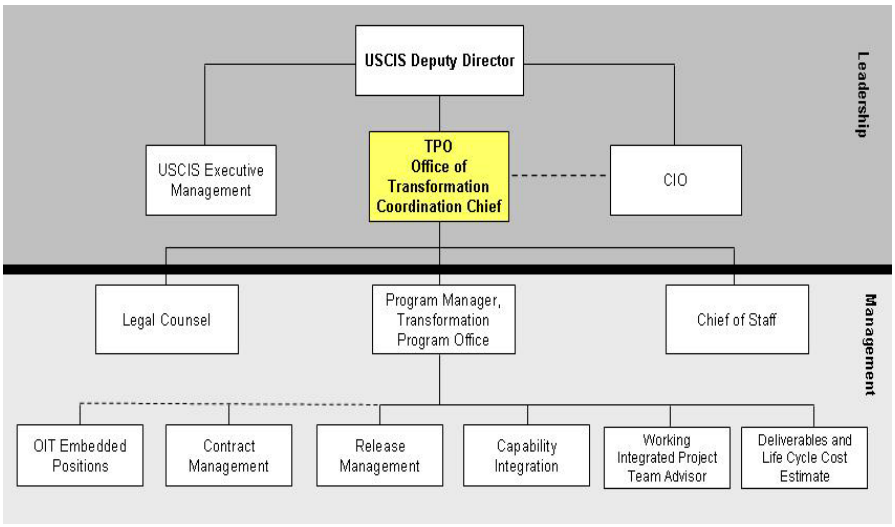


Figure 3: TPO Organizational Structure

The TPO has increased staffing over the past two years to better coordinate and manage transformation efforts. At the time of our audit, 36 of the TPO's 40 authorized positions were filled. The TPO expects to fill the remaining positions in the second quarter of Fiscal Year (FY) 2009. A number of TPO managers are attending certified project manager training to develop their program management skills.

USCIS has established a TPO governance structure as a framework for decision-making, authority, and accountability, and to ensure that all transformation project activities involve agency stakeholders. Within this structure, the TPO has defined roles, responsibilities, oversight, and reporting functions at the DHS level, agency level, and TPO level. Oversight of the entire program at the DHS level falls under the authority of the Investment Review Board, the Joint Requirements Council, and the Enterprise Architecture Board, which approve or review key documents such as the Acquisition Plan, the Program Plan, and the annual Expenditure Plan. To achieve the necessary coordination within the agency, a Transformation Leadership Team provides oversight of the transformation program. The TPO Project Management Team oversees strategic planning, acquisition planning, program management, and day-to-day program activities. These organizational relationships are depicted in Figure 4.

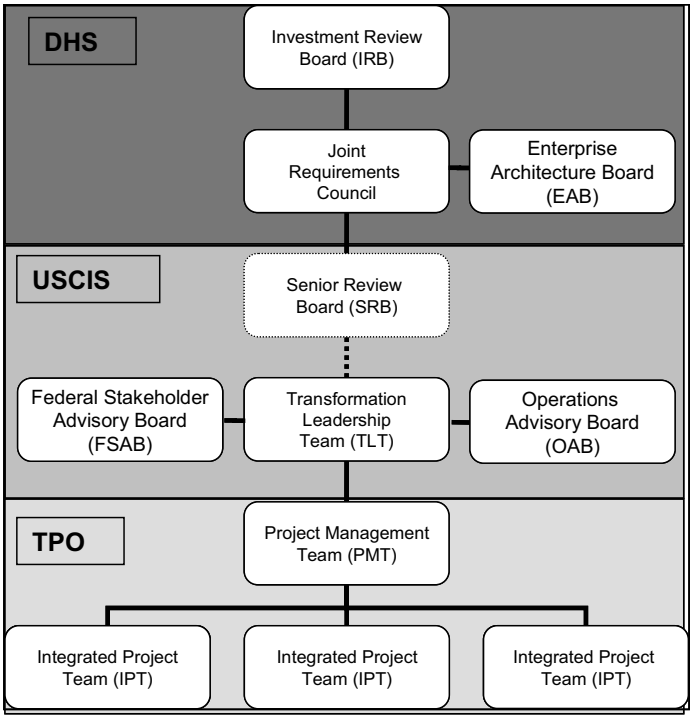


Figure 4: Transformation Governance Structure

Under the Project Management Team oversight, integrated project teams (IPT) lead specific transformation projects for business, technical, and release activities. Each team includes a cross-functional membership of agency business and IT personnel who are responsible for their assigned project's plans, schedules, costs, and performance. As of December 2008, 44 representatives from the TPO, Domestic Operations, OIT, National Security and Records Verification, and Refugee Asylum and International Operations were members of the transformation integrated project teams. These representatives are detailed to work with the TPO full-time for a period of 12 to 18 months.

The TPO implemented the IPT approach to increase stakeholder involvement and ensure appropriate representation from USCIS subject matter experts. The TPO expects this structure to enhance its existing staff resources by bringing needed skills and expertise from operational directorates and the CIO's office. In turn, project decisions can be made by members with appropriate business or technical knowledge and who best represent the needs of users who will be affected by new processes and systems. According to TPO management, the use of IPTs over the past two years has proven to be

a successful method for managing large-scale efforts with wide-spread impact on agency processes and systems.

**Transformation Funding Secured and Acquisition Plan Finalized**

Since our 2006 report, USCIS has secured funding for transformation program expenditures. USCIS is almost entirely funded by fees paid by applicants seeking immigration benefits. A new schedule for premium processing fees went into effect in July 2007 that incorporates the anticipated costs of the transformation effort. According to TPO leadership, the agency will structure the transformation in a way that can be supported by this new line of funding.

TPO also developed an acquisition strategy in January 2007 to provide a road map for the agency to acquire the resources, such as program support and IT services, necessary to implement the transformation. According to TPO management, the strategy reflects industry best practices, employs an incremental development approach, and will use strategic sourcing to acquire the needed capabilities. A key element of the strategy is the reliance on an IT services provider to develop the enabling IT operational environment for the electronic adjudication process. Based on the transformation funding plan and acquisition strategy, management approved a formal Acquisition Plan in October 2007, and awarded a contract for a transformation IT service provider, referred to as the Solutions Architect (SA), in November 2008.

**Concept of Operations Completed**

USCIS completed a concept of operations for transformation in March 2007. This document describes USCIS' current paper-based business environment and proposed end-state vision. The end-state represents a person-centric, account-based business model that is a clear departure from the current paper-based operations. In this model, USCIS will manage customer accounts and adjudicate benefit requests in an integrated technical environment, resulting in a higher level of service to applicants and a streamlined process for adjudicating all customer benefits. To establish a common vision, feedback was gathered from USCIS management and stakeholders.

The agency has used the document as a tool to view how business, information, and technology solutions will interact to support the

future operational environment. With this document, USCIS has gained a common understanding of the person-centric, account-based vision as the foundation for transformation. Once this model is implemented, the agency expects to gain significant benefits, such as greater operational efficiency, improved customer service, and enhanced national security.

## Deployment Strategy Established

USCIS has developed a multi-year strategy for deploying the capabilities needed to achieve the transformed USCIS business processes and support IT. This strategy calls for creating new business processes and systems incrementally over a six-year period. To establish this approach, the TPO analyzed USCIS' transactions, such as an application for naturalization, and grouped them into four major lines of business. Based on this analysis and the sequence in which customers usually file for benefits, TPO plans to implement reengineered business processes in increments that correlate with the business lines, beginning with citizenship. The needed capabilities for the remaining three increments will be acquired in stages, as shown in Figure 5.

| Increment | Business Functions | Timeframe |
|---|---|---|
| One | **Citizenship** (naturalization, military naturalization, and international adoptions) | FY 2009 |
| Two | **Immigrant** (permanent residence) | FY 2010 – FY 2011 |
| Three | **Humanitarian** (refugee, asylum, parole, temporary protected status) | FY 2012 |
| Four | **Non-Immigrant** (non-immigrant workers) | FY 2013 |

Figure 5: Transformation Phases with Timeframes as of March 2008

This approach will allow the agency to leverage work done in each increment to better define the requirements and scope for succeeding increments.

## Transformation Program Pilots and Proof-of-Concept Implemented

USCIS implemented three pilot programs and one proof-of-concept[4] to test the viability of a number of fundamental IT system capabilities required for the transformation. Efforts supporting electronic adjudication processing include the Integrated Digitization and Document Management Program (Digitization), Biometric Storage System (BSS), Enumeration, and the Secure Information Management Service (SIMS) proof-of-concept. These efforts, as shown in Figure 6, have increased awareness of the level of effort required to implement each capability and the long-term funding commitments needed to execute the transformation program.

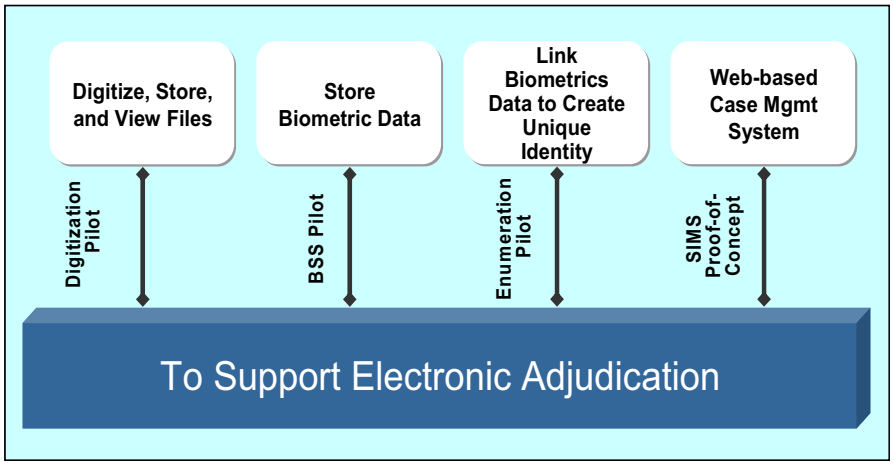


Figure 6: USCIS Pilots and Proof-of-Concept

### Integrated Digitization and Document Management Program

The Digitization pilot is intended to test the process of scanning files and the adjudicators' use of digitized images in their day-to-day work. The Digitization pilot was implemented in September 2006 at the Records Digitization Facility, the contractor-led facility that scans documents into electronic format. Files being scanned include a combination of closed files, active files, new Temporary Protected Status applications, and documents filed by applicants for inter-country adoption. As of February 2009, the facility had scanned more than 600,000 paper files.

