

United States Department of State
United States Agency for International Development

APPLIED JOINT ENTERPRISE ARCHITECTURE

*EMPOWERING DIPLOMACY &
INTERNATIONAL DEVELOPMENT*



Applied Joint Enterprise Architecture

February 2005



USAID
FROM THE AMERICAN PEOPLE

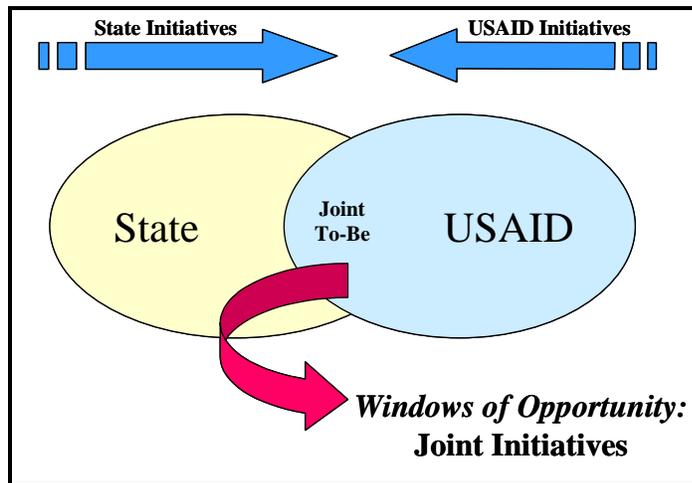
Executive Summary	5
Chapter 1: Enterprise Architecture’s Rise To Prominence	7
1.1: Imperatives for EA	8
1.2: Following Federal Guidance	9
1.3: Challenges and Opportunities.....	10
1.4: Structure and Organization of this Document	11
Chapter 2: Emerging Joint Business Requirements	13
2.1: Version 2 Business Requirements	14
2.2: New Business Requirements	14
2.3: Implications of Joint Business Requirements	17
2.4: Conclusion	18
Chapter 3: Knowledge Management at State and USAID	19
3.1: A Strategic Imperative.....	20
3.2: Analytical Model.....	21
3.3: Strategy Development	22
3.4: Core Applications	23
3.5: Training, Education, and Instruction.....	24
3.6: KM Services	26
3.7: Project Management.....	28
3.8: Recommendations.....	30
Chapter 4: Unify Infrastructure and Simplify Processes	35
4.1: Unify and Simplify: A Strategic Imperative.....	35
4.2: Alignment Methodology.....	36
4.3: Programs and Business Functions in JMC and JPC	39

4.4: Assessment of Joint Telecommunications Segment Architecture	43
4.5: Assessment of Joint Information Security Segment Architecture.....	51
4.6: Conclusion	59
Chapter 5: IT Investments & Services in the E-Government Paradigm.....	65
5.1: Analyzing the Current Environment.....	66
5.2: Practicing Zero Redundancy—Consolidation Through Duplication Identification	80
5.3: Promoting Enterprise Services	83
5.4: Opportunities For Change.....	90
Chapter 6: Enterprise Architecture Governance.....	97
6.1: As-Is Governance	98
6.2: Proposed To-Be Joint EA Governance Model	99
Chapter 7: Transition Strategy and Next Steps.....	102
7.1: Guiding Transition Planning—Joint Program Architecture Development.....	104
7.2: Next Steps.....	108
Attachment A: Concept of Operations.....	110
Attachment B: Version 2 Requirements: Definitions	120
Attachment C: Joint EA Repository	123

Executive Summary

This *Applied Joint Enterprise Architecture* offers new models for interagency collaboration. These embody a synthesis of third-generation Joint Enterprise Architecture research conducted by the Department of State and the U.S. Agency for International Development (USAID). Our focus on collaboration follows from the FY 2004-2009 Department of State and USAID Joint Strategic Plan. Guidance from the Office of Management and Budget's (OMB) Federal Enterprise Architecture (FEA) program, under the auspices of the President's Management Agenda's (PMA) E-Government initiatives, has also played a key role in steering the effort.

Within these pages are presented analyses of currently shared State-USAID initiatives; rationales describing a range of possible collaborative relationships in the future; and recommended strategies for achieving the transition. Collectively, *Applied Joint Enterprise Architecture* aims to widen windows of opportunities while optimizing the environment for joint initiatives between the two agencies, as depicted below.



Based on Joint Strategic Plan direction, this document introduces three themes as foundational components for collaboration:

- Knowledge Management
- IT Investments & Services
- Unify Infrastructure & Simplify Processes

These themes reflect core guidance presented in the State's *2006-2010 IT Strategic Plan Goals Paper*, State's *E-Government Strategy*, and combined initiatives recommended by the Joint Management Council.

Applied Joint Enterprise Architecture begins by introducing **Emerging Joint Business Requirements** identified and categorized in the course of our EA effort. These requirements, ranging from the need to better manage knowledge resources to the need to better align programs, policies, and laws, all testify to the fact that attaining real collaboration in the interests of the enterprise endures as an ongoing challenge.

After the discussion of emerging requirements, topics are introduced that address possible solutions to the obstacles they face. The discussion starts with an exploration of the state of **Knowledge Management at State and USAID**. Knowledge Management promises high returns for information sharing in the foreign affairs arena, but has been so far hobbled by limited resources, coordination, and institutional bureaucracy.

Then, a **Unify Infrastructure and Simplify Processes** analysis examines the alignment levels of various functions and bureaus across the two organizations' boundaries. This analysis provides perspective into the As-Is state of collaboration at State and USAID and areas ripe for exploration in the near future.

Finally, the paper includes an analysis of **IT Investments and Services in the E-Government Paradigm** at State and USAID. In this area, significant progress toward E-Government initiatives and goals are seen to be attainable through more shared investments in technology to achieve business and strategic goals.

Creating a simpler, more efficient business environment requires equally innovative transition and supervisory strategies. Work by the Joint Policy Council (JPC) and Joint Management Council (JMC) forms the basis for the reexamination of a current alignment approach between foreign affairs policy and major programs. The proposed Joint EA governance model promises that priorities will be based on broad consensus across the two agencies and that EA compliance is participatory, transparent, and accountable. A Transition Strategy outlines the ways an enterprise-wide portfolio management structure can help ensure that future joint business requirements can be met successfully.

Finally, we examine the deployment of a Joint Repository. This logically arranged data store of the related artifacts that together make up the State Department/USAID enterprise architecture would provide a new view into relationships among the information elements and work products that comprise it. Its report functions will provide a foundation for rational understanding of these interrelationships for many at both agencies.

Chapter 1:

Enterprise Architecture's Rise To Prominence

In today's federal environment, the need to manage information technology (IT) to fully support a broad spectrum of business needs is critical. IT's role within the government must shift from that of a support service to that of an active catalyst for change. Federal agencies must attempt this radical shift while practicing performance-based and results-oriented decision-making standards required by such 1990's laws as the Government Performance and Results Act (GPRA) and the Clinger-Cohen Act (CCA). This landmark legislation mandates that federal agencies achieve increased public accountability, mission awareness, organizational adaptability, and technology/business alignment, all within a more business-aware environment.

More recent legislation passed in the wake of 2001's al-Qaeda attacks firmly supports earlier laws directing federal agencies to isolate common processes to better understand the IT systems that could make them more efficient and collaborative with their partners. To achieve this goal, agencies are relying increasingly on Enterprise Architecture (EA) to provide the framework for the systems development that accommodates these changing business needs.

EA makes meeting these mandates an achievable goal. When used as a decision-support tool, EA can help government managers at both the Department of State and USAID identify IT solutions that sustain their shared business needs. EA can also manage the implications these business needs place on the technology utilized by both. Finally, EA provides a clear view of areas of procedural and technical commonalities across organizations' business functions that enable new perspectives for more effective IT strategic planning. These in turn offer business owners and technologists previously unforeseen avenues for improvement.

The Applied Joint Enterprise Architecture has turned its focus from general architecture development to those areas of opportunity that will mutually benefit both State and USAID through the creation of more effective and efficient processes.

The opportunities for joining forces for the development of a common support infrastructure are limited by the primacy of both agencies respective functional missions, and often, by the differences in processes and activities used to support the resultant functional programs. What specifically is aimed at here is the identification of a set of functional areas that have already, for the most part, been identified as being of concern. Such concerns arising from experience that has demonstrated an inability to quickly and efficiently draw on each others resources in

time of need either to mount a concerted effort or to mobilize a rapid response. The solutions proposed will take the form of unification, and hopefully, resultant simplification of the targeted support activities.

The targeted activities, which will undoubtedly require further management examination prior to their approved unification, should nonetheless be understood to be an initial effort; this initial effort being a precursor to a broader examination of targets of opportunity with State and USAID and eventually, as called for by OMB, across the federal government.

1.1: Imperatives for EA

EA has assumed vastly greater importance over the past two years in every department and agency in the U.S. government. Creating a single federal EA that defines common business practices and technologies to make government work more securely and efficiently may be the greatest IT management challenge now facing the public sector in the wake of "9/11".

On Sept. 11th, 2001, rescue workers from different jurisdictions responding to the al-Qaeda terrorist attacks at New York City's World Trade Center and at the Pentagon, outside of Washington, D.C., found that their radios were not interoperable, wireless phone service was overloaded and disrupted, and the emergency radio network established during the Cold War to alert people to danger was never activated. In the days following, law enforcement agencies discovered that various government databases held critical information on some of the men who had hijacked the four passenger jets used in the attacks, but the information wasn't shared among these agencies, and no one had been told that one of the hijackers had been on the FBI's terrorist watch list.

In the years since the terrorist attacks, the Bush Administration, under its "National Strategy for Homeland Security" and the President's Management Agenda's (PMA) E-Government initiative, drafted plans calling for more effective information sharing among federal, state, and local agencies. In their wake, the federal sector has been struggling to develop EAs that focus on and foster collaboration and better information sharing.

While each agency has been thus far responsible for mapping its own EA, the Office of Management and Budget (OMB), under the auspices of the PMA, has assumed ever-increasing authority in setting this effort's strategic direction through its Federal Enterprise Architecture (FEA) program. The effort's purpose is to identify opportunities to unify work and simplify processes across the agencies and within the lines of business of the federal government. OMB's FEA will hopefully foster cross-agency collaboration and reduce redundant spending, ultimately providing a more integrated and more IT-effective federal government.

1.2: Following Federal Guidance

The FEA is entirely business-driven. Its foundation is OMB's Business Reference Model, which describes the government's Lines of Business (LoB) and its services to the citizen, independent of the agencies and offices involved. This business-based foundation provides a common framework for improvement in a variety of key areas, most notably:

- Budget Allocation
- Horizontal and Vertical Information Sharing
- Performance Measurement
- Budget/Performance Integration
- Cross Agency Collaboration
- E-Government
- Component Based Architectures

This focus on business functionality propels an unprecedented drive at State and USAID. Together, the two agencies are collaborating to develop a new, third-generation Joint EA (JEAv3) that sets new benchmarks for aligning our technology resources with common business needs while at the same time enhancing interagency planning and execution processes that effectively align with OMB's strategic direction.

The Joint Enterprise Architecture (JEA) is ultimately derived from State's and USAID's business plans or strategies. That means that a clear cause-and-effect relationship can be shown between the organizations' business-driven decisions and how they will use technology.

Business strategy influences the JEA in a number of ways. First, business strategies provide both enterprise architects and program and project managers with a set of clearly defined functions that they need to support. Second, business strategies define how State and USAID are going to achieve their stated goals, giving IT decision makers a *blueprint* for the types of IT solutions that support the defined business needs.

The JEA utilizes both agencies' business strategies to determine which business functions are most important for achieving and maintaining mission effectiveness. These may also influence the types of technology that will be used, or which business processes will be automated or improved through use of more modern technology.

The impact that these factors have on the use of technology in the business can be articulated in the technology implications, as shown here:

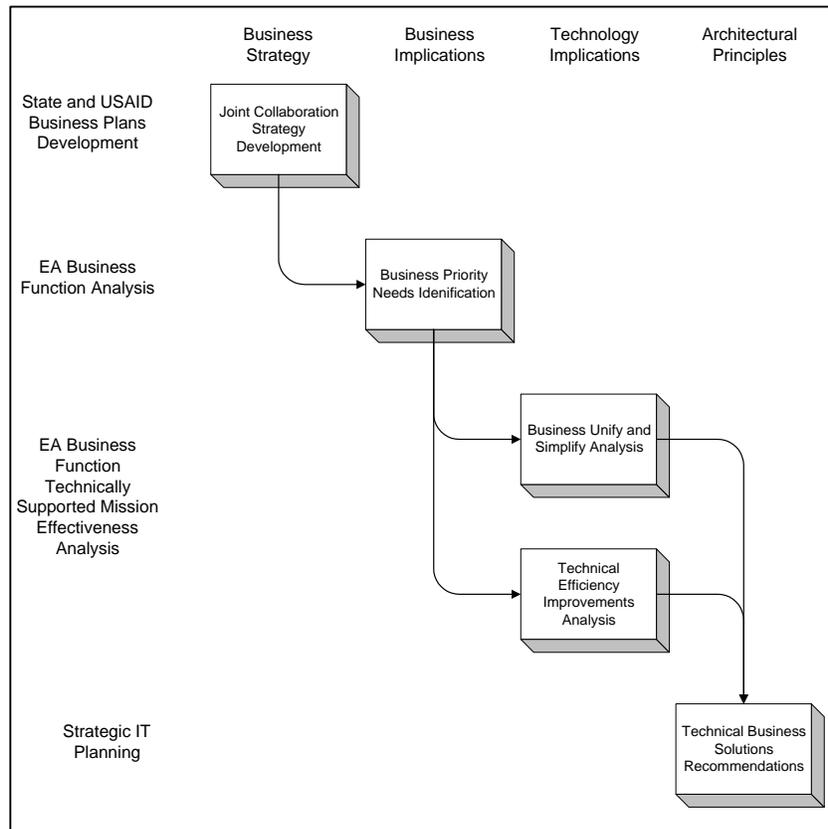


Figure 1.1: Applied Business Strategy in EA

1.3: Challenges and Opportunities

State and USAID are facing operational and business challenges in executing and supporting critical missions in Diplomacy and Development overseas. These challenges, which generally have increased due to heightened national security concerns in past years, revolve around successfully carrying out critical diplomatic and development missions in potentially unstable security environments and with limited resources. Business and technical communities that support programs and projects must now adapt and respond to the fast-changing environment with agility, flexibility, and efficiency.

Specific challenges include:

- Achieving safety and efficiency in overseas operation
- Rightsizing US presence in overseas posts/missions
- Rationalizing administrative services and systems
- Improving information security, access, and availability
- Improving global personnel, financial, and asset management

- Improving program management and planning tools and processes

These challenges bring with them the need for change. They create opportunities that can lead both agencies to improved institutional strength and resource savings by:

- Sharing value-added services
- Establishing joint operations
- Standardizing security posture
- Integrating transaction systems
- Collaborating in infrastructure planning and deployment

In order to transform these options into realities, State and USAID are collaborating on a number of initiatives. The primary driver of this effort is the *FY 2004-2009 Department of State and USAID Strategic Plan (JSP)*, which defines synergies between the two agencies and encourages a direction for joint initiatives.

Based on the JSP direction, the Joint EA formulated three collaboration themes:

- Knowledge Management
- Unify Infrastructure & Simplify Processes
- IT Investments & Services

These three themes reflect goals articulated in *State's 2006-2010 IT Strategic Plan Goals Paper*, the Department's *E-Government Strategy*, and shared initiatives in the Joint Management Council (JMC) Working Groups, as described in the following table:

JEA Themes	IT Strategic Plan Goals	JMC Working Group
Knowledge Management	<ul style="list-style-type: none"> ▪ The Right Information ▪ External Partnership 	<ul style="list-style-type: none"> ▪ E-Government
IT Investments & Services	<ul style="list-style-type: none"> ▪ External Partnership ▪ IT Organization and Workforce 	<ul style="list-style-type: none"> ▪ E-Government ▪ Rightsizing
Unify Infrastructure & Simplify Processes	<ul style="list-style-type: none"> ▪ Anytime/Anywhere Computing ▪ Risk Management 	<ul style="list-style-type: none"> ▪ Management Processes ▪ Information and Communication Technology

1.4: Structure and Organization of this Document

The Joint EA version 3 (JEA3) updates and refreshes many of the business and technical artifacts found in the Joint EA version 2 (JEA2).

This update includes:

- Development of As-Is and To-Be Joint Information Security and Telecommunications Segment Architectures in 14 service/process areas
- Development of joint business requirements based on Joint Policy Council (JPC)/ Joint Management Council (JMC) working papers
- Assessment of alignment for programs and business functions
- As-Is and To-Be architecture for knowledge management
- Deployment of a Joint EA Repository
- Incorporation of an FEA-driven To-Be enterprise service model
- Formation of Joint EA governance
- Completion of FEA alignment in major and non-major applications
- Inclusion of three Joint Exhibit 300s
- Transition Strategy

This document, *Applied JEA*, is a synopsis of the JEA v3 and summarizes analyses and recommendations around the three themes that were introduced in the previous section.

We have organized this document to reflect, in accordance with architectural principles, the business-driven, top-down analysis that was performed to develop the JEA v3.

- Chapter 2 discusses **Emerging Joint Business Requirements**. For JEA v3 the business requirements have been expanded from JEA v2, emphasizing the introduction of both new initiatives and new business needs.
- Chapter 3, **Knowledge Management at State and USAID**, examines the architectural direction established for satisfying the business requirements through the support of a more effective dissemination and protection of knowledge—the agency’s most basic resource.
- Chapter 4 explores how the business requirements that support the functions of State and USAID can be integrated through a **Unify Infrastructure and Simplify Processes** analysis to provide a more efficient, cost-effective support environment.
- Chapter 5, **IT Investments and Services in the E-Government Paradigm**, defines an enterprise service model within which the Unify and Simplify process may be extended government-wide and investments cost-justified based on their relevance to the business requirements and support functions defined in earlier chapters.
- Chapter 6, **Enterprise Architecture Governance**, presents a Joint EA Governance model, the To-Be management structure to guide development and implementation of a Joint EA.
- Chapter 7, **Transition Strategy and Next Steps**, focuses on the question of what actions are called for to initiate a transition towards the proposed recommendations.

Understanding how regional and functional bureaus interact with overseas posts and missions is important in institutionalizing and operationalizing the recommendations. Attachment A, the **Concept of Operations**, is provided to help coalesce the wide-ranging institutional picture of State and USAID into a working model of information flows, roles and responsibilities, and management structures from headquarters to the missions and posts. Attachment B presents a detailed description of **Version 2 Requirements** referenced in chapter 2. A key element of the Joint EA is the deployment of a Repository and, in Attachment C, the current capability and planned features of the **Joint EA Repository** are presented.

Chapter 2:

Emerging Joint Business Requirements

Assessing Business Needs for Today and Tomorrow

The foundation for ongoing joint EA development is based on the ability to stay current with, and respond to, changing business needs. To maintain this currency, an annual information gathering, analysis, and definition of business requirements is conducted. As part of the survey the business community is asked to communicate their wants and needs, articulate the types of problems they face, and identify the obstacles and impediments they face each day in their roles and carrying out their responsibilities within State and USAID.

The objective of the exercise is a clear, well-articulated set of business requirements. These requirements are a precondition for aligning IT investments with defined business needs for State and USAID—an OMB requirement. Findings are documented and passed to management for review to ensure that the communicated needs of the entire business community are reflected in IT investment priorities and decisions.

For the JEA_{v2} (released in 2003), we spoke directly with the business community within State, inviting them to describe their wants and areas of greatest concern. This year, 2004, we built on the information gathered and analyzed last year and initiated the examination and evaluation of internal working documentation from State and USAID business communities. We started by gathering this documentation and targeting areas of joint concern. The agencies communicated their goals and objectives as well as the obstacles they faced as part of their efforts to work together toward a common purpose and shared objectives. This effort supports our continuing goal to identify unspoken business requirements.

This chapter describes the Joint Business Requirements identified as the result of the collaboration between State and USAID. This requirement set is an important way to evaluate the two agencies' concerns today, where they'd like to be in the months and years ahead, and what types of challenges they foresee to attaining their longer-term goals and objectives.

In the course of our requirements collection and analysis, we confirmed that the set of requirements presented in the JEA_{v2} are still valid for State and are also valid and relevant for USAID. We also identified six new business requirements as part of this year's JEA_{v3} effort (2004). These new and emerging requirements were new in that they could not be matched to

the JEA v2 requirement categories and that they represented a set of distinct wants, needs, and challenges that have emerged in the past year.

Here, we briefly list the JEA v2 requirements, then we proceed to explore the new and emerging requirements in more depth. To read more about the JEA v2 requirements, please refer to Attachment B of this document.

Before we discuss the requirements, it is useful to talk briefly about the overarching theme that ties all the requirement threads together. The picture that has emerged from our requirements collection and analysis efforts is clear and compelling—the two agencies, at all levels and across a wide range of activities, have accepted the mandate to collaborate and have taken steps to realize the mandate.

Collaboration, though, is often faced with significant technical, operational, and procedural challenges. The basic message is that the challenges themselves must be identified, solutions must be formulated, and strategies must be developed, all with the specific intent of overcoming anything that inhibits collaboration.

2.1: Version 2 Business Requirements

For JEA v2, State collected, classified, and analyzed 465 business requirements from senior management's responses to the Business Analysis Tool surveys. The EA team then grouped the requirements into 11 categories and returned them to senior management in the E-Government Program Board for approval. These approved requirement categories became the foundation for the JEA v2 Transition Plan and our JEA v3 requirements collection and analysis effort.

Version 2 Requirements Categories include:

- Communicate Business Information
- Conduct Meetings
- Coordinate Program Activities
- Continuity of Operations
- Disseminate Information
- Conduct Training
- Program Resource Management
- Funds Resource Management
- Human Resource Management
- Physical Asset Resource Management
- Information Resource Management

2.2: New Business Requirements

For JEA v3, we extended our scope of inquiry to include the findings and recommendations of the Joint Policy Council (JPC) and Joint Management Council (JMC). These findings and

recommendations were mapped, where applicable, to the existing JEA v2 To-Be requirement categories; however, many of the requirements we identified did not fit comfortably in our existing JEA v2 requirements categories. In effect, we had determined that we had identified new and emerging requirements that demanded the creation of new requirements categories. These categories were sufficiently different from those identified in our JEA v2 efforts that we concluded that we had identified a set of requirements unique to the past year.

The following six joint business requirement categories represent a summation of the findings and recommendations of the JPC and JMC working groups and the Joint Enterprise Architecture Team (JEAT) and are intended to capture and explain, at a high level, the new and emerging requirements we identified in our JEA v3 efforts.

New Requirement Category: Improve Exchange and Use of Knowledge Resources

identifies the need to ensure the involved parties, associated with either a foreign policy or support program, are:

- Adequately making their knowledge, skills, and abilities known to others within their community of practice who may need to know of, and stand to gain from, their expertise, accomplishments, and achievements
- Identifying and exchanging Best Practices and Lessons Learned with others within their community of practice so that they can learn from each other
- Sharing their existing knowledge resources with others within the community of practice so that these resources can be examined to eliminate redundancies, resolve differences and derive a common or shared definition or description, and identify gaps in knowledge so that those resources can be acquired or developed
- Developing a set of standardized definitions of terms and language within their community of practice and across State and USAID.

These efforts are necessary to:

- Facilitate more effective and efficient communications
- Increase shared understanding of each other's efforts
- Make more informed and consistent decisions
- Enable sharing of expert personnel
- Share valuable knowledge resources.

The ability to perform these activities exceptionally well is extremely important to advancing U.S. foreign policy priorities and providing developmental and humanitarian assistance around the world, and achieving our collective objectives and goals. Results from this requirement will also enhance the execution and integration of the numerous tasks associated with a program or project.

New Requirement Category: Improve Program Management and Collaboration

identifies the need to ensure program and project managers have a commonly shared set of policies, methods, standards, techniques, and tools available to initiate, plan and design,

implement, execute, monitor and control, and assess the performance of a foreign policy or support program within State and USAID.

These efforts are necessary to:

- Facilitate decision-making
- Permit the ability to assess the effectiveness and efficiency of programs within and across functional and regional boundaries
- Increase effectiveness of program and project planning, management, performance, and reporting
- Improve communication and understanding of program activities
- Increase the ability of assigned personnel to collaborate within and across programs to improve performance of policy formulation, implementation, and execution.

New Requirement Category: Integrate and Align Policies with Laws, Foreign Policies, and Program Objectives and Priorities identifies the need to ensure employees, associated with either a foreign policy or its supporting program, understand how their program objectives and priorities are supported by, mandated by, or in conflict with associated laws, mandates, directives, policies, guidance, standards; and what programs align with what Joint Strategic Objectives and Goals and priorities to achieve the mandatory results.

This mapping is necessary to:

- Ensure compliance with the applicable laws, mandates, directives, policies, guidance, standards, and Joint Strategic Objectives and Goals
- Facilitate decision-making and ensuring these decisions are made with the appropriate authority and correct supporting information
- Ensure the program or project is focused on doing the right things and is achieving the desired and/or mandatory results.

New Requirement Category: Collaborate to Standardize and Improve Effectiveness of Processes, Systems, and Operations identifies the need to standardize and improve processes, systems, and operations across State and USAID. This standardization and improvement needs to be accomplished at the enterprise level by all organizational units who are responsible for performing all or a piece of the process, system, or operation. This effort involves all personnel (whether State, USAID, or another federal agency) in collaboration and work towards describing and specifying their role in the current process, system, and operation.

New Requirement Category: Improve Understanding and Alignment of Roles and Responsibilities identifies the need to refine the current set of assigned roles and responsibilities within a program or project across State, USAID, other federal agencies, and state and local governments so that unnecessary duplications are eliminated, similar ones are standardized, and they all are re-aligned so that they meet the new goals of collaboration set by senior management. This effort is necessary to ensure that everyone understands his/her new roles and responsibilities and are working towards the same joint strategic objectives and goals, as well as their collective program objectives, goals, and priorities.

New Requirement Category: Improve Federal Policies, Strategies, and Approaches to Ensure the Security and Safety of Workers in Hostile Environments identifies the need to examine existing federal policies, strategies, and approaches to identify opportunities for improvement for providing a secure and safe environment for all State and USAID employees and their contractors working in a hostile and dangerous environment. This effort is necessary to ensure all available avenues are explored and precautions are taken to provide workers with a secure and safe workplace.