[4] A proof-of-concept is a methodology to determine whether a product, technology, or information system is viable and capable of solving an organization's particular problem.

The Digitization pilot also is testing technology for storing electronic files in a single repository called the Enterprise Document Management System (EDMS). The EDMS initiative has enabled USCIS to begin transferring millions of paper records to an electronic format and to provide multiple users with simultaneous access to the digitized electronic files. EDMS has approximately 7,900 authorized users. External stakeholders, such as U.S. Immigration and Customs Enforcement, have been able to access EDMS, helping to support requirements within the E-Government Act of 2002.

The Digitization pilot has provided several tangible outcomes for USCIS. First, it has given USCIS the opportunity to evaluate the benefits of having multiple-location access to digitized files for adjudication and enforcement purposes. Second, it has provided the basis for the agency's ongoing digitization effort, which is intended to reduce the burden of managing paper records. Third, it has enabled USCIS to provide adjudicators with electronic copies of files, thus reducing the time spent pulling and shipping files. Finally, the underlying digitization and document management technologies used within the Digitization pilot can be used to develop new capabilities for the integrated operational environment.

**Biometric Storage System**

BSS was designed to provide a way to store, retrieve, and reuse biometric data. The capture of biometric and biographic data at the customer's initial application, coupled with standards for enumeration and unique identity, are critical elements in USCIS' transformation. Once this capability is implemented, USCIS expects that BSS will improve its biometrics management. Additionally, the storage of biometric data will mean that applicants do not have to appear in person to have new fingerprints taken or to create a new benefit card. These benefits will increase convenience to the customer and reduce processing costs to USCIS.

The BSS pilot was placed on hold in spring 2008 while the system was undergoing a complete review by the OIT to determine whether a different application development effort may be required to meet USCIS long-term needs. As of 2009, the pilot is being transitioned to a more centralized approach using an account-based customer profile management service, which will better enable identity management functions.

**Enumeration Services**

Deployed in July 2007, the Enumeration Services pilot is a joint effort by USCIS and the U.S. Visitor and Immigrant Status Indicator Technology (US-VISIT) program.[5] The pilot establishes a permanent unique identifier for persons upon their first contact with USCIS when applying for benefits requiring fingerprint collection, such as permanent residence or adoption. Specifically, an enumerator is created upon submission of the applicant's ten fingerprints and a core set of biographic data. Each time a person submits a subsequent benefit application, the enumerator is used to identify and validate the applicant, as well as to match with previous applications.

"Locking in" an applicant's identity is necessary to ensure the integrity of the benefit system by reducing fraudulent applications and identity theft. In the past, USCIS has associated an alien file (A-file) number to an individual, but that association is not unique because A-files are not created for all types of benefit applications and each person can submit multiple applications. Therefore, it is difficult to ensure that a person who has previously been refused a benefit does not reapply using another name. According to the TPO, the Enumeration Services pilot has proven to be effective in verifying identity because the enumerator establishes an enterprise-wide unique personal identifier.

**Secure Information Management Service**

SIMS was deployed in July 2007 to test a web-based case management system using commercial software. This pilot, also known as the Inter-Country Adoptions proof-of-concept, is meant to (1) establish a person-centric view of all individuals involved in an adoption case, (2) migrate to electronic processing, and (3) implement business rules that help standardize case processing and adjudication. SIMS was deployed in two domestic and three international offices and is used by approximately 50 active users to adjudicate adoption cases. Adoption cases were chosen for the pilot because of their relatively low volume workload.

One operational objective of SIMS is to better understand the person-centric/account-based management concept of operations.

[5] The US-VISIT program collects, maintains, and shares data on selected foreign nationals entering the United States at air, sea, and land ports of entry.

This has been achieved through the software's account structure, which creates a person-centric system. Additionally, this proof-of-concept has verified that an enumerator, the unique identifier for each individual, supports the USCIS person-centric business process. According to the TPO, SIMS is a major step toward implementation of a modern processing model. At the time of our review, adjudicators had processed 71, or 17%, of the 408 active cases using SIMS. As a result, the pilot was successful in meeting one of its primary objectives—to demonstrate adoption case-processing capability using a case management system. TPO expects this proof-of-concept to be a fundamental step in the development of the overall case management solution.

## Future Concerns for Business Transformation

Previous initiatives to reengineer business processes and modernize technology failed because USCIS had not executed them in an integrated manner with sufficient stakeholder involvement. Although USCIS has made progress in advancing its business transformation, some of these problems persist. Specifically, pilot efforts have been of limited value, process engineering efforts have not been completed, and stakeholder coordination has been limited.

### Transformation Pilots Yield Limited Value

Office of Management and Budget (OMB) Circular A-130 Revised[6] encourages agencies to use pilot projects to ensure appropriate technology investment. According to the USCIS Transformation Program Acquisition Plan, program pilots should create IT capabilities that can be used to support the full transformation. Yet, as we reported in November 2006, USCIS had repeatedly developed plans to pilot its transformation business processes and IT systems but had not fully implemented any of those plans. Although USCIS has now implemented three pilot programs to evaluate potential business process and technology solutions, successful execution of these pilots has been limited by ineffective planning, management challenges, insufficient staffing, and limited post implementation performance reviews.

#### Planning for Pilot Projects

Transformation management and stakeholders do not have a clear end-state vision for pilot efforts. According to TPO leadership, the future integrated environment will leverage current pilots and the proof-of-concept where appropriate. However, specific plans for which pilot capabilities will be used or integrated are not known. For example, most program managers we spoke to were not aware of the overarching plans for pilot activities beyond the scope of each current pilot phase. Specifically, program managers were not sure how the agency planned to use the pilot capabilities or to what degree each pilot was meeting its expectations and goals.

Plans for piloted systems are also contingent on the SA contract solution. Target decommission dates for pilot systems are "to be determined" and depend on the SA's approach. USCIS encouraged

[6]Transmittal Memorandum 4, *Management of Federal Information Resources*, November 28, 2000.

the SA to use pilot efforts to facilitate the rapid deployment of capabilities. However, the SA is not required to incorporate any of these pilots or the proof-of-concept into its solution. The TPO program managers and stakeholders did not have plans defined for the next phase of work. For example, one TPO manager stated that there are no formal plans for EDMS beyond the current release. At that point, development plans will cease until the SA determines whether the agency should incorporate the pilot concept into its future operating environment.

Consequently, plans for the future use of the piloted systems were not effectively communicated within the TPO or articulated among agency stakeholders. Agency stakeholders also question funding and ownership arrangements. For example, the OIT remains unclear as to what proportion of IT expenses will be funded through the SA contract. The Records Division has questions regarding the ownership of pilot systems, such as EDMS, after the SA contract is awarded. Feedback received from field site visits and interviews with business unit management confirmed a high degree of uncertainty regarding the future of the transformation environment. Specifically, a post implementation review of the Digitization pilot in October 2007 stated that users feel that the TPO should do more to provide managers and employees with "bigger picture" information. Users also wish to receive more information about pilot implementation timelines and roadmaps and how they will impact USCIS employees.

**TPO Management Practices**

A transformation program overview, dated December 2007, states that the TPO is managing a series of pilot programs that will be integrated into an overall electronic adjudication system. Further, a number of TPO plans state that certain pilots will be a "phased rollout of technology," with system interfaces and integration planned between primary pilot systems and capabilities. However, the day-to-day management of the pilot programs was difficult during initial releases, due to the TPO's lack of experience managing pilot programs. As a result, pilot releases experienced delays and systems integration efforts were scaled back, delayed, or postponed until the next phase of transformation.

One primary element of transformation systems integration is the use of an existing OIT tool, the Enterprise Service Bus. This tool was to be used to establish a channel of communication to enable

data sharing between multiple transformation pilot systems. For example, integration between SIMS and EDMS was originally planned for September 2007 to facilitate a more streamlined electronic workflow process using digitized files. However, the SIMS interface with EDMS was not implemented as planned, and is currently not scheduled for future releases.

Additional interfaces using the Enterprise Service Bus were planned for September 2008 to establish a connection for two other pilot systems to the payment processing center (the Lockbox Service). This integration point would allow payment records and application data from the Lockbox Service to be shared with transformation pilot systems such as EDMS. However, the Lockbox interface was delayed due to changes in requirements and schedule. As a result, the planned integration between the Lockbox and the two pilot systems was delayed until a deployment release scheduled for spring 2009.

Transformation program management faced challenges during pilot implementations due to ineffective planning and lack of experience with project management practices. Specifically, some pilot programs did not fully employ end-to-end system lifecycle practices such as completing requirements gathering for system capabilities. Rather, pilot program estimates were overly optimistic. For example, an EDMS pilot release was delayed by over two months due to a lack of detailed end user requirements for system functionality, as well as security and privacy issues. Similarly, TPO management has stated that certain processes, such as OIT's IT procurement procedures, were not well understood or consistently followed during early phases of pilot planning. For example, several pilot program managers were initially unaware of the timeframe of paperwork required to complete an IT procurement request. As a result of these challenges, transformation pilot and proof-of-concept programs encountered schedule delays, scope changes, and reductions in capability integration.

Finally, day-to-day management practices varied across each pilot program. Although the TPO established an Increment Management Division at the end of FY 2006 to oversee pilot programs, formal project management practices were lacking. For example, there was no formal process for comprehensive status reporting. Instead, pilot status reporting was often done independently by the contractor supporting the pilot rather than by the TPO lead. In February 2008, TPO instituted a standardized process for weekly status reporting

using industry practices to capture and track project schedules, costs, issues, and risks. Prior to this time, program level accountability and awareness of pilot deployment status was lacking.