2.3: Implications of Joint Business Requirements

The 17 joint business requirements focus attention on three collaboration-related areas and two management-related areas where management consensus indicates that improvement is most needed.

Collaboration-related areas are:

- **Improve efficiency of activities.** Thirteen of the requirements address the question: *"Are we doing things right?"*
- **Improve alignment of activities.** Six requirements deal with the problems employees face when trying to cross bureau boundaries—whether State or USAID.
- **Improve communication of information and coordination of activities.** Eleven of the 17 requirements were identified by State when employees encountered communication and coordination problems when trying to get bureaus to work together on a common cause.

State and USAID bureaus that now have to work together to improve these three areas should conduct a review to reduce, neutralize, or eliminate any inconsistencies and impediments found.

The review should look for challenges to:

- Communicating and disseminating information among these involved parties
- Synchronizing joint activities
- Exchanging information, lessons learned, and best practices to facilitate a common understanding
- Sharing the limited resources and competencies to effectively and efficiently operate in the new collaborative environment

The review should address the "Improve Exchange and Use of Knowledge Resources" and "Collaboratively Standardize and Improve Effectiveness of Processes, Systems, and Operations" joint business requirements.

Management-related areas deal with the effectiveness of our joint efforts and call for senior management attention and direction in two areas:

- **Improve Management of Programs** addresses the need for program management improvement across State and USAID functional and regional bureaus. This issue focused on members of JPC working groups who found inconsistent operational models, processes, systems, and policies hindering their efforts when they attempted to reach across their organizational boundaries to help one another. It is recommended that senior management from State and USAID focus on helping

bureaus to track and account for their program resources in order to share and make optimal utilization of those resources and meet their objectives—on time and within budget.

- **Improve Alignment of Policies** relates to the JPC and JMC working groups' efforts to make existing incompatible operations, systems, and processes work well together. Members of the working group identified differences and inconsistencies in: 1) policies between State and USAID; 2) State and USAID policies with International and federal law and federal mandates and directives; and 3) objectives and priorities within similar programs between State and USAID. It is recommended that these issues be raised for management resolution and direction.

2.4: Conclusion

The thread that runs through these new and emerging requirements is *collaboration*—both as a want and a need and as an acknowledgment of obstacles and impediments. At a conceptual level, given the knowledge-dependent work of the two agencies, this drive toward collaboration may find its best representation in knowledge management—in the rational management and organization of programs, policies, procedures, and technologies that enable knowledge sharing across organizational boundaries.

In our next chapter, we build on this thread of collaboration to discuss the current state of knowledge management at both State and USAID and to provide a set of recommendations that will help the two agencies better share and leverage the information they produce and the knowledge they possess in advancing the foreign policy and development assistance goals of the United States.

Chapter 3:

Knowledge Management at State and USAID

Sharing Knowledge and Empowering Knowledge Workers

The ability to organize information so that it becomes a knowledge resource, to access the knowledge base anywhere/anytime, to disseminate knowledge, and to secure knowledge is key to meeting emerging business requirements. This chapter explores the current state of knowledge management and sharing at both agencies, focusing on the efforts of each agencies' central knowledge management (KM) offices and the role they play in knowledge sharing efforts across the enterprise.

As mandated by the Joint Strategic Plan (JSP), JMC, and JPC, knowledge sharing and management is an important strategic priority and a candidate segment for joint operations, technology, and management. Our analysis in this chapter is intended to lay a foundation for joint KM efforts going forward, focusing on largely non-technical considerations that will help the two agencies bring together their KM efforts to the benefit of the personnel within each agency, in the field, and at headquarters.

Today, State and USAID are engaged in the challenging process of evaluating the ways they can work together. For this year's EA, teams from both agencies are evaluating information security and telecommunications to assess the degree to which each organization can function more effectively and efficiently by collaborating on operations, technology, and processes.

This mandate to work together more closely will proceed to different segments. In this chapter, we focus on one of these potential segments—KM—and provide a brief As-Is view of KM today in State and USAID and make several recommendations that can help the two agencies begin to work together more effectively.

KM presents an opportunity for considerable collaboration. USAID and State are large-scale knowledge producers and consumers that share a wide range of complementary activities. Each organization stands to benefit by the information and knowledge gained by the other and by the cross-pollination of skills and expertise a well designed KM program would enable.

As important, USAID and State bring complementary skills sets and experience to the overlapping priorities and missions, which increases the possibility that bringing people together will produce new ways of thinking and acting. At a high level, the potential benefits of synergies and cross-pollination of skills and expertise across these organizational boundaries are significant.

In this chapter, we consider KM as a potential segment for cooperation and collaboration. To do this, we explore the current state of joint KM at both agencies, document current and planned joint projects, and, as a set of recommendations, provide a joint EA perspective on opportunities for joint knowledge management.

3.1: A Strategic Imperative

“We will strengthen each organization’s knowledge management systems and investigate the feasibility of common enterprise portal technology and standard IT security solutions for both agencies.” (Department of State and USAID Strategic Plan FY2004-2009, 36)

This shared reliance on knowledge to fulfill its mission is recognized by both organizations: State and USAID have each developed separate but parallel Knowledge Management strategies. The working group supporting the JMC is looking to increase collaboration to better use the resources of both agencies.

State and USAID produce a wealth of highly relevant and targeted information and knowledge. In more general terms, the formulation of foreign policy and development assistance are knowledge-dependent activities, as decision makers in both organizations rely on accurate, up-to-date information and institutional knowledge and experience to make effective decisions in high-velocity environments.

This mandate for cross-agency knowledge sharing appears throughout the range of joint strategic and management documents produced over the past year, including the Joint Strategic Plan and the working papers of the Joint Management Council (JMC) and the Joint Policy Council (JPC). Both State and USAID have identified knowledge-sharing as a joint priority and have identified KM collaboration as a highly beneficial activity.

Currently, State and USAID are working together informally to identify potential KM joint projects. The first major joint project, the Economic and Development Data Resources catalog, is in its final development stages. It will improve access to a wealth of economic and social information resources in each agency, capitalizing on the new ability of personnel in State and USAID to tap into the other’s intranet.

In addition, State and USAID are currently pursuing or plan to pursue the following projects:

- Participate in reciprocal KM groups
- State-led panel discussion in USAID Summer Policy Institute
- USAID participation in State search engine Steering group
- Participate in development of Joint KM web page (KL/KfD)
- Give joint presentation at major KM conference
- Compile joint economic/development data resources catalog
- Conduct search engine pilot program with econ/development officers
- Establish the e-Rooms collaboration tool for joint economic or search engine groups
- USAID participation in the Groove collaboration tool pilot project (Iraq/HIU)

- Assess scope of joint knowledge asset inventory
- Assess feasibility of common expertise locator network
- Begin development of joint logical databases
- Study KM aspects of network convergence, if applicable

The senior management and leadership of State and USAID have also identified skills and expertise as critical components of joint KM initiatives:

"The critical alignment of U.S. foreign policy and development assistance points to an increased need for cross-pollination of skill sets across both organizations" and "closer alignment of foreign policy and development assistance can only occur if our employees are armed with the professional training needed to carry out our mission. When appropriate, the Department and USAID will collaborate on developing curriculum in shared areas such as management, leadership, and language courses." (JSP, 34)

Knowledge, skills, expertise, curriculum, as well as more basic information and data sharing are all components of KM—and a successful and effective KM strategy will help ensure that both State and USAID fully leverage their human capital and knowledge across organizational boundaries.

3.2: Analytical Model

The following discussion employs a model that comprises five *functions* a generic KM organization can perform as part of an enterprise-wide KM program. We will evaluate the extent to which State and USAID perform these functions separately, and jointly, and identify opportunities and synergies that can benefit from greater cooperation and collaboration.

The five functions are:

- Strategy Development
- Core Applications
- Training, Instruction, and User Education
- KM Services
- Project Management

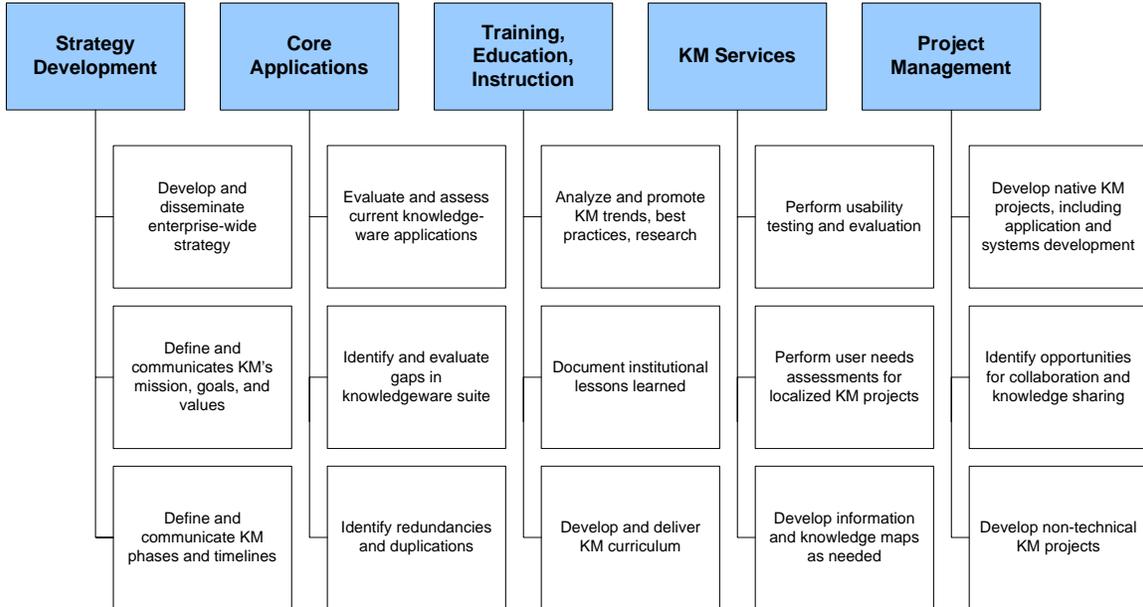


Figure 3.1, KM Analytical Model: In this diagram, we have displayed each of the five functions across the top and have listed beneath the activities that can be pursued as part of that function. In the following sections, we carry on these activities and attempt to group ongoing or planned State and USAID activities. This model is used for analytical purposes only: in practice, there can be considerable overlap between functions. For example, Project Management, by design, brings together activities from across functions into different projects to form a KM organization's portfolio.

3.3: Strategy Development

For this function, a KM organization defines, disseminates, and supports an enterprise-wide KM strategy. This strategy includes high-level KM goals and values, a mission statement, phased projects and priorities, and possible timelines for KM program implementation.

Currently, both USAID and State perform this function. In the past several years, each agency has published and disseminated a strategic plan; currently, though, there is no official joint KM strategy governing and guiding their collaboration.

For USAID, this KM strategy is known as *Knowledge for Development (KfD)*. In its KfD strategy, USAID has mapped out a high-level strategy and identified core applications and projects, along with a phased approach to implementation. The KfD strategy is supported by the KfD portal, which is USAID's central KM portal and access point to other secondary KM applications, services, and tools.

The KM organization at State has also produced a KM strategy, known as *Knowledge Leadership for Diplomacy (KL)*. This strategy document presents a State-wide KM strategy and identifies possible activities that would increase knowledge sharing at State. The *Knowledge Leadership* strategy was adapted for prominent inclusion in the *IT Strategic Plan Fiscal Years 2006-2010*.

Although a joint KM strategy is not currently in place, several planned joint activities suggest greater collaboration at the strategic level.

These planned joint activities include:

- Participating in reciprocal KM groups
- Participating in a State-led panel discussion in USAID Summer Policy Institute
- Participating in development of Joint KM web page (KL/KfD)
- Giving a joint presentation at major KM conference



Figure 3.2, The Strategy Development Function: In this diagram, we have started with basic activities within the Strategy Development function on the left, listed current organization-specific activities in the middle, and listed the planned or ongoing joint activities to the right. Although there is not a specific activity to develop a joint KM strategy, these planned and ongoing activities suggest a level of coordination at a strategic level and, in the example of the joint KM website, the possibility and opportunity for the two organizations to speak with one voice regarding KM issues across both agencies.

3.4: Core Applications

For this function, a KM organization is responsible for evaluating, developing, or implementing applications that are deemed to be essential for knowledge sharing. These core applications are of use to different KM projects and serve generic, enterprise-wide KM needs. Possible core applications include content management systems, collaborations tools, and search engines.

These core applications are sometimes referred to as *knowledgeware* applications, because they are viewed as the basic technological building blocks for KM projects. In this function, a KM organization would also be responsible for identifying, assessing, and promoting core applications that are already in place and to identify redundancies or duplication across both agencies. For redundant or duplicative applications, the KM organization would assess the feasibility of consolidation or phase-out.

Today, to differing degrees, State and USAID perform this function. The KM organization at State identifies existing knowledgeware applications and helps evaluate potential applications, including content management.

USAID performs the basic identification and evaluation component of this function but has gone a step further and has deployed several core knowledgeware applications to its KfD portal.

The USAID core knowledgeware suite available on the KfD portal includes:

- Community of practice (CoP) tools
- ListServ tools
- Story telling portal and supporting web application
- Distance learning tools

State and USAID plan to collaborate more extensively in this function in the first quarter of 2005.

In particular, planned joint efforts include:

- USAID participation in State's search engine Steering group
- Conduct search engine pilot program with econ/development officers
- Implement eRooms for JEA effort
- Establish e-Rooms for joint economic or search engine groups
- USAID participation in Groove pilot project (Iraq/HIU)
- Assess scope of joint knowledge asset inventory



Figure 3.3, Core Applications: The Core Applications function revolves around a KM organization taking the lead on identifying current knowledgeware applications and redundancies and duplications. This function also includes defining opportunities to build out the knowledgeware suite to better serve the needs of the enterprise. These core applications should be promoted and made available to projects and groups within the enterprise, both as a resource for localized projects as well as a building block for projects initiated by the KM organization.

3.5: Training, Education, and Instruction

In this function, the KM organization is responsible for assembling KM research, case studies, and best practices from both the public and private sector and academia and then using this expertise to educate interested parties involved in localized KM projects. In addition, the KM

organization acts as repository for KM expertise and promotes KM best practices, latest trends and research, and institutional experience and lessons learned.

A key component of this function is curriculum and course development to ensure that interested parties within State and USAID have access to classroom and online training, instruction, best practices, and other resources to support knowledge sharing and KM projects. To fulfill this function, a KM organization must include native expertise and experience, not only to be a source of KM expertise and experience, but also to bring that expertise to the training and user support roles of this function.

USAID has an emerging Training, Education, and Instruction function, which includes training for *knowledge coordinators* and the aggregation and dissemination of KM-related resources that can be used by interested parties to guide localized KM efforts. At USAID, knowledge coordinators act as KM experts for each region with USAID's organization. The first knowledge coordinator training event was held this year in Botswana. USAID is also in its second year of a knowledge fair initiative. These knowledge fairs bring together staff from across USAID to showcase the agency's KfD assets and activities.

Topics covered in the most recent knowledge fair include:

- Knowledge for Development in the 21st Century, USAID Using Knowledge as a Tool for Development
- Essential Elements for a Successful KM Program, KM Best Practices for USAID Operations.
- USAID's Complete Knowledge for Development (KfD) Strategy and USAID's Future Directions.

USAID supports these knowledge fairs with a seminar series, called the Knowledge for Development Seminar Series.

Topics covered in the seminar series for 2003 included:

- Knowledge-Sharing in Economic Growth, Education and Health—Balancing Network and Database Strategies
- How to Build a Knowledge Map
- How to Organize a Community of Practice
- How Information Technology (IT) Can Support Knowledge-Sharing and Collaboration

USAID has also collected and produced a significant amount of documentation to support its community of practice application and the agency's eLearning capabilities and resources. The KM team at USAID also maintains a KM library on site.

Currently, State does not perform any activities in this function and there are no joint projects in this function planned, although USAID and State have discussed pursuing joint training initiatives.

Training, Education, and Instruction	Organization-specific activities	Planned and Ongoing Joint Activities
<p>Possible Activities</p> <ol style="list-style-type: none"> 1) Collect KM trends, best practices, and research 2) Document institutional lessons learned 3) Develop KM curriculum 4) Develop and deliver knowledge coordinator curriculum 	<p>USAID:</p> <ol style="list-style-type: none"> 1) Develop and deliver knowledge coordinator and CoP training 2) Establish KM library 	<p>No Activities Planned</p>

Figure 3.4: The Training, Education, and Instruction function: This function entails the aggregation of content, knowledge, and native KM expertise so the KM organization can fulfill an educational and support role for the enterprise as a whole. USAID has made a notable start in this function with its knowledge coordinator training, which helps to achieve the necessary balance between a central organization overseeing KM efforts and the need for KM best practices and knowledge to be disseminated and embraced throughout the organization.

3.6: KM Services

For this function, the KM organization consults on localized KM projects. In addition, the KM organization is an active contributor in the design, requirements definition, and analysis of KM or KM-related projects to ensure adherence to best practices and institutional lessons learned and robust user advocacy throughout the project lifecycle.

KM services can include:

- Usability testing and evaluation
- User needs assessment by interview, focus group, questionnaire, or survey
- Project-specific information and knowledge mapping and data definition
- User advocacy
- KM lifecycle of best practices and lessons learned to be used in each KM project
- Lessons learned documentation and case study development to capture institutional experience with joint KM projects

Much like the Training, Education, and Instruction function, this function requires skilled and experienced KM staff who are versed in evolving best practices and approaches and experienced with the design and development of KM systems and projects.

Currently, USAID and State perform limited KM Services, including participating in workshops, working groups, and steering committees.

The KM organization at USAID has implemented an *After Action Review* initiative, where a facilitator from the KM team can be brought in by groups within USAID to help team members identify, discuss, and draw conclusions and lessons learned from past projects. Employing *After Action Review* techniques used in the Department of Defense, KM staff are able to help

teams share their experiences, interpretations, and lessons learned in a face-to-face setting and to leverage lessons learned to build leadership and problem-solving skills.

The KM organization at USAID has also undertaken a requirements definition initiative, working with users to understand user needs and requirements for possible systems and projects. Requirements definition for an enterprise-wide collaboration tool is currently underway. The KM organization has also begun to evaluate potential collaboration tool packages to determine if any of the COTS products adequately serve the user requirements identified in the requirements definition initiative.

Today, State participates in a consultative role in a range of localized KM or KM-related projects within State. These projects include the State Messaging and Archive Retrieval Toolset (SMART), the International Cooperative Administrative Support Services (ICASS), the Post Administration Software Suite (PASS), the Public Diplomacy Research Center, and the Collaborative Applications Solutions Forum. The State KM organization has conducted numerous focus groups and other contacts within State and with USAID to provide user requirements for an enterprise-wide search engine on the State intranet.

The USAID KM organization plays an important role in guiding the eRooms and Groove implementations by identifying user requirements through interviews and surveys and by evaluating available commercial-off-the-shelf (COTS) applications for suitability.

In this function, the following joint KM services are planned:

- USAID is participating in State Search Engine Steering Group
- Compiling Joint economic/development data resources catalog
- Assessing scope of joint knowledge asset inventory
- Assessing feasibility of common expertise locator network
- Beginning development of joint logical databases
- Studying KM aspects of network convergence, if applicable

KM Services	Organization-specific activities	Planned or Ongoing Joint Activities
<p>Possible Activities</p> <ol style="list-style-type: none"> 1) Perform usability testing and evaluation and user needs assessment 2) Develop information and knowledge mappings 3) Provide KM perspective to localized KM or KM-related projects 	<p>State:</p> <ol style="list-style-type: none"> 1) Perform IT needs survey 2) Participate in search engine and content management application evaluations <p>USAID:</p> <ol style="list-style-type: none"> 1) Perform collaboration tools user needs assessment 2) Evaluate COTS collaboration tools 3) Facilitate after action review sessions 	<ol style="list-style-type: none"> 1) Assess scope of joint knowledge asset inventory 2) USAID participation in State search engine Steering group 3) USAID participation in HIU Groove pilot project (Iraq)

Figure 3.5, KM Services: Like the Training, Education, and Instruction function, this function includes activities that enable a centralized KM organization to play an important role ensuring that best practices and standards are followed and the needs and interests of users are appreciated and reflected in the system design. This function is consultative, meaning the KM organization participates in a range of localized KM projects and initiatives, providing guidance, leveraging expertise, and playing an important user advocacy role in the design process. Like the previous function, this function enables a centralized authority to maintain and disseminate enterprise-wide standards while leaving much of the initiative for projects to reside at the local level.

3.7: Project Management

In this function, a KM organization defines and champions KM projects, seeks funding for those projects, and acts as project lead. Unlike the KM services function, where the KM organization does not originate the project but acts in a consultative role, this function entails the KM organization acting as project lead from concept to implementation and maintenance, owning the project throughout the project lifecycle.

In this function, the KM organization may bring together one or more core applications, identify relevant users and information and knowledge mappings, and work to design the system to meet user needs, security requirements, and technical capabilities.

Currently, the USAID KfD office has made significant progress in this function. Beyond the After Action Reviews and the requirement collection efforts discussed in the KM Services section, USAID has brought together core applications, user needs assessments, and requirements definition and implementation together for its KfD portal and its *community of practice* (CoP) project. These projects help illustrate the value a KM organization can bring to the enterprise as a whole by developing and leading projects that advance the goals of knowledge sharing and collaboration.

The KM organization at State has undertaken and completed its own user survey of IT needs. To complete this survey, the KM organization at State polled Foreign Service Officers (FSOs) in 2003, with almost 900 FSO's responding to the poll. This survey and results are available on

the eDiplomacy web-page on the State intranet. More recently, the KM organization at State surveyed FSOs concerning the use of unofficial email services for work. More than 1,000 FSOs responded.

In the first quarter of 2005, USAID and State are planning to build out activities in this function to promote greater knowledge sharing and expertise identification. To date, the jointly developed *Economic and Development Data Resources* portal is the first major activity in this function, as the two KM organizations worked together to define project scope, user needs and requirements, and information needs and assets.

In this function, the two organizations are planning to:

- Compile Joint economic/development data resources catalog
- Assess scope of joint knowledge asset inventory
- Assess feasibility of common expertise locator network
- Begin development of joint logical databases



Figure 3.6, Project Management: The most expansive of the five functions, Project Management entails a KM organization taking a lead role in identifying candidate projects, designing the project, defining user requirements, and leading the project from concept to implementation. It is important to note here that the projects that can comprise a KM portfolio are not necessarily technology projects, and, in addition, do not need to be enterprise-wide projects. The role here is to define a portfolio of projects based on opportunities identified within the enterprise. These opportunities can be small, microprojects design to leverage a KM system for a targeted group of users or larger scale efforts that bridge both organizations.

3.8: Recommendations

In the KfD strategy, the authors, referring to projects within USAID only, write that:

“USAID has a number of KM initiatives in place right now. However, lacking the overall leadership and framework of a common agency knowledge-sharing strategy, individuals, missions, and bureaus have had to develop ad hoc solutions to address many pressing knowledge sharing needs. Although these ad hoc solutions are to be commended, the drawback with the many on-going activities is that we have no clear agency-wide means to know and share what is already working and to use already proven solutions when similar knowledge sharing needs arise. The KfD strategy seeks to synthesize knowledge sharing activities and resources already in use, while laying a strong foundation on which to build a truly cross-cutting, agency wide Knowledge for Development capability.”

Although, in its original context, this quote describes the rationale for a USAID-wide approach to KM, it can also be used in our current circumstances. Today, State and USAID face similar challenges and should explore similar solutions as we become more efficient and effective in using knowledge sharing to better realize our missions and goals.

At both agencies, management, guided by Presidential and Congressional mandate, have identified knowledge sharing as a high joint priority. In addition, interested parties throughout State and USAID have initiated projects, both localized and with enterprise-wide scope, to meet the knowledge sharing and management needs of specific groups within each agency.

But, as noted in the passage that begins this section, the health of knowledge sharing within any enterprise depends in large part on the coordination, guidance, and role of a central KM organization, capable of representing the needs and interests of the enterprise while supporting the initiative of localized efforts and projects.

To be successful, a KM organization must strive to continually and rigorously align its efforts with the strategic priorities of the organization, the concrete business needs of its users, and the organizational culture and environment in which it operates. This multifaceted and strict alignment is a precondition for adoption—if the KM system doesn't help meet the needs and preferences of its users and the priorities of the organization, adoption will suffer and, like many KM systems before, will remain neglected and underused.

To make the goal of knowledge sharing even more elusive, KM in a large enterprise can often be a difficult balancing act—between the needs, standards, and goals of the enterprise with the initiative of smaller units within that organization trying to use technology to solve their immediate or long-term business needs

Finally, KM is often viewed primarily as a technology problem, and large organizations have often implemented systems that solved theoretical KM problems with robust functionality and leading edge design but which, when implemented, failed to meet the functional needs of the real-world users the system theoretically served.

From the joint EA perspective, the challenge to the KM organizations at both agencies will be to address and overcome these three basic KM challenges—specific and rigorous alignment of KM efforts with business and strategic needs, the balance of centralized influence and localized initiative, and an appreciation of the human and organizational/cultural components of KM success.

Recommendation 1: Develop Joint KM Strategy

Although both organizations have well developed individual strategies, a joint strategy helps align KM goals and objectives across State and USAID, define the grounds of cooperation and collaboration, and identify joint KM goals and values that will guide future and ongoing efforts. A joint KM strategy would also benefit from the specific and clear linking of joint KM activities to the priorities set forth in the Joint Strategic Plan. This strict alignment helps ensure that joint activities achieve specific strategic and business goals.

Recommendation 2: Evaluate joint Knowledgeware suite

This activity is already planned. In the JMC working papers, there are several joint activities where staff from both organizations are working together to assess and evaluate existing knowledgeware applications, including Groove and eRooms, search engines, and expertise locator systems. In addition, in our data collection, we found that KM staff intend to participate in inter-agency discussions about possible content management systems.