**TPO Management Staffing Challenges**

The TPO leadership stated that ongoing difficulty in hiring and retaining managers within the transformation program contributed to the reliance on contractors during pilot planning and execution. Transformation business and IT stakeholders stated that frequent changes in project managers contributed to a lack of continuity in pilot management. For example, the EDMS pilot initiative has had three different program managers, resulting in a heavy reliance on the Records Division management, who began the digitization effort. Stakeholders said that as a result of such frequent changes, the program managers are not always abreast of current activities and status. Further, as project managers changed positions, the vision for the pilot processes and goals did not always remain the same, resulting in a loss of continuity.

**Inability to Determine Pilot Success**

USCIS has not been able to capture enough of the knowledge gained or measure and communicate the successes and failures of the pilots. USCIS has developed performance measures for the transformation programs and the program pilots. However, program pilot efforts were conducted without consistent or timely evaluation, which has compromised the TPO's ability to leverage work completed or manage future transformation phases of work effectively.

**Performance Measures Are Defined**

USCIS has developed high-level performance measures for the transformation program. Additionally, USCIS aligned its transformation program capabilities and goals with USCIS goals, as documented in the Transformation Program Strategic Plan in April 2007. Since that time, the transformation program has sought to improve performance management by defining high-level program goals and pilot performance measures. For example, Table 1 shows transformation performance measures established and documented in the DHS Future Years Homeland Security Program.

| Measure | FY07 | FY08 | FY09 | FY10 | FY11 | FY12 |
|---|---|---|---|---|---|---|
| % of USCIS business processes redesigned | 0% | 5% | 62% | 78% | 100% | 100% |
| % of new USCIS workload received and adjudicated via transformed processes and within USCIS' new case management system | Baseline | 5% | 26% | 62% | 87% | 100% |

Table 1: DHS Homeland Security Program Performance Measures

Additionally, the Transformation Program Strategic Plan includes 17 performance indicators for near-term and long-range evaluation of the transformation program's success. These indicators evaluate customer satisfaction, process efficiency, system access, and the use of automated capabilities through transformation program efforts.

The agency also identified five program-level measures for FY 2007 to evaluate the program during the planning phase. Table 2 identifies these parameters and the threshold, objective, and actual achievement for each. According to transformation leadership, the TPO achieved all five of its objectives.

| Performance Measure | Objective | Achieved |
|---|---|---|
| 1. % adoption cases processed in SIMS | 5% of cases | 5.4% of cases |
| 2. % satisfied with EDMS images | 85% satisfaction | 89% satisfaction |
| 3. % of files submitted electronically | 5% e-filed | 5% e-filed |
| 4. # of agencies accessing EDMS | 1 external agency | 1 (ICE) |
| 5. SIMS system availability | 98% availability | 100% availability |

Table 2: FY 2007 Transformation Program Performance Measures

At the project level, the TPO developed performance measures for three of the four pilot efforts. Specifically, the TPO defined 21 performance measures for SIMS and Enumeration services to evaluate the technology, system usage, user satisfaction, training, communication, and project and change management. Likewise, the TPO identified 22 performance measures for the Digitization pilot, including EDMS.

According to TPO leadership, as of 2008, the performance measures are captured in the existing architecture repository and are linked to USCIS strategic goals and the Business Reference Model.[7] This link should provide a connection between performance goals and the investments to improve USCIS decision-making abilities. According to the TPO, as the transformation is completed, more specific metrics will be created and deployed. Specifically, the SA plans to include performance measures for future business solution delivery.

**Pilot Performance Not Evaluated Timely**

Although pilot performance measures were developed, USCIS has not consistently performed post implementation reviews to determine the impact or success of its IT systems or business processes. OIT management has stressed the importance of conducting reviews after systems are implemented to identify potential issues or improvement opportunities. For example, a wide range of infrastructure impacts may be detected on the network, field servers, and desktops due to the large files transferred over the network for the EDMS system. However, we found that post implementation reviews for EDMS have not occurred since 2007.

TPO program managers stated that lessons learned from pilot releases either had not been captured or were yet to be completed. Further, TPO leadership stated there has been no overarching post pilot review, nor is there an enterprise-wide repository to capture or share individual pilot lessons across the program.

Regular post implementation reviews were not conducted because of the TPO's focus on other priorities and the lack of resources to perform them. TPO management stated that reviews had not yet been completed because of the focus on preparing the SA plans. For example, an operational analysis was planned for an EDMS release, but the release date was delayed. Subsequently, the TPO learned that the SA contractor would evaluate EDMS for its potential use as part of the new environment. Thus, the TPO decided that it would be redundant to perform an operational analysis. Without consistent or complete pilot post implementation reviews of pilots, transformation management cannot identify impacts on the current environment or plan improvements for future releases.

[7] A Business Reference Model provides a view of the agency's lines of business, including its internal operations and the services it provides to citizens.

USCIS has spent $28 million on the transformation pilot programs thus far. Pilot success, however, has been measured by intangible benefits, such as experiences gained, rather than by potential cost savings. TPO leadership stated that the pilots have provided the TPO with experience managing agency-wide initiatives. Pilots have also helped to demonstrate the level of effort and associated costs required to implement the business processes and technologies necessary to meet transformation objectives. For example, experience gained in digitizing files has revealed process intricacies for scanning, storing and viewing electronic files. Additionally, the use of EDMS has illustrated how long it takes to load a digitized file on end-user desktops, as well as the complexities involved in adjudicating cases with digitized files rather than paper. However, two of the four pilot and proof-of-concept efforts have not yet achieved cost savings. For example, in 2007 EDMS estimated benefits were less than 80% of the total estimated life cycle costs, resulting in negative quantitative net benefits. As a result, pilots may be abandoned before they achieve measurable results, such as cost savings or process improvements.

**Process Engineering Efforts Not Completed**

According to OMB Circular A-130 Revised, agencies should simplify or redesign work processes before implementing new technology.[8] In 2006, we reported that the lack of an overarching vision led to disparate business process reengineering initiatives that were narrowly focused and were not sufficiently coordinated or completed.

Since that time, USCIS has made progress in defining high-level business processes. However, the efforts to date provide only a starting point for transformation business process engineering. Without effective business process reengineering, USCIS risks developing new IT systems that support ineffective and outdated processes.

The TPO has taken steps to conduct business process reengineering efforts with a more structured approach. Specifically, the TPO completed a process analysis in early 2007 that examined the "as-is" environment (how existing operations work and perform) and the "to-be" environment (a roadmap for proposed IT initiatives). The resulting Business Case Analysis provided the agency with

[8] Transmittal Memorandum 4, *Management of Federal Information Resources*, November 28, 2000.

alternatives for implementing the TPO's vision. The primary objectives of the "to be" operations were to lock in an applicant's identity early in the process; support the electronic submission of applications, appointments, and supporting documentation; and provide tools for USCIS adjudicators to manage workload and analyze case data. The results of this effort were captured in the USCIS Business Reference Model in June 2007. Figure 7 shows these high-level requirements.

| Process Engineering Efforts | | |
|---|---|---|
| Month and Year | Business Process Initiative | Results |
| February 2007 | Business Case Analysis | Provided an overview of three alternatives for implementing the TPO's vision and goals. Led to the selection of the process alternative that will drive future Business Process Reengineering work. |
| June 2007 | Refined Business Reference Model (BRM) | Further defined the target business processes for a Hybrid process alternative. Includes workflows, process map, description of forms, interfaces, organizational entities, technology, and impacts on performance. |
| October 2007 | Enterprise Segment Activity Roadmap (ESAR) | Identified the business segments and corresponding activities for Increment 1-Citizenship. Defined high-level requirements. |

Figure 7: Process Engineering Efforts Since 2007

According to TPO management, these process reengineering efforts helped USCIS select the business process alternative that best met transformation goals. In addition, these efforts provided the agency with tools and information to further develop detailed business process definition and requirements.

However, the process reengineering efforts are limited in scope and level of detail. The Increment One Enterprise Segment Activity Roadmap defines high-level requirements based on the business process analysis efforts completed. This document includes each business process segment and its corresponding activities. According to the TPO, the Enterprise Segment Activity Roadmap is a key document that will be used as a guide to develop detailed business and IT services necessary to realize end-to-end electronic business operations. However, most transformation stakeholders stated that it was not detailed enough to drive business process implementation. For example, the document contains high-level, generic business processes for the citizenship process and account access requirements, but does not provide enough detail to sufficiently describe the steps of the adjudication process.

### Business Process Reengineering Next Steps

TPO leadership describes the process reengineering efforts to date as only a starting point for the SA and stated that the SA will develop a more complete process definition as part of the transformation effort beginning in FY 2009. As part of this work, the TPO plans to implement process reengineering efforts in phases associated with each increment of work, as outlined in the deployment strategy. Starting with Increment One, Citizenship, the TPO has begun efforts to further define the future account services business concept. For this effort, a working group has been assembled to consider elements of customer-centric processing and individual and organization accounts. For example, the group is currently looking at future business requirements related to setting up an individual's account and account number.

## Stakeholder Participation Limited

We reported in 2006 that USCIS users felt disengaged and isolated because technologies were being developed and processes redesigned without their input. Since that time, USCIS has developed several strategies for increasing stakeholder involvement in its transformation planning efforts. One key stakeholder participation approach, established in January 2007, is the use of IPTs to involve business owners and subject matter experts in transformation activities. However, in 2008, transformation leadership stated that the lack of sponsorship continues to be a risk because TPO's ability to implement transformation is limited by its dependence on agency and stakeholder commitment.

Accordingly, the transformation strategy states that the TPO will "proactively engage stakeholders by identifying, understanding, and influencing key individuals or groups to increase change readiness and thereby facilitate a successful implementation." However, the TPO has not consistently achieved buy-in and agency-wide support. Further, ineffective collaboration between TPO and the OIT has created a growing risk for transformation success.

### Lack of Consistent Stakeholder Involvement

Despite efforts to engage agency stakeholders, the TPO has not been able to obtain consistent membership in working groups, such as IPTs. For example, a SIMS pilot IPT was tasked with identifying requirements. However, the group did not accomplish this task

because members have not attended the meetings consistently. When subject matter experts do not attend, requirements cannot be adequately vetted or finalized.

The TPO recognizes that, in the past, field office involvement with transformation planning was limited and largely unsuccessful. To address this issue, in October 2008, TPO developed a comprehensive Stakeholder Outreach Plan, which provides a general overview of transformation stakeholders and the approach for engaging them in transformation. The plan indicates that outreach efforts will include office visits, focus sessions, and general communication to reach a cross-section of senior leadership and employees, informing stakeholders about the transformation and establishing relationships with potential transition managers.

**TPO and OIT Partnership Needs Strengthening**

USCIS business units and IT stakeholders are closely aligned in setting the direction and managing the transformation effort; however, collaboration and effective partnership between TPO and the OIT could be improved. TPO and OIT management stated that a difference in their approaches to the transformation has generated ongoing conflict between the two organizations. Prior to 2005, initial transformation efforts resided within the OIT as part of an IT modernization effort. However, as of 2006, the program was restructured as an all-encompassing "business-driven" transformation, meant to incorporate agency-wide business and IT elements. The impact of this change in direction has hindered effective partnership. The establishment of the TPO in 2005 moved control of the transformation effort outside of CIO authority.

Although the CIO is closely aligned with the TPO Chief in setting the direction and managing the transformation effort, collaboration and partnership in executing the transformation program has at times been ad hoc or unproductive. The CIO is a member of the Transformation Leadership Team, which provides oversight of the transformation program. According to the Transformation Program Management Plan, the CIO represents the interest of the USCIS technical environment, ensuring the alignment of strategic direction of the TPO and OIT, the development of joint capabilities, and the budget alignment for common efforts. Primary responsibilities of the CIO include advising the TPO on transformation requirements, their impact on current and future technical systems, and necessary changes based on the direction of the technical strategic environment

set by the IT Strategic Plan. However, OIT officials stated that the CIO's roles and responsibilities are not defined to a level that would support day-to-day execution of the transformation.

Further, the CIO stated that conflicting IT direction often requires escalation to agency leadership for resolution. For example, the USCIS IT development life cycle requires that IT developed should accommodate those with disabilities.[9] However, TPO pilot systems, such as SIMS, were not originally aware of this requirement. Once the TPO was aware of the requirement, a waiver was requested to deploy the pilot system. However, for the next pilot release, the CIO provided conditions for which pilot systems will meet IT controls and standards. After the SIMS application was developed, the TPO requested a waiver to the requirement.

According to TPO and OIT management, the lack of coordination between the two offices has caused delays in decision-making and contract procurements. For example, to extend contract support for the SIMS pilot, the TPO had to obtain OIT approval. However, the CIO would not grant an approval based on unresolved system development testing and reporting requirements. As a result, the TPO elevated the paperwork to agency leadership in order to move forward with the contract.

To increase collaboration and alignment, at least three full-time OIT staff members are embedded within TPO. However, the relationship between the TPO and OIT remains a point of contention. The working relationship between the two has evolved on an "as-needed basis" rather than as a steady partnership. This is evidenced by the ad hoc nature of OIT's involvement in pilot program activities. For example, deployment plans for pilot programs did not include realistic timeframes for procuring IT equipment or services. As a result, pilot initiatives, such as Scan on Demand within the Digitization pilot, were delayed.

Additionally, TPO pilot programs did not consistently comply with OIT testing procedures. For example, the OIT recommended independent verification and validation (IV&V) testing of TPO pilot programs early during the testing stage, specifically on the scanning

[9] Section 508 compliance requirements are outlined by the DHS Office on Accessible Systems and Technology for Web-based Intranet and Internet Information and Applications. *Department of Homeland Security Acquisition Instruction/Guidebook #102-01-001: Appendix B*, November 2008.

resolution requirements. However, TPO did not comply with such testing for pilot projects during initial pilot phases. Further, the TPO permitted piloted systems to be implemented without completing this step in order to meet schedule demands. In these cases, the OIT has performed testing after initial releases have been deployed or at the end of the pilot increments.

# IT Management Strengthened

USCIS has made progress in strengthening IT management to support the agency's citizenship and immigration services mission and its transformation efforts. Specifically, OIT developed a new organizational structure to facilitate IT services, and it has realigned field IT staff under the CIO. It has also improved IT governance by completing an IT Strategy that aligns its strategic direction with the USCIS Strategic Plan, an Enterprise Architecture (EA) framework to support and guide agency programs and IT investments, and an IT life cycle methodology.

## OIT Organizational Restructuring

At the time of our audit, a new OIT organization structure was being implemented. This new structure includes a new Chief Technology Officer position. The CIO also plans to align the agency's classified systems under the Chief Technology Officer to increase focus on IT security efforts. Additionally, the OIT is consolidating the IT Services Engineering and Enterprise Architecture offices into an Enterprise Architecture and Engineering Division to provide systems engineering support through standard tools, guidance, and EA policy and administration. Finally, the existing Chief of Staff's role was expanded to include IT functions such as capital planning and investment control and earned value management.[10] According to the CIO, this organizational structure will better align IT services with USCIS' strategic goals.

## Field IT Staff Realigned

According to DHS Management Directive 0007.1,[11] the CIO of each DHS component is responsible for managing its IT budgets and resources. We reported in November 2006 that, although USCIS had made progress in realigning its IT employees to report to the CIO, centralization of the remaining IT employees, as well as IT assets and budgets, was on hold pending organizational improvements.

[10] Earned value management is a project management tool that compares completed work to expected outcomes.
[11] Department of Homeland Security Management Directive 0007.1, *IT Integration and Management*, March 2007.

Since then, the OIT has realigned IT field staff under a centralized OIT organization structure. According to the CIO, 300 IT field staff now report to the CIO through a defined hierarchy within the OIT Service Support Division. This realignment has increased the CIO's ability to centrally manage staff resources and ensure that field offices follow standard IT policies and procedures.

To ensure a smooth transition to the new structure, realigned staff positions, roles, and responsibilities remain the same where possible, and they continue to provide IT services to meet field office user needs. In some cases, program analysts with IT-related duties were reclassified to a different job series on a case-by-case basis to align their duties with their positions. At the time of our audit, a small number of IT positions remained within field business offices outside of the CIO organization. However, the USCIS Acting Deputy Director has instructed USCIS business offices to hire only non-IT staff going forward.

The staff realignment has been an effective means to improve the CIO's oversight of agency IT initiatives. In many instances, this realignment included field staff who were hired to build IT systems to meet local business needs. Although these practices have long been common among USCIS offices, OIT management stated that the realignment effort has decreased local IT development initiatives. As a result, the realignment represents an essential step in establishing centralized IT management.

## IT Governance Instituted

USCIS OIT has taken steps to improve IT oversight and control of the historically decentralized USCIS IT environment. Specifically, the OIT instituted a governance structure and processes, completed an IT strategic plan, developed an EA framework, and implemented a system life cycle management approach.

### Governance Structure Developed

The USCIS CIO has sought to improve IT governance functions by using agency-wide review boards and processes as a formal method to review IT investments. The governance structure includes DHS-level and USCIS-level review boards to achieve oversight of investments. Supporting processes are in place to ensure that USCIS IT systems development efforts undergo the necessary

review and approval. For example, according to OIT management, requirements for a new IT system or changes to an existing system are vetted through all relevant USCIS business units to reach an agreement on plans and expenditures and must receive approval from the USCIS Change Control Board. This structure ensures that stakeholders are involved, requirements are gathered, and money is spent wisely.

The OIT has also implemented a Citizenship and Information Governance Authoring and Retrieval system to maintain USCIS IT policies and procedures associated with IT service requests, change requests, and other IT life cycle related processes or forms. This tool assists OIT staff in drafting new governance policies.

**IT Strategic Planning Completed**

According to OMB Circular A-130 Revised, an agency's IT plan should support its strategic plan and should describe how information resources will be used to help accomplish the agency's mission.[12] We reported in 2006 that OIT had not clearly linked its IT objectives and initiatives with USCIS' goals to ensure that technical solutions and services meet agency needs effectively.

In June 2008, USCIS OIT completed an IT Strategy that aligns its enterprise IT strategic direction with the USCIS Strategic Plan for FY 2008–FY 2010 and the USCIS EA. According to the CIO, each objective in the IT Strategy aligns with one or more of the USCIS strategic objectives. Thus, fulfilling an OIT strategic objective completes a step toward USCIS enterprise strategic objectives. The strategy ensures that the alignment is realized through the use of common elements in the plans, such as vision, mission, and strategic goals and objectives.

Currently, OIT is developing an implementation plan for its enterprise IT Strategy, including the formulation of supporting activities for each strategic objective. The CIO expects that these efforts will help steer the supporting activities and provide a basis for future revisions of the IT strategy.

[12] Transmittal Memorandum 4, *Management of Federal Information Resources*, November 28, 2000.

## Enterprise Architecture Matures

USCIS has developed an EA framework to support and guide agency programs and IT investments. The OIT placed a high priority on developing its EA in alignment with the DHS EA, and created an EA Branch staffed with six full time employees, plus contract support, who serve as architects. According to the CIO, the USCIS EA has matured to a point where it can be populated to support agency programs such as the USCIS transformation.

In addition, the transformation program has developed business process tools to complement the USCIS EA. Specifically, the Enterprise Segment Activity Roadmap is a primary transformation document that defines the agency's business processes to date. The document includes business process activities associated with citizenship benefits processing. According to the OIT, it has been instrumental in assisting with populating the Business Reference Model for the USCIS EA. Collaboration between the TPO and OIT to define the Business Reference Model has been a priority for the past two years. Going forward, OIT will continue to leverage TPO process reengineering efforts to further define the USCIS EA.