These planned activities can be supplemented with a focus on gaps in the joint knowledgeware suite, including assessing USAID's CoP-building application as an enterprise-wide solution. In addition, the KM organizations can also work to identify possible innovative and emerging knowledgeware options or participate in wider enterprise-level discussion about chat/IM systems, other collaboration tools, or personal webpage-building applications.

Recommendation 3: Launch joint initiative to identify, define, and classify a set of information assets

As part of the USAID/State Joint Enterprise Architecture, v.3, we have collected and analyzed a range of information flow data to better understand the organization and operations of the two organizations. As a starting point, these information flows and information categories provide the building blocks for a KM project interested in mapping out its information and knowledge assets and to identify shared information needs across organizations.

These information categories and flows, though, are only a start that can point toward opportunities for greater and more productive information and knowledge sharing. Further research and analysis would be required to build an actionable information and knowledge map.

Recommendation 4: Build out expertise of KM organization to support Training, Education, and Instruction function

Currently, the Training, Education, and Instruction function is the least mature function within both organizations. Going forward, resources and time should be devoted to develop internal KM expertise, especially in the fields of user support and education, lessons learned and best practices, and knowledge coordinator training.

On this point, USAID's initiative to train knowledge coordinators is a promising start. The role of knowledge coordinators is beginning to be appreciated as a key component to the success of KM projects, as these local KM experts can have a powerful effect on end user adoption and adherence to KM standards and best practices. In addition, they serve as a bridge from the centralized KM function and local initiatives, ensuring that the interests of the enterprise are represented and understood while ensuring that localized feedback and experience shapes the design and content of the KM system.

Recommendation 5: Identify joint microprojects that meet specific business and user needs

In the course of our data collection, we identified a potential area that can benefit from a small-scale KM project. In our data collection, we identified the rotation of Foreign Service (FS) personnel at Post as an opportunity for improved knowledge sharing using web-based or other electronic means. In effect, a small-scale project can be developed where current FS personnel are given a means to communicate, perhaps with a basic website or message board, with his/her successor at the same Post.

Several FS personnel noted that often there was not always overlap in assignments and they did not have time to brief incoming FS personnel about their role at Post. This project can be undertaken as a pilot, starting with a small group of FS personnel and, after testing and feedback, expanding to become part of the standard process of personnel change at Post. And, as important, this type of project provides staff with the opportunity to get first-hand experience with enabling knowledge sharing and developing a small-scale prototype KM system.

On this point, the *Knowledge Leadership* strategy reinforces that personnel transition is a target for KM focus, and the KM organization has promoted classified websites as an easily accessible information repository for incoming personnel. In addition, the central theme of State's summer policy seminar at USAID in 2004 was the challenge of transferring knowledge among personnel in high-turnover, critical emerging missions.

Recommendation 6: Align KM strategy with strategic priorities in JSP

While both organizations have aligned their KM strategies with a high-level strategic imperative to better share knowledge across and within organizations, a tighter alignment with specific priorities and in support of strategic goals will ensure KM programs are focused, relevant, and useful in helping both agencies achieve their mission.

This recommendation can include identifying logical databases as information repositories that support these strategic priorities. With the logical databases identified, the KM organizations of State and USAID can design ways to graft KM tools and opportunities to the logical databases. These KM tools can be collaboration tools, workshops, and expertise profiles that enable staff at both agencies to span organizational boundaries to exchange information, knowledge, experience, and expertise.

Recommendation 7: Develop joint KM standards and best practices

The organizational model used in this chapter attempts to balance the need for a central KM presence with the initiative of groups and teams within each agency to conceive of, design, and develop their own projects to meet their KM needs.

Part of the responsibility of the central KM organization is the development and publication of KM standards and best practices, as well as the dissemination of recent trends and developments that can shape organizational KM efforts and projects. The standards and best practices ensure that the real-world information needs of users play a guiding role in system development and design. In addition, this responsibility can include the development of usability testing and evaluation services and user needs assessments, as well as other services for data collection, requirements definition, and user support for KM projects.

Recommendation 8: Develop a joint prototype CoP along thematic or functional lines

This recommendation is closely related to *Recommendation 6: Align KM Strategy with strategic priorities in JSP*. As joint projects mature, State and USAID will need to develop and implement a standard KM portfolio of projects that can be quickly designed and deployed to provide KM support for emerging strategic priorities.

An initial building block for this standard KM suite of projects can be a *community of practice* (CoP), which would aggregate relevant content and users related to the priority. As part of this component, the KM organizations identify a set of users involved in the strategic priority and a set of collaboration tools to be deployed. An important next step in these joint efforts is to develop and pilot a prototype CoP for a specific strategic priority. This prototype is then to be re-used and modified to support any emerging strategic priority.

Currently, USAID has a number of CoPs in place, most set up and managed by local teams or individuals. To date, there are no joint CoPs implemented or planned. *The Knowledge Leadership for Diplomacy* strategy and the State Department's *IT Strategic Plan*, though, do provide an important gateway to this recommendation by discussing "Logical Knowledge Databases clustered around high priority topics."

These logical databases are envisioned as repositories of "high-quality information about high priority topics," but these information stores can be transformed, through the use of community outreach, collaboration tools, and the presence of assigned knowledge

coordinators, into knowledge-sharing opportunities where staff from USAID and State come together not only to access reliable information but also to interact with colleagues to share experiences, seek advice and input, and expand the range of contacts and expertise.

A joint KM initiative also develops a CoP along functional lines—bringing together individuals across both organizations who perform a similar job function or have similar functional responsibilities. Currently, State’s eDiplomacy office has planned and is beginning to implement an online community designed to support office management specialists (OMSs) within State.

This functional approach, coupled with a more thematic/strategic approach, offers a very promising way of bringing together individuals and teams from across both agencies into meaningful and relevant knowledge-sharing opportunities that support their current work functions and business needs while also supporting the strategic and business priorities of both foreign affairs agencies.

Unify Infrastructure and Simplify Processes

Assessing Collaboration for Today and Tomorrow

In the introduction, we discussed how collaboration—and its challenges—were the overarching themes that brought together and organized our work. As our research and analysis revealed, the obstacles to collaboration can take many forms. Unify and Simplify, as an analytical technique, is an important tool for identifying, at the process and technology levels, where there is incompatibility or redundancy. A Unify and Simplify analysis can draw out recommendations and prescriptions that help to achieve interoperability and uniformity and obviate some of the obstacles that stand in the way of the two agencies trying to work together.

For this chapter, we reviewed documentation from the Joint Policy Council (JPC) and Joint Management Council (JMC) to assess and identify the levels of alignment along a range of programs, business functions, and processes that these groups desired and envisioned. In this documentation, management at both agencies expressed goals and objectives, developed jointly, for how they would work together on programs, business functions, and processes. For our Unify and Simplify analysis, we systematize their goals and objectives for collaboration. Here we have focused on how the two organizations can improve their collective effectiveness by jointly unifying their infrastructure and simplifying their processes.

Since individual issues within a larger program or business function can have varying degrees of alignment, we have not made estimates of general alignment levels on large program areas or business functions. Additional discussions with OMB and the JPC/JMC working groups will address the degree of alignment on an issue-by-issue basis.

The second topic covered in this chapter is our joint information security and telecommunications Unify and Simplify efforts now underway. We cover joint analysis and recommendations for how the two agencies can better and more efficiently work together in these two important segments. We also cover levels of alignment for processes, organizations, and technology for both information security and telecommunications.

4.1: Unify and Simplify: A Strategic Imperative

The Joint Strategic Plan Fiscal Years 2004-2009 states State and USAID will pursue their "...aims through coordinated approaches and complementary programs."

The plan goes on to explain the alignment of our Diplomacy and Development Assistance programs:

"In pursuing our shared mission and goals in the international arena, U.S. development assistance must be fully aligned with U.S. foreign policy ... We will seek opportunities to program our resources in complementary and targeted ways. With the full support of the Secretary, our organizations will carry forward an agenda to implement new innovative strategies and eliminate redundancies, while ensuring that our diplomacy and development assistance produce results" (emphasis added, Department of State and USAID Strategic Plan FY 2004-2009, p.2)

Alignment levels are a tool the Joint Enterprise Architecture Team (JEAT) used to determine the current state of State and USAID collaboration with regard to their common programs, business functions, and processes.

4.2: Alignment Methodology

The establishment of a current alignment level creates a baseline from which future measures of alignment progress can be made. This baseline can also be used to determine a target alignment level.

When this alignment requirement is established it is then the responsibility of senior management of both agencies to determine if the potential return on investment merits the pursuit of further alignment progress.

We reviewed a wide range of sources to assess both current and desired alignment levels for a program, business function, or service area.

The assessment, provided in this chapter, was achieved by developing a standard set of criteria used to assess the level of alignment for each source.

Table 4.1, Alignment Evaluation Criteria, presents the standard set of criteria used. It identifies the available alignment options according to an increasing level of alignment capability—from minimal, level one (1) to maximum, level five (5). The levels of alignment and the titles used to describe them are the creation of the joint enterprise architecture team (JEAT), not of the JPC and JMC working groups themselves. The terms used are therefore not meant to have any subjective policy weight but are rather what the JEAT believes are objective descriptions of current or future possible reality. The alignment assessment was made based on the determination of which alignment factors best fit the description of work and results achieved, as described in the source document.

In addition, it is useful here to draw out the distinctions and to define two of the more difficult of the alignment levels: **level four (4), Collaboration** and **level five (5), Co-Alignment**.

Collaboration involves the sharing of resources and competencies for tasks within a common process performed by two separate organizations who are working together to produce a

single product or service. For collaboration, two separate processes and two separate organizations are maintained and retained. For example, in a *Collaboration* situation, organization A, using its process and its resources, works with organization B, using its process and its resources, to deliver a single service to a customer.

Co-Alignment requires that both organizations combine their resources and competencies for a single, integrated *end-to-end process* to produce a single product or service. Co-Alignment can entail either one process and two separate organizations **or** one process and one organization. Co-Alignment would require organization A to develop a single process with organization B that uses both of their resources and meets both of their requirements for delivering a service to a customer. Given this co-alignment situation, either organization A or organization B would be responsible for delivery of the service to a customer **or** organization A would assume responsibility for a part and organization B would assume responsibility for the remainder.

Co-Alignment does not necessarily entail the integration or merger of the two organizations. Instead, the focus should be on how two different organizations interrelate within the same process and deliver the same product or service.

This analysis is focused on the work performed and the processes involved to get the work done. The goal is to get a single, integrated, end-to-end **process** that is effective and efficient. A merger or integration is different than a co-alignment because a merger or integration is focused on the redesign of two separate organizations to achieve a single organizational structure **and** a single, integrated, end-to-end process.

Alignment Options	Alignment Factors					In Order To:	Achieve Results			
	Share Information	Share Strategies	Synchronize Activities	Share Competencies & Resources	Combine Competencies & Resources		Influence a Common Desired Outcome	Gain Efficiencies & Achieve Desired Outcome	Co-develop a Product or Co-deliver a Service	Combine Product or Service Offering into a Single End-to-End Delivery Process
Level 1 Communication	✓					✓				
Level 2 Cooperation	✓	✓				✓				
Level 3 Coordination	✓	✓	✓				✓	✓		
Level 4 Collaboration	✓	✓	✓	✓			✓	✓		
Level 5 Co-Alignment	✓	✓	✓	✓	✓		✓	✓	✓	

Table 4.1 - Alignment Evaluation Criteria

4.3: Programs and Business Functions in JMC and JPC

In this section we describe the program areas and business functions governed by the JPC and JMC for promoting collaboration between State and USAID.

To help achieve the diplomatic, development, and management priorities of the President, Secretary of State and the USAID Administrator, the Department and USAID have established joint policy and management councils.

The JPC ensures that development programs are fully aligned with, and fully inform, foreign policy goals. The Deputy Secretary and USAID Administrator co-chair the Executive Committee, which also includes: the Under Secretaries for Political Affairs (as overall coordinator), Global Affairs, and Economic, Agricultural and Business Affairs; the Director of Policy Planning; and USAID's Bureau for Policy and Program Coordination. Twelve working groups, led by senior Department and USAID officials, are addressing ways to improve coordination on key policy and program issues. The working groups cover the six world regions represented by the Department's geographic bureaus and the following functional areas: Democracy, Human Rights and Justice; Economic Growth; Humanitarian Response; Social and Environmental Issues; Security and Regional Stability; and Public Diplomacy. There are also three crosscutting issue working groups: Foreign Assistance Effectiveness, Outreach to the Muslim World, and Law Enforcement Issues.

The JMC oversees efforts to create more integrated structures to advance the goals of both institutions, support employees, and reduce costs. The Under Secretary for Management and USAID's Deputy Administrator co-chair the Executive Committee, which also includes the Assistant Secretary for Resource Management and Assistant Administrator for Management. Eight senior-level working groups are implementing joint business plans that are addressing the following issues: resource management, management services, management processes, information and communication technology, E-government, facilities, security, and human capital. Examples of specific accomplishments to date include: synchronizing budget and planning cycles; including Information Technology capital planning; providing mutual Intranet access; integrating shared administrative support services in the field; increasing coordination with the nongovernmental organization (NGO) community on security training; and implementing a pilot program for cross training and assignments.

Because the issues addressed by the JMC and JPC are comprehensive and complex, we have simply listed the programs and business functions addressed by the JPC and JMC but have not proposed alignment levels.