A third party assessment[13] of the USCIS EA found that USCIS has a solid EA framework rated at "maturity level 3," which means that the EA is capable of meeting business needs. This framework will help ensure that the EA will be sufficiently mature to guide design and development of IT solutions related to the USCIS transformation effort.

## IT Life Cycle Methodology Established

In June 2007, USCIS implemented a formal IT life cycle management approach to be used as a framework for developing and maintaining all IT systems within USCIS. The framework emphasizes the entire life cycle rather than focusing solely on system development. Since the framework was institutionalized, all USCIS technology solution implementations, software development, and infrastructure-related projects must comply with related processes and guidelines. According to the IT System Engineering Branch, this approach has helped OIT to ensure that processes, documentation, and technology adhere to organizational standards and best practices.

[13] MITRE Corporation, "United States Citizenship and Immigration Service Enterprise Architecture Assessment," October 17, 2008.

# IT Management Challenges Remain

Despite the progress made to improve IT management functions, significant challenges remain for the OIT to carry out centralized, enterprise-wide IT management responsibilities. CIO staffing remains inadequate to administer support and guidance across all USCIS offices, and realigned staff received insufficient support. Further, effectively managing the array of locally developed IT systems has been difficult. Although the CIO has established guidance and tools to help standardize local IT development practices, the agency has yet to achieve effective centralized management of its IT. These challenges must be addressed for the CIO to meet the increasing demands to prepare the IT infrastructure and deliver IT service support for the agency's transformation program.

### CIO's Staffing Levels

OIT staffing remains insufficient to effectively deliver IT services and support. In a 2006 self assessment, the OIT identified the lack of permanent IT staff as its most significant weakness. To address this weakness, the OIT increased its staff from 30 at the time of our 2006 audit to 160 in December 2008. Despite these efforts, staffing remains a control weakness, with only about 63% of the 242 authorized full time positions filled, as shown in Figure 8.

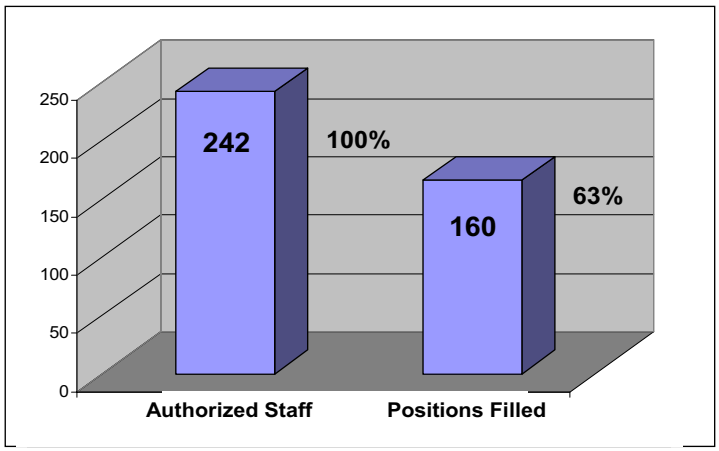


Figure 8: OIT Staffing Levels – December 2008

Staffing in some OIT offices has fallen below a critical level. For example, only about 50% of the IT Service Support Division's

authorized positions are filled. This division oversees all services support, including systems administration, desktops, servers, service desk functions, and other regulatory activities. The impact of this staffing shortfall is apparent as the office performs day-to-day operations. Staff often work extra hours to meet the division's daily operation demands, leading to an increase in staff attrition. As a result, this office faces significant challenges to support more than 500 field IT personnel and the 4,000 new desktop users added since 2007.

According to the CIO, although OIT has hired about four staff per month, it has been difficult to recruit qualified staff in a timely manner and retain them. OIT managers attribute recruiting difficulties in part to the complex and lengthy hiring process. According to one IT Director in the field, obtaining a list of potential candidates takes an inordinate amount of time. Further, once the list is received, it often includes candidates who are not well suited for the position. Additional challenges in recruiting stem from an overly competitive market for skilled IT people.

Although OIT in headquarters administers the staffing decisions for all field offices, there is no formal, overarching staffing plan. The OIT maintains an informal staffing resource document to track and manage vacancies and recruiting efforts. According to an OIT staffing official, this document enables the CIO to track how the office is progressing toward its target staffing goals. However, the document does not contain a clearly defined strategy with specific actions and milestones for recruiting and retaining qualified full-time IT employees.

**Field IT Employees Need Better Support**

IT personnel realigned to the CIO have not received the support needed for effective and efficient operations. The OIG reported in 2006 that IT employees who had moved to the CIO lacked adequate support in some areas. This condition still exists.

During this audit, most field IT staff we spoke to stated that they have not been able to execute day-to-day operations efficiently since the realignment. Regional IT staff stated that basic administrative tasks, such as preparing time and attendance records and obtaining approvals for leave requests, are time consuming or confusing. For example, a number of personnel claimed that they must fax, email, and call contacts at headquarters numerous times to obtain the

required approvals for overtime, leave, or training. In addition, obtaining funding or reimbursements for expenses, such as overtime or training, is often time consuming or difficult. To address these concerns, the OIT recently awarded an administrative support contract to assist with day-to-day operations. Contract personnel will be responsible for, among other things, assisting with reports, purchase requests, and general office tasks.

Similarly, field IT personnel stated that since realignment, roles and responsibilities are not always clearly documented or understood. In February 2008, a team was formed within a field office to pilot the OIT's local application development concept. However, the IT staff involved in the pilot stated that the creation of the team has caused confusion. Specifically, the local IT staff included in the team had not been provided with the necessary guidelines and tools to perform their new job functions at the time of our review. Further, new roles and responsibilities for the pilot had not been effectively communicated. As a result, the team was unclear on the day-to-day activities for which it will be held accountable.

Lastly, field staff and TPO staff experience delays in completing IT projects due to the length of time it takes for OIT to complete the IT service request process. Several TPO managers stated that the ITSR process is lengthy and cumbersome. Because headquarters receives service requests as part of the IT life cycle management process, it is important that it reply promptly. According to the IT Service Support lead at headquarters, there is no set timeframe for completing the service request process. A request may stay open longer if a contract transaction is required to complete a purchase. This situation is compounded due to a significant increase in requests from 2006 and 2008. As a result, it is difficult to manage the number of requests in a timely manner. OIT management stated that they are working to improve the process and establish a way for users to see the status of their service requests. However, the timeframe for finishing this effort was delayed because of budget cuts.

## USCIS Has Not Achieved Centralized IT Management

The *Clinger-Cohen Act of 1996*[14] requires that CIOs review the IT budget within their agency or department to effectively manage IT systems and initiatives as strategic investments. Further, DHS MD

[14] Formerly the *Information Technology Management Reform Act of 1996*.

0007.1 requires component CIOs to effectively manage and administer all component IT resources and assets. Although the USCIS OIT has made progress in establishing its IT governance functions, IT systems development efforts remain, in part, outside the purview of the CIO.

The USCIS CIO does not have effective budgetary authority over IT investments. Although the CIO was granted IT budget authority by DHS-level management policies, consistent execution of that authority within the agency has been difficult to achieve. Field offices and business units with direct fee revenue or appropriated funds have not historically complied with budgetary control processes. Many OIT personnel stated that business representatives are too heavily involved in system and infrastructure change decisions, while the CIO does not have consistent investment decision-making authority.

The CIO is also challenged to enforce compliance with IT system development control mechanisms, such as testing. The CIO finds this to be most challenging for large-scale IT programs, such as the transformation program, which are managed outside the OIT. In August 2008, the CIO identified the autonomy of the IT efforts of the USCIS transformation program and its exemption from normal USCIS controls as an emerging internal control deficiency. For example, the OIT requested that the transformation pilot systems undergo IV&V testing, as prescribed in the IT life cycle management process. The CIO also requested that the TPO consider the IT landscape for long-term, agency-wide scanning functionality. Instead, transformation program managers acquired agency leadership approval to "bypass" the IV&V process. Although this remains a concern, OIT management stated that compliance for IV&V testing among agency programs, such as transformation, is gradually improving.

TPO and OIT management expressed concern that systems within the USCIS transformation could grow out of sync because of the independent and divergent directions being pursued by the TPO. For example, two separate efforts to implement an enterprise requirements tool are underway within the OIT and TPO. The OIT is currently standing up a requirements toolset called Korvair, with a contractor in place ready to test the first project. However, this endeavor may be in conflict with a duplicative requirements toolset being implemented as part of the transformation SA contract. According to the TPO, the contractor is developing a requirements

toolset. As a result, the OIT may have to change its current direction, leading to wasted time and money on planning and training for Korvair. TPO management stated that efforts are underway to address these issues.

The continuation of decentralized IT program efforts has led to a growing number of local systems that are beyond the CIO's current budget or staffing level to manage effectively. Although OIT still does not know the total number of local IT systems, USCIS field offices have reported thousands of applications that were developed "in-house." Historically, these systems were developed to improve workflow of local business processes, and staff rely upon them to perform mission operations. However, because of the ad hoc manner in which these systems were created, field employees often did not properly document development efforts, making it difficult for local staff or headquarters OIT to support the systems.

IT management challenges are further compounded when local systems compromise agency-wide IT infrastructure standards or security protocols. For example, one field office developed an application which was operating on unlicensed software and was compromising USCIS' network infrastructure. Further, this application was developed without OIT support or authorization, resulting in a system operating without agency standard testing, infrastructure, or maintenance. After learning of the application and its associated infrastructure issues and security risks, the CIO assumed control of it to stabilize and sustain its operation for restricted use by the field office. Such efforts by the CIO are part of a long-term strategy to transition field systems to a more stable and secure environment in accordance with federal and agency guidelines and standards.

Guidance for Local IT Development

Rather than banning local IT systems that are sometimes necessary for day-to-day operations, the OIT is providing new policies, guidelines, and tools to standardize local IT development practices and improve management of existing systems. According to Service Engineering Division management, the OIT now has a more focused approach to manage local IT development efforts. For example, IT development efforts performed outside the OIT must adhere to the IT life cycle management process, governing body reviews, and tighter security policies. According to the OIT, such efforts may increase standardization of development efforts while decreasing

security and privacy concerns. This approach will be used as a temporary step to improve centralized management of local systems until new, integrated solutions are deployed with the transformation program.

The OIT is also planning to pilot specific application development programs in field offices to provide a set of policies, guidelines, and tools to standardize IT system development efforts. To that end, the Service Engineering Division began a pilot in 2008 for a Standard Lightweight Operational Programming Environment, or SLOPE. This pilot will provide a common operating environment that can be used to develop small to mid-range databases and applications that align with the USCIS' EA. Additionally, the OIT has continued to refine its Enterprise Service Bus as a method, or tool, for systems to communicate and share data. This will promote integration and reduce the complexity of new interfaces required to meet USCIS modernization goals. The OIT also is implementing new tools such as the Person-Centric Query System and the Standard Management Analysis Reporting Tool. Both systems are meant to enable personnel to digitally compare applicant data between systems and to view the most up-to-date information on any individual within the system.

**IT Infrastructure Improvements Underway**

USCIS has improved the IT infrastructure over the past three years; however, funding cuts have stalled current efforts. At the time of our review, the OIT was implementing IT upgrades for all 236 sites to deliver standardized desktops and increased network bandwidth. During FY 2008, USCIS deployed more than 5,000 standardized workstations to all USCIS domestic offices and most overseas operations, which represent approximately 20% of the enterprise workstation population. In addition, USCIS replaced and standardized the operating systems of all servers that run USCIS' applications in offices across the enterprise.

One primary area of focus in IT upgrades is the creation of a network environment to support new applications. The OIT planned to complete network improvements for 243 of 300 U.S. domestic offices and 31 of 71 overseas operations. However, these plans were delayed because of budget cuts. As a result, upgrades in only 25 locations were completed as of January 2009. Without the necessary funding, the completion date of the remaining network upgrades is unknown.

Finally, the OIT is installing an InfoPass Kiosk, a digital system that allows customers to make appointments in advance. As of January 2009, OIT had installed 65 of the 119 kiosks, which are now the source of about 13% of all appointments. These installations are helping USCIS move away from paper-based operations.

**Upgrades Needed for Future Transformation Phases**

The OIT is conducting a full assessment to determine what changes must be made to the current IT environment to adequately prepare for the transformation. Infrastructure upgrades for the transformation include updating equipment, upgrading circuits, and improving system support. However, according to the OIT, considerable work remains to identify specific infrastructure requirements. OIT is collaborating with a TPO working group to review and assess the infrastructure needs of the proposed transformation solution. This working group also intends to evaluate what is feasible based on the current USCIS infrastructure. This collaboration will help the OIT decide where added infrastructure is needed and how to manage the effort as it moves forward. However, at the time of our review, costs and funding plans for infrastructure upgrades were not finalized.

## Conclusion

Over the past two years, USCIS has elevated the transformation program to an agency-wide priority to more efficiently and effectively meet its mission of administering the nation's immigration laws. The agency has developed a strategy to establish a new operational environment, which will be deployed over a six-year period. This approach is made possible by a new fee structure. USCIS has also strengthened overall IT management and improved IT governance.

However, the agency has made limited progress toward achieving long-term transformation goals to improve operations by deploying integrated, electronic benefits processing capabilities. USCIS has spent more than $117 million since 2005 to develop updated business processes and test the underlying technologies needed for electronic operations. Additionally, the agency is now embarking on a new $14.5 million IT services provider contract to further define the operational environment and enabling capabilities. However, business process engineering efforts have yet to be completed, and pilot programs have been implemented without the completion of operational performance reviews. In addition, stakeholder understanding of and participation in the transformation program has been limited, staffing remains a weakness, and USCIS has not achieved effective centralized management of IT.

Since USCIS was established in 2003, the agency has encountered a significant backlog of cases which impedes its ability to adjudicate the increasing number of applications received each year, thus delaying the delivery of citizenship and immigration benefits to customers. In addition to addressing current operation needs, USCIS must also prepare for potential increases in benefits processing workloads that could result from proposed immigration reform legislation. Consequently, transformation will be critical to support the agency's current workload, address the ongoing backlog, and prepare for potential future increases in demand for immigration benefits processing.

## Recommendations

We are closing all recommendations in our 2006 report and are recommending that the Acting Deputy Director, USCIS:

1. Develop an updated transformation approach, strategy, or plan to communicate end-state business processes and IT solutions to stakeholders.
2. Develop and implement a plan to achieve sufficient and consistent stakeholder participation in process reengineering and requirements definition activities.
3. Complete evaluations to document the results and lessons learned from the pilot and proof-of-concept programs.
4. Develop a USCIS OIT staffing plan that includes specific actions and milestones for recruiting and retaining fulltime employees.
5. Communicate guidelines and procedures for acquiring, developing, and managing IT solutions, as defined by the DHS and USCIS CIOs, to stakeholders.
6. Provide the CIO agency-wide budget and investment review authority for all USCIS IT initiatives and system development efforts.

## Management Comments and OIG Analysis

We obtained written comments on a draft of this report from the Acting Deputy Director, U.S. Citizenship and Immigration Services. We have included a copy of the comments in their entirety at Appendix B.

In the comments, the Acting Deputy Director concurred with our recommendations and agreed that USCIS faces challenges modernizing IT. The Acting Deputy Director, however, also stated concern that the report does not sufficiently acknowledge transformation progress made since our prior review in 2006. We have reviewed the Acting Deputy Director's comments and made changes to the report as appropriate. The following is an evaluation of the comments provided by USCIS.

In response to recommendation 1, the Acting Deputy Director stated that USCIS has fully addressed the recommendation. The Acting

Deputy Director elaborated on a number of initiatives to communicate plans and to achieve internal and external stakeholder participation. Specifically, a communications plan has been established, which includes an agency-wide approach for using multiple communications strategies to prepare stakeholders for reengineered business processes. Further, commitment to agency-wide communications was demonstrated through a broadcast by the director in 2007 to encourage employee involvement in transformation efforts. Finally, efforts to engage field offices and key partners in transformation were evident during the SA's Request for Proposal stage, as meetings were conducted with key internal and external partners. Going forward, the SA plans to employ a change management and communications plan that includes frequent and continuous communication between USCIS and stakeholders. Consequently, the Acting Deputy Director requested that recommendation 1 be closed.

We have reviewed the steps USCIS has taken to implement a communications approach, ensure knowledge sharing, and to engage stakeholders in transformation program efforts. We recognize the progress made in this area since our prior review. However, USCIS has not developed an updated transformation approach. This approach should include business processes and IT solutions once they are defined. At the time of our review, an up-to-date, comprehensive transformation approach did not exist. USCIS executives stated that such an approach will likely be established once current work with the SA progresses.

Once an updated transformation approach is defined, USCIS should communicate this plan to its stakeholders, explaining how the end-state program will improve business processes and IT to support USCIS' final transformation solution.

In response to recommendation 2, the Acting Deputy Director requested that this recommendation be closed, stating that a governance approach has been established. The Acting Deputy Director stated that USCIS has engaged representatives from partner agencies and communities to collaborate and provide feedback and expects these efforts to foster awareness and buy in on transformation program initiatives.

We recognize that USCIS has recently updated the transformation governance structure to improve management of program initiatives. Specifically, this approach is intended to engage subject matter

experts and external stakeholders in transformation business requirements and process reengineering efforts through working integrated project teams. However, this approach was being established at the conclusion of our audit review and was not yet implemented during pilot and proof-of-concept execution. Consequently, maintaining adequate stakeholder involvement and consistent participation was a challenge, creating the need for more formal, integrated team structures. We expect that USCIS' newly formed approach will help to ensure that future process reengineering and requirements definition activities will achieve more effective stakeholder involvement. We look forward to receiving USCIS' plan to achieve sufficient and consistent stakeholder participation in process reengineering and requirements definition activities and the results of the plan's implementation.

In response to recommendation 3, the Acting Deputy Director agreed to complete a "lessons learned" document about the SIMS proof-of-concept and the EDMS pilot. In addition, USCIS agreed that all future proof-of-concepts and pilots would entail lessons learned to support the transformation process. We are encouraged by these plans and look forward to receiving results and lessons learned about the proof-of-concept and pilot.

In response to recommendation 4, the Acting Deputy Director stated that OIT is currently 75% staffed with expectations to reach 90% by the end of FY 2009 and 100% by the end of FY 2010. The agency is using hiring incentives, recruitment tools, and special appointments to fill vacancies and retain staff. Additionally, the agency is participating in job and career fairs and broadening recruitment into non-traditional USCIS job series. We are encouraged by the efforts outlined and look forward to receiving documented staffing plans with specific actions and milestones for recruiting and retaining fulltime employees.

In response to recommendation 5, the Acting Deputy Director outlined steps taken to improve governance and management of agency-wide IT. Additionally, the Acting Deputy Director stated that USCIS will continue to work toward improving IT support for programs and stakeholders. We believe the steps outlined in USCIS' response will help to improve agency awareness and understanding for acquiring, developing, and managing IT solutions. We look forward to receiving progress updates about future efforts to ensure guidelines and procedures for acquiring, developing, and

managing IT solutions are communicated and enforced to stakeholders.

In response to recommendation 6, the Acting Deputy Director stated that the CIO has representation on the USCIS Senior Review Board, the Leadership Alignment Team, the Transformation Leadership Team, and the IT Systems Change Control Board. Additionally, the CIO maintains involvement in the Transformation Program's Working Integrated Project Teams and Stakeholder Information and Participation meetings. We recognize the position of the CIO within the agency's various governing bodies and believe these are steps in the right direction to achieve agency-wide budget and investment review authority. We look forward to receiving evidence of the CIO's continued, active review of all USCIS IT initiatives and system development efforts.