Additional discussions with OMB and the JPC/JMC working groups will address the degree of current and target alignment on an issue-by-issue basis.

A summary of JPC working groups and associated program categories is presented in the following table:

JPC Working Group	Associated Program Category	
Humanitarian Response Issues	Foreign and Humanitarian Assistance programs	The JPC has determined that assigning current and target levels of alignment is premature at this time. Subsequent discussions of the JMC/JPC working groups with OMB will address this issue.
Humanitarian Response Issues	Global Health and HIV-AIDS programs	
Humanitarian Response Issues	Population, Refugee, and Migration programs	
Security and Regional Stability	Security and Regional Stability programs	
Security and Regional Stability	International Crime, Narcotics Control and Counter-Terrorism programs	
Security and Regional Stability	Political-Military, Non-Proliferation and Arms Control programs	
Africa Region	Africa Regional programs	
East Asia and Pacific Region	East Asia and Pacific Regional programs	
Democracy, Human Rights, and Justice	Democracy, Human Rights and Labor programs	
Economic Development and Reconstruction	Economic, Commercial, and Agricultural programs	
Social and Environmental Issues	Social, Cultural, and Education Exchange programs	
Social and Environmental Issues	Environmental, Scientific, and Technology programs	
Europe and Eurasia Region	Europe and Eurasia Regional programs	
Near East Region	Near East Regional programs	
South Asia Region	South Asian Regional programs	
Western Hemisphere	Western Hemisphere Regional programs	
Public Diplomacy	Public Diplomacy programs	

Table 4.2 – JPC Working Groups and Programs

A summary of the JMC working groups and their associated business functions is presented in the following table:

JMC Working Group	Associated Business Function	
Human Capital; Management Processes; Security	Conducts Training support function	The JMC has determined that assigning current and target levels of alignment is premature at this time. Subsequent discussions of the JMC/JPC working groups with OMB will address this issue.
Security	Ensures Security of Resources support function	
Management Processes	Manages Department Operations and Supports International Activities management function	
Rightsizing	Manages and Coordinates International Activities management function	
Resource Management; Management Processes	Manages Financial Resources support function	
Management Processes; Facilities	Manages Physical Asset Resources support function	
Human Capital	Manages Human Resources support function	
Information and Communications Technology; E-Government	Manages Information Resources support function	
Management Processes	Provides Assistance and Support Services support function	

Table 4.3 – JMC Working Groups and Business Functions

Assessment of Joint Segment Architectures

The Joint Enterprise Architecture Team (JEAT) artifacts were assessed based on a description of the business processes identified in two different segment architectures: 1) Joint Telecommunications; and 2) Joint Information Security.

The JEAT was created to respond to the need for an examination of these IT service areas as directed by the Department of State and USAID Strategic Plan Fiscal Years 2004-2009.

Guidance specific to these two segment architectures includes:

- “The challenge in the coming years will be to implement our shared goals as seamlessly as possible. Our guiding principle is that we should pursue opportunities where the Department and USAID can create more integrated management structures to execute our goals and support our employees. We will reduce redundancies and costs for the taxpayer where possible.” (p.33)
- “Coordinate IT planning and common use of architecture and infrastructure.” (p.35)
- “Finally, we will develop a joint security architecture and a uniform and unified certification and accreditation process.” (p. 35)

Given this management direction, the JEAT was tasked to address the area of collaboration that is specific to the delivery and support of these IT segment architectures within State and USAID. This team either conducted workshops or interviews to identify the current State and USAID process associated with each service area.

They then examined each process to:

- Identify common activities
- Identify areas of duplication of effort between State and USAID
- Identify gaps, deficiencies, or inconsistencies in either or both processes
- Evaluate its effectiveness
- Determine the current and target level of alignment.

Each IT service area was assessed for their current alignment level (the work and results achieved today) and for their target alignment level (what they hoped to achieve in the future). Since a single definitive target alignment could not be made from the information available, a target alignment level with a minimum and maximum range was identified.

The results of this team’s efforts to forge agreements for continued collaboration, and assess the current and target are presented below.

4.4: Assessment of Joint Telecommunications Segment Architecture

The Joint Enterprise Architecture Team (JEAT) addressed areas of collaboration on the delivery and support of telecommunication services within State and USAID. More specifically, team members addressed the following areas within the Federal Enterprise Architecture (FEA) Information and Technology Management Line of Business (LoB) and Joint Business Architecture **Manages Information Resources** business subfunction from the Joint Enterprise Architecture version 2, of September 2003 that include:

- Voice Communications Services
- Wireless Communications Services
- Video Teleconferencing Services
- Data Network Services
- Messaging & Email Services
- Communications Support Services

The collected results for these telecommunications services are presented as if each of the services is a separate business process. The recommendations are based upon an initial analysis of State's and USAID's business processes and supported systems. Their scope does not yet encompass existing differences between the two organizations' business, risk management, legislative responsiveness, or cost-benefit models. These areas will be addressed in a later phase of architecture development. The JEA project's next phase, which includes integrated To-Be architecture development, gap analysis, and migration plan creation, will address areas of commonality and uniqueness inherent in the six service areas.

The following narrative identifies the joint agreements reached for these service areas, an assessment of current alignment levels, and minimum and maximum target alignment levels.

Assessment of Voice Communications Services

The Voice Communication Services process consists of a set of capabilities that support audio and voice communications. Connections can be permanent (via cable) or temporary (e.g., through telephone lines or other means of line access) or through communication links (e.g., PBX). The primary system for voice communications services is the telephone. The joint analysis addressed the unclassified voice telephone services since it has the potential for the most collaboration.

Two different Voice Communication Services categories were examined: one that provides services to State's overseas posts and USAID's missions and one that provides these services to their domestic customers. The agreements for each are presented separately below.

Overseas Voice Communications Telephone Support

State utilizes a government furnished telephone infrastructure. USAID allows its mission directors or executive officers to determine their required telephone support, except when they are located in a State facility.

- **Jointly Agreed Direction for Overseas Telephone Support:** Identify and work on common telephone service opportunities that can benefit both organizations overseas. For example, State is piloting a “Secure PBX” product that provides a process to identify users to provide services such as access to International Voice Gateway (IVG) lines from local telephones.
- **Assessment of Alignment Level of Overseas Telephone Support:**
 - o Missions co-located with State: Currently State and USAID are already at an **alignment level of five (5): Co-Alignment**, at co-located sites. Currently, all USAID Missions co-located with State Embassies utilize the State voice communications system. This alignment is supplied to USAID and all organizations located in a State facility. Collaboration at the **Co-Alignment** level provides both organizations with a single solution to meet basic voice communication needs and security requirements at a co-located facility.
 - o Missions not co-located with State: In this instance, State and USAID are at a **current alignment level of two (2): Cooperation**. This current level of alignment is feasible because of the differences in the organizations’ operating models and business requirements at sites that are not co-located. Level 2, Cooperation also leverages the capabilities associated with the government’s investment in overseas telephone services, where possible. The JEAT recommends a **Target Alignment of two (2): Cooperation**. This recommendation is additionally based on USAID’s need to maintain current functionality and control of cost and quality of voice services. USAID Missions that are not co-located with State Embassies have the ability to contract and manage their own voice communication services. If State voice communication services in the field meet Mission business and cost requirements, the Mission has the option to enter into an agreement with the Embassy for the voice services.

Domestic Voice Communications Telephone Support

State and USAID utilize similar service models domestically. This is due to the fact that up until six years ago, State provided these services to USAID. USAID acquired their own telephone service in 1998 when State service levels and funding requirements did not fully support USAID’s business and telecommunications model. Potential opportunities for evolution

in this service area will be explored in the segment architecture's next phase involving the creation of Migration Plans.

- **Jointly Agreed Direction for Domestic Telephone Support:** The Department of State and USAID have agreed to:
 - o Identify those process areas where collaboration will increase effectiveness and provide cost savings to both organizations. For example, new technology upgrades should be addressed in a collaborative fashion.
 - o Identify and work on common telephone service opportunities that can benefit both organizations. As an example, State is in the midst of a major telephone switch upgrade and USAID has a Voice Over IP capability, which, if accomplished jointly, can benefit both organizations.
- **Assessment of Alignment Level for Domestic Telephone Support:** Based on a review of the artifacts and observations of the Joint Enterprise Architecture Team, the Voice Communications Services process for domestic and overseas facilities has been assessed at the **current alignment level of one (1): Communications**, with minimum information being exchanged (e.g. numbering plans) at this point in time. The JEAT recommends State and USAID aspire to achieve a **minimum target alignment level three (3): Coordination**, and work toward a **target alignment level of four (4): Collaboration**, for domestic services. This degree of alignment is justified by the considerable technical similarities of both organizations and the services they receive. Further co-alignment of services between the two organizations is hindered by their different business models and methods used to identify funding sources.

Assessment of Wireless Communications Services

The Wireless Communication Services process consists of a set of capabilities that provide for communications supported by the technologies that use transmission via the airwaves (i.e. personal digital assistant [PDA], cellular, high frequency [HF], land mobile radio [LMR], and satellite communications [SATCOM]). Wireless services are classified into two major categories: handheld radio and other access devices. The agreements for each are presented below.

Radio Services address the use of short-range handheld radio systems and the longer-range high frequency (HF) radio systems. These services are focused on providing radio communications to State's posts and USAID's missions located overseas. State utilizes government-furnished VHF and UHF handheld and mobile radio system both domestically and overseas, including repeater systems. USAID utilizes this same State-provided infrastructure overseas and equips its own personnel with handheld radios in addition to vehicle radios to

support its missions. In addition State provides fixed long-range HF radios at its embassies, which are also utilized by USAID. This arrangement provides the basis for the alignment recommendations.

- **Jointly Agreed Direction for Radio Services:** The Department of State and USAID have agreed to:
 - o Identify those process areas where collaboration will increase effectiveness and provide cost savings to both organizations. For example, new technology upgrades should be addressed in a collaborative fashion.
 - o Identify and work on common radio service models that can benefit both organizations.
- **Assessment of Alignment Levels for Radio Services:** Based on a review of the artifacts and observations of the Joint Enterprise Architecture Team:
 - o We are at a **current alignment level of two (2): Cooperation**, with information being exchanged (e.g. frequency assignments) and sharing of overseas infrastructure.
 - o The JEA team recommends State and USAID aspire to achieve a **minimum target alignment of level four (4): Collaboration**, and work towards a **target alignment level of five (5): Co-Alignment**. This is justified by the considerable technical similarity between the two organizations and the services they receive.

Other Access Services address State and USAID's use of wired and wireless access devices, such as Personal Digital Assistants (PDA) and BlackBerry wireless handhelds.

- **Jointly Agreed Direction for Other Access Services:** The Department of State and USAID have agreed to:
 - o Provide a common access service
 - o Identify the joint program opportunities for these services. USAID has started a program that can support a joint deployment access services. State is currently running pilots programs in these areas.
- **Assessment of Alignment Level for Other Access Services:** Based on a review of the artifacts and observations of the JEA team, the Access Services has been assessed as follows:
 - o State and USAID are at a **current alignment level of zero (0): No Communication** due to the fact the two organizations are not currently exchanging any information. This Access Services process should be at a

minimum target alignment level of four (4): Collaboration, which will require State and USAID to collaborate in the development and managing of access services. The JEA team recommends that State and USAID work towards a **maximum alignment level of five (5): Co-Alignment**, because of the following factors:

- Evolving technologies and security risks
- Definition of joint business requirements
- The Department of State and USAID Strategic Plan's recommendation to "Consolidate technical and operational support"

Assessment of Video Teleconferencing Services

The Video Teleconferencing (VTC) Services process consists of a set of capabilities that support video and audio communications sessions, which may also include the exchange of graphics and data among geographically dispersed people.

- **Jointly Agreed Direction;** The Department of State and USAID have agreed to:
 - o Provide a common service
 - o Improve collaborative efforts, offering VTC services to take advantage of their common technology infrastructure and requirements.
- **Assessment of Alignment Level:** Based on a review of the artifacts and observations of the Joint Enterprise Architecture Team, the Video Teleconferencing Services process has been assessed at a **current alignment level of one (1): Communication**, since USAID is using some State VTC capabilities now. This process should be at a **minimum target alignment level four (4): Collaboration**, which will require State and USAID to share information. The JEA team recommends that State and USAID work towards a **maximum alignment level five (5): Co-Alignment**, because of maturing VTC processes and the similarity between the two agencies in technologies and business requirements.

Assessment of Data Network Services

Data Network Services consists of the execution, maintenance, and support of devices, facilities, and standards that comprise the computing and networking within and between enterprises. (e.g., Data networks, workstations, platforms, servers; OSI Layer 2 & 3)

- **Jointly Agreed Direction for Data Network Services:** Department of State and USAID have agreed to:

- o Conduct a joint OpenNet/AIDNet pilot to assess capabilities and opportunities for integrating the two networks.
- o Reestablish a joint infrastructure working group to begin the planning for the pilot and identify common areas for collaboration. An example for USAID is its need to replace part of its infrastructure, which should provide an opportunity for collaboration.
- **Assessment of Alignment Services**
 - o We are at a **current alignment level of two (2): Cooperation.**
 - o State and USAID have agreed to pilot OpenNet/AIDnet integration at several overseas posts to assess its feasibility and costs. Based upon the success of this pilot, we should at the bare **minimum be at alignment level of four (4): Collaboration.**
 - o We recommend that State and USAID work towards a **maximum alignment level of five (5): Co-Alignment.**

Assessment of Messaging and Email Services

Messaging and Email Services include the set of capabilities that support keyboard conferencing and the electronic exchange of messages, record traffic, correspondence, documents, or other information over a network or the internet.

- **Jointly Agreed Direction:** The Department of State and USAID have agreed to:
 - o USAID participation in the SMART (State Messaging, and Archive Retrieval Toolset) program. They have an observer at the SMART Steering Committee meetings and receive periodic program and technical updates.
- **Assessment of Alignment Level of Email Services**
 - o We are at a **current alignment level of two (2), Cooperation.**
 - o SMART is identified to replace both email and message services for the Department of State. USAID has agreed to utilize the SMART program, which currently should, at a bare **minimum, be at an alignment level of four (4): Collaboration.**
 - o We recommend that State and USAID work toward a **maximum alignment level of five (5): Co-Alignment** of email services through the SMART program.
- **Assessment of Alignment Level for Message Services**

- o State currently provides message (Telegrams/Cables) services to USAID, which is assessed as a **current alignment level of five (5): Co-Alignment**.
- o SMART has been chosen to enhance both email and message services for State, which would align both organizations to the previous **alignment level of four (4): Collaboration** with a **maximum alignment level of five (5): Co-alignment**

Assessment of Communications Support Services

Communications Support Services make up the set of capabilities that support the life cycle of the physical communications infrastructure (e.g., SONET rings, transmission systems, OSI Layer 1).

- **Joint Agreed Direction for Communications Support Services:** The Department of State and USAID have agreed to:
 - o Build upon the commonality between the two organizations in the use of SONET rings in the Washington, D.C. area and government circuit procurement procedures. Along with GSA contract vehicles, cooperation in these common areas provides a strong argument for collaboration.
- **Assessment of Alignment Level for Communications Support Services**
 - o We are at a current at **alignment level of one (1): Communication**.
 - o We should be at the bare **minimum alignment level of four (4): Collaboration**.
 - o We recommend that State and USAID work towards a **maximum alignment level of five (5), Co-alignment where possible**.

Summary of Alignment for Telecommunication Services

A summary of the current and target alignment levels for Telecommunications processes is presented in the following table:

Joint Enterprise Architecture Segment	Associated Service	Current Alignment Level	Minimum Target Alignment Level	Maximum Target Alignment Level
Telecommunications	Voice Communication Services Overseas	5, Co-Alignment (Co-located) 2, Cooperation (Non Co-located)	N/A	5, Co-Alignment (Co-located) 2 Cooperation (Non Co-located)
Telecommunications	Voice Communication Services Domestic	1 Communications	3, Coordination	4. Collaboration
Telecommunications	Wireless Radio Services	2, Cooperation	4, Collaboration	5, Co-Alignment
Telecommunications	Wireless Access Services	0, No Communication	4, Collaboration	5, Co-Alignment
Telecommunications	Video Teleconferencing Services	1, Communication	4, Collaboration	5, Co-Alignment
Telecommunications	Data Network Services	2, Cooperation	4, Collaboration	5, Co-Alignment
Telecommunications	Messaging Services	5, Co-Alignment	4, Collaboration	5, Co-Alignment
Telecommunications	Email Services	2, Cooperation	4, Collaboration	5, Co-Alignment
Telecommunications	Communications Support	1, Communication	4, Collaboration	5, Co-Alignment

The next phase of the Joint Telecommunications Architecture effort is to analyze the following service areas in a similar fashion as the above areas:

- Data Processing Services

In addition, final integrated To-Be architectures, gap analysis, and migration plans will be developed to support all of the telecommunication services.

4.5: Assessment of Joint Information Security Segment Architecture

The JEA team was created to respond to the need for an examination of Information Security as part of the Joint Department of State and USAID Strategic Plan. The team was tasked to address how the two agencies could collaborate on the delivery and support of information security services.

The following areas are explored within the FEA Information and Technology Management Line of Business and the Joint Business Architecture's **Ensures Security of Information Resources** business subfunction from the Joint Enterprise Architecture version 2, of September 2003:

- Information Security Policy Creation
- Information Security Training Services
- Certification and Accreditation Services
- Continuity of Operations Plan
- Security Services
 - o Antivirus & SPAM control
 - o Firewalls & Patch Management
 - o Identification & Authentication, Biometrics, Encryption,
 - o Intrusion Detection and Prevention
- Security Reporting
- Security Technology Development
- Security Management Plan

The results for these information security services are presented as if each of these services is a separate business process. Their scope does not yet encompass existing differences between the two organizations. These differences include business requirements, risk management, legislative responsiveness, or cost-benefit models. These areas will be addressed in a later phase of architecture development. In the JEA's next phase, the JEA team will develop the integrated To-Be architectures, perform a gap analysis, and create a Migration Plan that will address areas of commonality and uniqueness inherent in them.

The following narrative identifies the joint agreements obtained, an assessment of its current alignment level, and a target range of minimum and maximum alignment levels.

Assessment of Information Security Policy

The Information Security Policy creation process consists of tasks that create, update, approve, and disseminate information security policies based on the evaluation of existing federal legislation, regulations, and State's and USAID's business needs.

- **Jointly Agreed Direction:** The Department of State and USAID have agreed to:
 - o Mature their information security policy processes
 - o Collaborate on the development of information security policy that is applicable to both agencies
 - o Collaborate in the Department's Cyber Security Policy Development Working Group (CSPDWG)
- **Assessment of Alignment Level:** Based on a review of the artifacts and observations of the JEA team, the Information Security Policy process has been assessed at a **current alignment level of zero (0): No Communication**, between State and USAID. This process should be at a **minimum target alignment level of two (2): Cooperation**. This level would require State and USAID to share information and strategy. The JEA team recommends that State and USAID aspire to achieve a **maximum alignment level four (4): Collaboration**.

Assessment of Information Security Training Services

The Information Security Training process educates end users and IT professionals about their individual security responsibilities. These responsibilities must conform to the organization's security policies and individual security guidelines. Such training provides end users and IT professionals with the necessary knowledge to ensure the security of the organization's information systems.

- **Jointly Agreed Direction:** State and USAID have agreed to:
 - o Identify immediate IA Training events that can be administered jointly
- **Assessment of Alignment Level:** Based on a review of the artifacts and observations of the JEA team, the Information Security Training process has been assessed at a **current alignment level of zero (0)** between State and USAID. This process should be at a bare **minimum target alignment level four (4): Collaboration**. The JEA team recommends that State and USAID work towards a **maximum alignment level five (5): Co-Alignment**.

Assessment of Certification and Accreditation Services

The Information Security Certification and Accreditation (C&A) process requires a comprehensive evaluation of information and information systems.

- **Jointly Agreed Direction:** The Department of State and USAID have agreed to:
 - o Identify State's and USAID's C&A roles & responsibilities.
 - o Identify systems/applications that can be certified and accredited jointly, that require initial C&A, or recertification
 - o Develop Joint C&A Procedures
- **Assessment of Alignment Level:** Based on a review of the artifacts and observations of the JEA team, the Information Security C&A process has been assessed at a **current alignment level of one (1): Communication**. This process should be at a **minimum target alignment level four (4): Collaboration**. Meeting the **minimum target alignment level (4): Collaboration**, is required to address the development of a uniform and unified C&A process as identified in the Department of State Strategic Plan Fiscal Years 2004-2009. The JEA team recommends that State and USAID work towards achieving a **maximum alignment level five (5): Co-Alignment**.

Assessment of Continuity Of Operations Plan (COOP)

This area addresses the execution of contingency plans for operations during crises, unforeseen circumstances, or disruptions in normal day-to-day operations at both the system and enterprise level.

- **Jointly Agreed Direction:** The Department of State and USAID have agreed to:
 - o Mature collaboration on all COOP activities
 - o Collaborate on COOP activities that are applicable to both parties
- **Assessment of Alignment Level:**
 - o We are at a **current alignment level of zero (0), No-Communication**.
 - o We should be at a **minimum alignment level of three (3), Coordination**.
 - o We recommend that State and USAID work towards a **maximum alignment level of four (4), Collaboration**.

Assessment of Security Services

This area addresses processes, to include appropriate policies, executed to maintain the integrity of the organization's information security layers (i.e. confidentiality, integrity, access-control, non-repudiation, identification and authentication, audit, and system availability.)

These processes should address at a minimum the following: *Firewalls, Intrusion Detection and Prevention, I&A systems, Encryption, Digital Signature, Anti-virus Email filtering, Scanning and SPAM control, Patch Management, Audit Trail Capture and Analysis.*

In order to ensure that all processes were identified and analyzed the Security Services were broken into the service areas identified below:

Assessment of Antivirus & SPAM Control Preliminary Recommendations

- **Jointly Agreed Direction:** The Department of State and USAID have agreed to:
 - o Increase collaboration on all Antivirus and SPAM Control activities
 - o Consolidate product and technology identification, acquisition and implementation applicable to both parties
- **Assessment of Alignment Level:**
 - o We are at a **current alignment level of zero (0): No-Communication.**
 - o We should at the bare **minimum be at alignment level of three (3): Coordination.**
 - o We recommend that State and USAID work towards a **maximum alignment level of four (4): Collaboration.**

Assessment of Firewall and Patch Management Services

Joint Firewall Services Alignment Recommendation

- **Jointly Agreed Direction:** The Department of State and USAID have agreed to:
 - o Mature and cooperate on the exchange of information regarding firewall activities.
 - o Coordinate on all Firewall activities that are applicable to both parties.
- **Assessment of Alignment Level:**
 - o We are at a current **alignment level of zero (0): No-Communication**
 - o We should at the bare **minimum be at an alignment level of two (2): Cooperation.** We recommend that State and USAID work toward a **maximum alignment level of four (4): Collaboration.**

Patch Management Services Alignment Recommendation

- **Jointly Agreed Direction:** The Department of State and USAID have agreed to:
 - Share information regarding patches.
 - Coordinate identification and implementation of Patches and patch requirements within both parties' operational environments.
- **Assessment of Alignment Level:**
 - We are at a **current alignment level of one (1): Communication.**
 - We should at the bare **minimum be at alignment level of two (2): Cooperation.**
 - We recommend that State and USAID work towards a **maximum alignment level of three (3): Coordination.**

Assessment of Identification & Authentication, Biometrics, Encryption, and Digital Signatures

- **Jointly Agreed Direction:** The Department of State and USAID have agreed to:
 - Cooperate on the implementation of Homeland Security Presidential Directive - 12 (HSPD-12).
 - Collaborate to officially establish a "Federated Identity System" that meets HSPD-12 and FIPS-201 requirements for both parties.
 - Collaborate on encryption systems support
- **Assessment of Alignment Level:**
 - We are at a **current alignment level of zero (0), No-Communications.**
 - We should be at the bare **minimum alignment level of two (2): Cooperation.**
 - We recommend that State and USAID work towards a **maximum alignment level of four (4): Collaboration.**

Assessment of Intrusion Detection and Prevention

- **Jointly Agreed Direction:** The Department of State and USAID have agreed to:
 - Mature and collaborate on all intrusion detection and prevention activities.
 - Incident handling and reporting.

- o Consolidate and standardize product and technology identification, acquisition and implementation, and monitoring and reporting of the Intrusion Detection and Prevention area.
- **Assessment of Alignment Level:**
 - o We are at a **current alignment level of zero (0): No-Communication.**
 - o We should be at a **minimum alignment level of three (3): Coordination.**
 - o We recommend that State and USAID work towards a **maximum alignment level of five (5): Co-Alignment.**

Assessment of Security Reporting

This area addresses a process to collect, record, analyze, and evaluate relevant security information, in order to inform managers and executives about the organization's security risks, position, and compliance (i.e., FISMA reporting, POA&Ms, performance metrics, and incident reporting).

- **Jointly Agreed Direction:** The Department of State and USAID have agreed to:
 - o Mature current processes and coordinate on all Security Reporting activities.
 - o Standardize data, terms, and definitions to facilitate analysis.
 - o Co-Align Security Reporting activities that are applicable to both agencies.
- **Assessment of Alignment Level:**
 - o We are at a **current alignment level of zero (0): No-Communication.**
 - o We should be at a bare **minimum alignment level of three (3): Coordination.**
 - o We recommend that State and USAID work towards a **maximum alignment level of five (5): Co-Alignment.**

Assessment of Security Technology Development

This area addresses a process to seek out, control, integrate and evaluate risk of both current and new security technology solutions into an organization's information security program.

- **Jointly Agreed Direction**
 - o Consolidate on Security Technology Development activities that are applicable to both parties.
 - o Share research information on all standard activities to facilitate communications on emerging topics of interest and encourage joint analysis on common interests.

- **Assessment of Alignment Level:**
 - We are at a **current alignment level of zero (0): No Communication.**
 - We recommend that State and USAID work towards a **maximum alignment level of five (5): Co-Alignment.**

Assessment of Security Management Plan

This area addresses a process to develop, document, and implement an agency-wide information security program to provide security, based on risk analysis for the information and information systems that support the operations and the assets of the agency.