The objective of this review was to determine whether USCIS is implementing its transformation initiatives in efficient and effective manner and had addressed our prior report recommendations.

We researched and reviewed federal laws and executive guidance related to USCIS' immigration benefits processes and systems. We reviewed recent Government Accountability Office and OIG reports to identify prior findings and recommendations. We coordinated with the USCIS Ombudsman to ensure that a review it was conducting did not overlap with our objectives. In line with our compliance follow-up responsibilities, we evaluated documents that USCIS provided from September to December 2008, including updated action plans and milestones, on activities to address our November 2006 report recommendations. Using this information, we designed a data collection approach, consisting of focused interviews and document analysis, to conduct our follow-up review. We developed a series of questions and discussion topics for our interviews.

Subsequently, we conducted interviews at USCIS headquarters and field offices and gathered supporting documentation to meet our audit objectives. At headquarters we interviewed senior USCIS business leaders, including the Deputy Director and Chief Financial Officer, to discuss their roles and responsibilities related to USCIS business and IT transformation. We were particularly interested in transformation planning, business process reengineering, requirements gathering, and pilot program implementation activities. We collected numerous documents from these offices about USCIS accomplishments, current initiatives, and future plans for transformation.

We met with the USCIS CIO to obtain updates to the agency's IT modernization efforts and supporting organizational structure. We interviewed OIT personnel to learn about the efforts to centralize IT personnel and to upgrade and standardize IT hardware and software. OIT managers discussed accomplishments in implementing desktop upgrades, while OIT employees discussed the office's involvement with transformation and newly implemented IT standard tools. To support their comments, these officials provided copies of OIT reorganization plans, as well as documentation regarding IT systems, budgets, and operations.

We visited four USCIS field locations where we toured facilities and interviewed senior managers, IT specialists, and other employees.

We discussed the IT staff centralization progress, local IT development practices, and user involvement and communications with headquarters concerning transformation. We gathered information on current IT development initiatives and learned about system requirements specific to field offices. We sought to evaluate existing practices for managing IT in the field and the extent to which headquarters provides tools for field users. Where possible, we obtained reports and other materials to support the information provided during the interviews.

We conducted our audit from September 2008 to December 2008 at USCIS headquarters in Washington, D.C., and at USCIS field locations in Lincoln, Nebraska; Lee's Summit, Missouri; Kansas City, Missouri; and Dallas, Texas. We performed our work according to generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions, based on our audit objectives.

The principal OIG points of contact for this audit are Frank Deffer, Assistant Inspector General for Information Technology Audits, and Richard Harsche, Director of Information Management. Major OIG contributors to the audit are identified in Appendix D.

U.S. Department of Homeland Security
U.S. Citizenship and Immigration Services
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U.S. Citizenship and Immigration Services

MAY 15 2009

# Memorandum

TO: Richard Skinner
Inspector General
Office of the Inspector General

FROM: Michael Aytes
Acting Deputy Director

SUBJECT: Draft report: U.S. Citizenship and Immigration Services' Progress in Modernizing Information Technology

USCIS appreciates the opportunity to review and comment on the subject report. This report, which follows-up the OIG's November 2006 report on the same subject, addresses the challenges USCIS continues to face as it undertakes this multi-year, multi-faceted project. Modernizing the USCIS system is a massive effort involving virtually every business and records system used by the Agency, including many that interface with other state and federal agencies.

While the report fully describes the challenges USCIS faces, we believe it neither fully acknowledges many of the major steps that have already been taken to implement change, nor, in some cases, adequately recognizes the significant progress that has been made since the last report. USCIS believes that much has been achieved toward the goal of modernizing USCIS information technology, work that has set the stage for the successful transformation of the USCIS immigration system. We have described some of the most significant accomplishments in the following pages and included specific responses to the OIG's recommendations in the final section of our response.

Communication Planning and Change Management

The USCIS Director established the Transformation Program in 2006, and made communication and change management priorities from the outset. As USCIS developed pilot programs to demonstrate business process and technology capabilities, we implemented an agency-wide communication plan to incrementally prepare the user base to understand and embrace the new re-engineered business processes and the accompanying technology. This incremental process required multiple communication strategies including face-to-face sessions, transformation

information packets, e-mail messages to pilot users, Transformation and pilot briefings, good news articles published in USCIS Today, an electronic daily newsletter that reaches every USCIS employee, an informative and up-to-date Intranet webpage that provides for two-way communication through a Transformation feedback e-mail address, and broadcast messages to all employees from the Director.

In a 2007 broadcast, the Director demonstrated the agency's commitment to internal stakeholder involvement by stating, "Throughout the transformation effort, USCIS employees may be asked to participate in related activities such as testing, training, and pilots. I encourage every employee to provide candid feedback throughout the process. Your feedback will be used to shape future system enhancements and business process improvements."

These strategies were also employed during the development of the Solutions Architect Request for Proposal and Statement of Objectives. Beginning in 2007, USCIS held over 40 meetings with internal and external stakeholders to inform broad-based interest groups about Transformation initiatives and to engage key partner agencies. Further, as part of the Transformation Program's commitment to utilizing field expertise throughout the requirements gathering and systems implementation efforts, it conducted requirements development workshops in USCIS field offices in the spring of 2007. Additionally, USCIS announced major contract milestones through major internal and external agency communications channels, including press releases.

The Solutions Architect (SA) contract, which USCIS awarded to IBM Corporation, calls for comprehensive and overarching change management as well as communications plans and strategies to ensure frequent, continuous communication between USCIS, internal and external stakeholders and contractors, as applicable. Further, the SA must identify and help implement best practices to manage expectations and inform internal and external stakeholders about the benefits of adopting the system.

In addition to ensuring stakeholder communications and up-front stakeholder involvement, the Office of Transformation Coordination (OTC) has tapped subject matter experts to develop interim communications strategies and assist USCIS in reviewing IBM's proposed communications plans.

During the first three months of the SA contract, the Transformation program also briefed USCIS and DHS leadership and oversight components, Members of Congress and congressional staffs, community-based organizations and other federal stakeholders and oversight agencies, such as the Office of Management and Budget.

Stakeholder Development of Business Requirements

The USCIS Transformation Program will result in changes in agency business processes, impacting both internal and external stakeholders worldwide. In planning for the Transformation, which culminated in the award of the SA contract, agency management

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recognized the importance of engaging stakeholders in each stage of the Transformation program, including during business requirements development.

In our approach, business requirements and processes will be re-engineered jointly using subject matter experts from USCIS and IBM, as well as external stakeholder involvement. Agency leadership has established a Transformation governance structure which features a Transformation Leadership Team (TLT), a Program Integrated Product Team (PIPT), and a Working Integrated Product Team (WIPT) structure that will effectively involve over one-hundred subject matter experts from all areas of the agency, with an emphasis on field office stakeholders. In addition, the Office of Information Technology (OIT) and USCIS Directorates are, and will continue to be, represented throughout the Transformation governance structure.

This approach ensures buy-in from the outset, as stakeholders who are recognized and respected subject matter experts develop the business requirements. Additionally, these individuals disseminate information and promote understanding at a grassroots level in their home offices. Thus, they share information on the planned changes and likely impacts on an on-going basis directly with their organizational staff, thereby serving as Transformation Change Agents. Finally, agency leaders in Headquarters are well informed on, and participate in, the governance process, ensuring effective coordination with parallel initiatives in areas such as Human Capital and Training and Facilities Administration.

Early Involvement by External Immigration Partners

USCIS increasingly engages representatives from partner agencies (including other immigration-focused DHS agencies, the Department of State (DOS), and the Department of Justice (DOJ). Through program briefings with these agencies, USCIS is developing a stronger enterprise collaboration environment, resulting in:

- Increased exchanges of information;
- Discussions of potential improvements to cross-agency information management;
- Increased operational efficiency; and
- Improved service to current and future visitors, residents and citizens.

USCIS has invited these agencies to send representatives to participate on the WIPTs. Several agencies have made formal presentations to the WIPTs to discuss potential or planned coordination of technical and operational changes based on the transformation strategy at USCIS. These relationships are being increasingly formalized as the organizations begin to share requirements and process reengineering information.

Customers and Community-Based Organizations Actively Involved

To the extent possible, USCIS has provided information and garnered feedback from external stakeholders. In addition to the comprehensive communications strategies that are being developed by IBM, USCIS is exploring the possibility of establishing a Transformation Customer Committee (TCC) in accordance with the Federal Advisory Committee Act. If established, the TCC will advise USCIS on how Transformation program initiatives affect

immigration customers. It is expected that during its initial two-year term, the TCC could consider such issues as automated account development and account-based management, case management, inter-agency coordination, and other elements important to the successful achievement of the USCIS Transformation.

In addition, USCIS has established a component within OTC to focus on internal and external communications, including marketing and branding initiatives, and better position the agency to prepare USCIS employees and customers for upcoming SA releases.

Development of an Advanced Enterprise Architecture (EA)

In October 2007, OIT established an Enterprise Architecture (EA) program, named its first Chief Enterprise Architect, and staffed the office with six federal employees. In doing so, the USCIS established a nascent governance program for enterprise Information Technology (IT) investments.

In addition to creating an EA office, OIT authored two key Management Directive/policy guidance documents, one for Enterprise Architecture and another for Capital Planning and Investment Control. These two documents form the foundation for a successful IT investments governance program.

Further, in September 2008 USCIS enlisted the DHS Office of the Chief Information Officer (OCIO) to conduct an independent assessment of USCIS EA maturity, resulting in an Enterprise Architecture Assessment Framework (EAAF) maturity Level rating of 2.88 out of 5.0 (0 being "Initial" and 5.0 being "Optimized"). USCIS also established a contemporary EA repository environment in order to mature and manage the USCIS EA, as well as to manage the rapidly evolving EA surrounding the transformation initiative.

Initiation of Interagency IT Collaboration to Advance Data Sharing

USCIS receives and processes 7.5 million applications and petitions per year for over 50 types of immigration benefits. The processing of many of these applications requires business interactions that span the DHS immigration agencies (i.e., USCIS, Immigration and Customs Enforcement (ICE), and Customs and Border Protection (CBP)) as well as DOS's Bureau of Consular Affairs (DOS/CA). Currently, USCIS has a number of disparate, stove-piped systems that record an immigrant's interactions with the U.S. immigration process. To view all of an immigrant's interactions, an adjudicator or a border patrol agent must log into separate systems and perform a set of complex queries against each system. The user then has to correlate the resulting data manually to see a "person-centric" response.

To support and facilitate interactions with partner agencies, USCIS, in collaboration with DOS, US-VISIT, CBP, and ICE, has developed the Person Centric Query (PCQ) Service to provide a comprehensive picture of an immigrant's status from visa application to naturalization. The PCQ Service enables automated searching of an immigrant's historical transactions. The PCQ Service represents a new, automated approach for submitting a single query to obtain all of an

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immigrant's transactions across a number of DHS and DOS systems. The output gives a consolidated and correlated view of the immigrant's past interactions with the government as he or she passed through the U.S. immigration system. This view is, in turn, also being made available to the USCIS partners (i.e., ICE, CBP, and DOS/CA) so that they may also benefit from this information sharing initiative.

The USCIS PCQ Service increases the efficiency and effectiveness of status verifiers and benefit adjudicators by providing a single-user interface for status verification and benefit adjudication, and removes the complexity of accessing 11 individual systems separately. The USCIS PCQ Service is USCIS's fulfillment of an initiative for data sharing with the DHS immigration agencies and DOS/CA.

Initiation of Intra-Agency IT Collaboration to Improve E-Verify

E-Verify is a free, Internet-based system that gives employers the ability to quickly confirm the legal working status of new hires. The program is administered by USCIS in partnership with the Social Security Administration (SSA). USCIS has undertaken a number of initiatives to enhance the utility of E-Verify. Specifically, a joint program executive office has been established between the E-Verify business unit, the National Security and Records Verification Directorate (NSRV), and OIT. This has helped to facilitate the deployment of a rigorous program management discipline across the E-Verify program. In addition, USCIS has collaborated with SSA and DOS to enhance its data matching capabilities.

To reduce the number of cases that resulted in Tentative Non-Confirmations (TNCs) because of citizenship mismatches, USCIS coordinated with SSA to automatically check USCIS naturalization data before issuing a citizenship status TNC. The number of citizenship mismatches has been reduced by approximately 39 percent. In addition, employees who receive a TNC with SSA due to a citizenship mismatch are now able to contact USCIS via a toll-free number to contest the finding, address the discrepancy, and verify their work authorization. This process has reduced walk-ins to SSA field offices for E-Verify citizenship mismatches by 56 percent. Of those individuals who call USCIS to address a mismatch based on citizenship status, over 90 percent are successfully resolved by USCIS as work authorized. USCIS and SSA are also exploring further enhancements, including a direct data share initiative that would update SSA's database with naturalized citizen information. Another initiative between SSA and USCIS involves the development of a dedicated pipeline to SSA for E-Verify queries. Work on this initiative is expected to be completed at the end of FY09.

In December 2008, DHS signed a Memorandum of Agreement with DOS to share passport data and photographs from the DOS records. In February 2009, USCIS began incorporating passport data into E-Verify to check citizenship status information in the event of a mismatch with SSA. This incorporation of passport data is reducing the number of TNCs issued to naturalized and derivative citizens[1] who present U.S. passports during the Form I-9 process (i.e., when the new hire fills out a form attesting to his or her work authorization eligibility and presents the requisite

[1] Citizens who did not personally complete the naturalization process, but derived citizenship from their parents.

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documents). To date, this enhancement has resulted in over 295 queries that would have received TNCs (under the previous procedures) being automatically verified as employment authorized.

Initiation of Inter-Industry IT Collaboration to Establish a Service-Oriented Lockbox

In partnership with the Department of the Treasury, USCIS has enhanced and expanded management of its Lockbox operations. This enhancement/expansion project has provided USCIS with IT-enabled streamlining and consolidation of business processes surrounding naturalization and I-90 (Application to Replace Alien Registration Card) intake and related fee collection. This project routes electronic data from the Lockbox provider to USCIS's systems through USCIS's Service Oriented Architecture (SOA) discussed below. As USCIS expands the system to encompass more benefits applications, it will take on a greater percentage of the agency's application intake.

By processing benefit applications through the Lockbox provider, USCIS has enhanced its ability to outsource the paper application intake services. This effort will enable USCIS to progress toward paperless processing because the Lockbox provider routinely produces images during the intake process and effectively routes electronic data to USCIS systems.

Establishment of an SOA Infrastructure

SOA is an architectural and technology enabler that provides a standards-based operational approach for software applications development and delivery. USCIS has initiated a SOA infrastructure with the establishment of an Enterprise Service Bus (ESB). The USCIS ESB provides a run-time environment to deploy and manage software developed as reusable services, thus saving costs and allowing quicker deployment of new and altered capabilities. The successful implementation of the USCIS ESB is reflected in the receipt of the Project Management Excellence Award for Service Oriented Architecture from the Government Information Technology Executive Council (GITEC).

Additionally, the USCIS OIT Staff recently received the DHS 508 Coordinator of the Year Award, the DHS ISSO of the Year Award, and The Secretary's Award for Team DHS Excellence Presented to the USCIS Chief Architect from the DHS Enterprise Architecture Program Management Chief. These awards are examples of the recognition that USCIS is receiving for its significant progress in modernizing USCIS information technology systems.

**The following section contains USCIS's responses to the six DHS-OIG recommendations.**

The DHS-OIG is closing all recommendations in the 2006 report and recommends that the Acting Deputy Director of USCIS:

**Recommendation 1:** Develop an updated transformation approach to communicate end-state business processes and IT solutions to stakeholders.

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**Recommendation 2:** Develop and implement a plan to achieve sufficient and consistent stakeholder participation in process reengineering and requirements definition activities.

**USCIS Response:**
Concur. USCIS is fully compliant with and has fully addressed Recommendations 1 and 2, and respectfully requests that they be closed. A detailed description of USCIS progress in developing and communicating its transformation approach and engaging stakeholder involvement is provided on the preceding pages.

**Recommendation 3:** Complete evaluations to document the results and lessons learned from the pilot and proof-of-concept programs.

**USCIS Response:**
Concur. USCIS will complete lessons learned on the Secure Information Management System (SIMS) proof-of-concept and the Enterprise Document Management System (EDMS) pilot. The lessons learned will encompass both the proof-of-concept and the pilot. Included in the lessons learned will be a way ahead with a focus on improving the transformation solution. A draft report of the evaluations will be circulated for review and comment to the Working Integrated Product Teams (WIPTs), Program Integrated Product Team (PIPT), and to the Transformation Leadership Team (TLT). The final report will be completed by 4th Quarter FY2009.

In addition, USCIS will extend these evaluations to all future pilot and proof-of-concept programs, with a focus on lessons learned and improving transformation processes.

**Recommendation 4:** Develop a USCIS OIT staffing plan that includes specific actions and milestones for recruiting and retaining full-time employees.

**USCIS Response:**
Concur. USCIS has completed a major structural modernization that includes changes to the OIT organizational composition and a significant growth in overall staffing. Since FY 2007, OIT's permanent staff ceiling has risen from 150 to the current 242 Full Time Equivalent (FTE) positions. USCIS is using every available innovation to attract and retain the best and brightest. USCIS is using hiring incentives and recruitment tools to fill critical vacancies and retain valuable employees. The Agency is actively participating in Job and Career Fairs nationwide and using special appointment authorities wherever doing so will bring needed skills to help address the technology challenges of the day. Non-USCIS traditional job series of 1550, 1515, and 854 are being used to broaden the talent pool OIT is bringing on board to address USCIS needs.

OIT is currently at 75% strength and has been working aggressively over the past two years to achieve full staffing. We are confident that OIT will achieve 90% staffing by the fiscal year end and 100% in FY 2010.

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**Recommendation 5:** Communicate and enforce guidelines and procedures for acquiring, developing, and managing IT solutions, as defined by the DHS and USCIS CIOs, to stakeholders.

**USCIS Response:**
Concur. Since the issuance of the November 2006 OIG report, USCIS has taken steps to ensure the promulgation of guidelines and procedures for acquiring, developing, and managing IT solutions throughout the agency. For example:

- In June 2007, USCIS published the IT Lifecycle Management detailing the process used to create and maintain IT solutions for USCIS under the governance of the USCIS Enterprise Architecture.
- In February 2008, USCIS began a phased implementation of the new plain language policy and procedures system, the Citizenship and Immigration Governance Authoring and Retrieval (CIGAR) system. Currently there are more than 100 documents published in CIGAR with another 250 documents in process. Each policy or procedure is indexed to control objectives focused on supporting the strategic goals and objectives of USCIS.
- In September 2008, USCIS issued a new Enterprise Architecture Management Directive (MD 103-001) to maximize the business value of USCIS investments and harmonize disparate planning and development efforts by aligning them with USCIS mission outcomes.
- USCIS is currently building an innovative web application designed to make it easier and faster for USCIS employees to acquire IT solutions to support their needs. Called the "IT Stuff Store," this new system will make it as easy to obtain a needed piece of equipment for USCIS-use as to order one from a commercial vendor on the World Wide Web.

USCIS will continue to work towards improving the technology support for USCIS programs and other stakeholders.

**Recommendation 6:** Ensure that the CIO has agency-wide budget and investment review authority for all USCIS IT initiatives and system development efforts.

**USCIS Response:**
Concur. USCIS has taken steps to include the CIO in its overarching IT decision-making processes. The CIO is represented on the USCIS Senior Review Board, the Leadership Alignment Team, the Transformation Leadership Team, the IT Systems Change Control Board, and has extensive involvement in the Transformation Program's Working Integrated Project Teams and Stakeholder Information and Participation meetings.

cc: Frank Deffer, Assistant Inspector General for Information Technology Audits
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