- **Jointly Agreed Direction:** The Department of State and USAID have agreed to:
 - Increase coordination on the direction and vision Security Management Plan.
 - Collaborate on Security Management areas that cross Department and USAID Strategies and Operational boundaries.
- **Assessment of Alignment Level:**
 - We are at a **current alignment level of zero (0): No Communication.**
 - We should be at a **minimum alignment level of three (3): Coordination.**
 - We recommend that State and USAID work towards a **maximum alignment level of four (4): Collaboration.**

Summary of Alignment for Information Security Services

A summary of the current and target alignment levels for the information security processes is presented in the following table:

Joint Enterprise Architecture Segment	Associated Service	Current Alignment Level	Minimum Target Alignment Level	Maximum Target Alignment Level
Information Security	Information Security Policy	0, No Communication	2, Cooperation	4, Collaboration
Information Security	Information Security Training	0, No Communication	4, Collaboration	5, Co-Alignment
Information Security	Certification and Accreditation	1, Communication	4, Collaboration	5, Co-Alignment
Information Security	COOP	0, No Communication	3, Coordination	4, Collaboration
Information Security	Antivirus & SPAM Control	0, No Communication	3, Coordination	4, Collaboration
Information Security	Firewalls	0, No Communication	2, Cooperation	4, Collaboration
Information Security	Patch Management	1, Communication	2, Cooperation	3, Coordination
Information Security	Identification & Authentication, Biometrics, Encryption, Digital Signatures	0, No Communication	2, Cooperation	4, Collaboration
Information Security	Intrusion Detection and Prevention	0, No Communication	3, Coordination	5, Co-Alignment
Information Security	Security Reporting	0, No Communication	3, Coordination	5, Co-Alignment
Information Security	Security Technology Development	0, No Communication	NA	5, Co-Alignment
Information Security	Security Management Plan	0, No Communication	3, Coordination	5, Co-Alignment

The next phase of the Joint Information Security Architecture effort will analyze the following service areas:

- Privacy
- Risk Management

- Vulnerability Scanning

In addition, the integrated To-Be architectures, gap analysis, and migration plans will be developed to support all of the information security areas.

4.6: Conclusion

In this chapter we examined a wide range of information, data, and documentation to determine how the two agencies working together envisioned their current and desired alignments along a range of business functions, processes, and programs. We conclude this chapter by discussing, at a high level, the steps needed to move from one level of alignment to the next higher level—from communication to cooperation, from cooperation to coordination, from coordination to collaboration, and from collaboration to co-alignment. The following table offers a useful heuristic for any function-, program-, or process-owner interested in advancing joint goals and objectives for working together at any level.

It is worth noting that overall, the research and analysis of the documentation that went into this chapter left us with a strong sense that the impulse to work together, to a level that made sense for both agencies, was strong across a range of activities and functions.

This concluding table provides a resource describing actions required to advance alignment goals to next levels.

Table: Moving Between Alignment Levels

Move FROM Alignment Level	Up TO Alignment Level	Required Actions
0, No communication	1, Communication	<ol style="list-style-type: none"> 1. Initiate and sustain regular communication of information pertaining to issues, opportunities, or status regarding common activities, utilization of resources, expected results, or anticipated benefits
1, Communication	2, Cooperation	<ol style="list-style-type: none"> 1. All actions cited above 2. Initiate, develop, and maintain an up-to-date shared strategy regarding common activities, utilization of resources, expected results, and anticipated benefits 3. Ensure current shared strategy maintains consistency with newest over-arching strategic plan
2, Cooperation	3, Coordination	<ol style="list-style-type: none"> 1. All actions cited above 2. Identify common activities 3. Determine scope of effort and amount of sharing to be achieved among common activities within scope 4. Identify and define the operating models, systems, and processes currently employed by each organization/ organizational unit 5. Identify and specify the policy, methods, techniques, tools and standards currently employed by each organization/organizational unit for each common operating model, system, and process 6. Determine whether the replacement of multiple, similar processes for a single process that meets the requirements of both organizations can be achieved 7. Analyze and redesign the common processes by eliminating redundancies and inconsistencies, and identifying and filling in gaps 8. Assign roles and responsibilities to each task within each process to a single organizational unit of either, but not both organizations 9. Ensure the “pass-offs” between these roles and responsibilities are smooth and do not cause bottlenecks or unnecessary wait-times 10. Review current policy, methods, techniques, tools and standards to identify and eliminate redundancies and inconsistencies, and identify and fill gaps with regard to the newly redesigned process(es) 11. For each re-designed process, verify: a) any proposed capabilities and technologies are congruent and complimentary with the standardized and shared policy, methods, standards, techniques, and tools employed within the process, system, or operational area; b) the performance of any existing process is not impacted by and does not need to be modified to accommodate the introduction of proposed capabilities and technologies (unless that process is already being re-designed); and c) the introduction and use of existing and proposed technology between existing and newly-redesigned processes, systems, and operations is smooth in

Move FROM Alignment Level	Up TO Alignment Level	Required Actions
		<p>transition and consistent in performance.</p> <ol style="list-style-type: none"> 12. Develop Communications Plan to relay these proposed changes to affected stakeholders. Communication is the key to managing people and helping them cope with change. It is essential to encourage participation and cooperation, and built trust. It is essential to convey the vision of what needs to be done, how it will be done, and what we/you are going to do. Stress the need and plan for moving forward; not looking back. Communication is also about listening, facilitating an exchange of ideas and understanding of the need for change; conveying the proposed changes and the schedule for their achievement/attainment; demonstrate respect and empathy for individuals and the changes they will be required to make; and plan for facilitating negotiating differences and resolving conflicts and outstanding issues. 13. Implement changes and verify: a) changes have synchronized the common activities of the affected organizations/ organizational units; b) the entire end-to-end process, system, or operation still works; c) the desired results are being achieved 14. If problems are identified during verification of changes: a) document the problem; b) identify the appropriate resolution; c) design an appropriate fix or “work-around”; d) develop or acquire the fix or work-around, if necessary; e) implement and test it; f) verify the problem is resolved and the desired results are being achieved. Repeat this step until all problems are fixed and desired results are achieved 15. Monitor progress, measure performance, and verify results are as expected and anticipated benefits are being satisfied 16. Make changes or Take action to ensure bring performance in line with results 17. Maintain an up-to-date synchronized set of common activities
3, Coordination	4, Collaboration	<ol style="list-style-type: none"> 1. All actions cited for Communication and Cooperation above 2. Identify activities where collaboration on the development of products or the delivery of services is desired 3. Determine scope of effort and the type and amount of collaboration to be achieved within the scope 4. Perform steps 4 thru 7 cited in Coordination above and return to step 5 below 5. Assign roles and responsibilities to each task within each process to include members from both organizations/ organizational units who are to work together 6. Ensure the geographic locations for the individuals involved in the collaborative processes are outfitted with the appropriate collaborative tools. Select collaborative techniques and tools based on whether anticipated collaboration is going to: a) same place (i.e., geographic location), same time; b) same place, different time; c) different place, same time; or d) any place, any time 7. Ensure the “pass-offs” between these roles and

Move FROM Alignment Level	Up TO Alignment Level	Required Actions
		<p>responsibilities are smooth, and do not cause bottlenecks or unnecessary wait-times</p> <ol style="list-style-type: none"> 8. Review current policy, methods, techniques, tools, and standards to identify and eliminate redundancies and inconsistencies, and identify and fill gaps with regard to the newly re-designed process(es). Be sure to share any “lessons learned” and “best practices” identified and incorporate these into the policy, methods, techniques, tools and standards where feasible and practical 9. Determine availability and review existing use of resources (human, information, physical assets, and funds) 10. Identify those resources that are needed for and appropriate to the newly re-designed process(es) 11. Identify excess resources and any deficiencies in currently available resources 12. Identify competencies (i.e., knowledge, skills, abilities, education, and expertise) needed for each role and responsibility that is not filled in newly re-designed process 13. Identify and retrain “excess” human resources to fill deficient competencies, where feasible and practical 14. Find new assignments for human resources that are not to be employed in new process 15. Identify and dispose of resources where excess exists 16. Identify and acquire those resources that are missing 17. For each re-designed process, verify: a) any proposed capabilities and technologies (including collaborative ones) are congruent and complementary with the standardized and shared policy, methods, standards, techniques, and tools employed within the collaborative process, system or operational area; b) the performance of any existing process is not impacted by and does not need to be modified to accommodate the introduction of proposed capabilities and technologies (unless the process is already being re-designed); and c) the introduction and use of existing and proposed technology between existing and newly designed collaborative processes, systems, and operations is: 1) smooth in transition; 2) consistent in performance; and 3) enables the desired type and amount of collaboration desired 18. Perform step 12 cited in Coordination above and return to Step 19 below 19. Implement changes and verify: a) changes have synchronized the common activities of the affected organizations/ organizational units; b) the entire end-to-end process, system, or operation still works; c) the desired type and amount of collaboration is being achieved; d) the desired results are being achieved 20. Repeat steps 14 thru 16 cited in Coordination above 21. Continuously maintain this up-to-date set of collaborative activities
4, Collaboration	5, Co-Alignment	<ol style="list-style-type: none"> 1. All actions cited for Communication and Cooperation above 2. Identify activities to be consolidated into a single, end-to-

Move FROM Alignment Level	Up TO Alignment Level	Required Actions
		<p>end process for the collaborative development of products or the delivery of services desired</p> <ol style="list-style-type: none"> 3. Determine scope of effort and the type and amount of co-alignment to be achieved within the scope 4. Perform steps 4 thru 7 cited in Coordination above and return to step 5 below 5. Assign roles and responsibilities to each task within each process to include members from both organizations/ organizational units who are to work together 6. Ensure the geographic locations for the individuals involved in all consolidated processes are outfitted with the appropriate collaborative tools. Select collaborative techniques and tools based on whether anticipated collaboration is going to: a) same place (i.e., geographic location), same time; b) same place, different time; c) different place, same time; or d) any place, any time 7. Ensure the “pass-offs” between these roles and responsibilities are smooth, and do not cause bottlenecks or unnecessary wait-times 8. Review current policy, methods, techniques, tools, and standards to identify and eliminate redundancies and inconsistencies, and identify and fill gaps with regard to the newly re-designed and consolidated process(es). Be sure to share any “lessons learned” and “best practices” identified and incorporate these into the policy, methods, techniques, tools and standards where feasible and practical 9. Determine availability and review existing use of resources (human, information, physical assets, and funds) 10. Identify those resources that are needed for and appropriate to the newly re-designed and consolidated process(es) 11. Identify excess resources and any deficiencies in currently available resources 12. Identify competencies (i.e., knowledge, skills, abilities, education, and expertise) needed for each role and responsibility that is not filled in newly re-designed consolidated process 13. Identify and retrain “excess” human resources to fill deficient competencies, where feasible and practical 14. Find new assignments for human resources that are not to be employed in new process 15. Identify and dispose of resources where excess exists 16. Identify and acquire those resources that are missing 17. For each re-designed process, verify: a) any proposed capabilities and technologies (including collaborative ones) are congruent and complementary with the standardized and shared policy, methods, standards, techniques, and tools employed within the consolidated process, system or operational area; b) the performance of any existing process is not impacted by and does not need to be modified to accommodate the introduction of proposed capabilities and technologies (unless the process is already being re-designed); and c) the

Move FROM Alignment Level	Up TO Alignment Level	Required Actions
		<p>introduction and use of existing and proposed technology between existing and newly designed consolidated processes, systems, and operations is: 1) smooth in transition; 2) consistent in performance; and 3) enables the desired type and amount of collaboration and co-alignment desired</p> <p>18. Perform step 12 cited in Coordination above and return to Step 19 below</p> <p>19. Implement changes and verify: a) changes have synchronized the common activities of the affected organizations/ organizational units; b) the entire end-to-end, single consolidated process, system, or operation works properly; c) the desired type and amount of collaboration and co-alignment is being achieved; d) the desired results' anticipated benefits are being achieved</p> <p>20. Repeat steps 14 thru 16 cited in Coordination above</p> <p>21. Continuously maintain this up-to-date set of collaborative and consolidated activities</p>

Chapter 5:

IT Investments & Services in the E-Government Paradigm

Expanding E-Government throughout the Enterprise

The previous chapter addressed the objective of eliminating redundant State/USAID functional capabilities and providing a more cost-effective and flexible use of available resources within the resultant infrastructure. This same goal is extended here to include the agencies' participation in the move towards government-wide consolidation of common services.

Expanded electronic government (E-Gov), one of five government-wide initiatives from the President's Management Agenda (PMA), calls for inter-agency collaboration in delivering information and services for the realization of a citizen-centered, results-oriented, and market-based federal government.

E-Gov makes us aware of the need to collaborate at all levels to ensure that we are making the best use of federal IT dollars. Greater sharing and collaboration generally promotes efficiency and cost savings throughout all levels of the enterprise. OMB encourages sharing the burden of IT investments at the lowest cross-bureau levels all the way up through shared E-Gov Initiatives and Line of Business (LoB) Architectures.

Both State and USAID have made steady progress in participating in and contributing to the first phase of the E-Gov initiatives called Quicksilver. Most of the phase one initiatives are currently at the operational status and phase two of the E-Gov initiatives is about to begin. Centered on lines of business that are common to many federal agencies, the second phase initiatives are geared toward consolidating and sharing common services government-wide by unifying systems and simplifying processes.

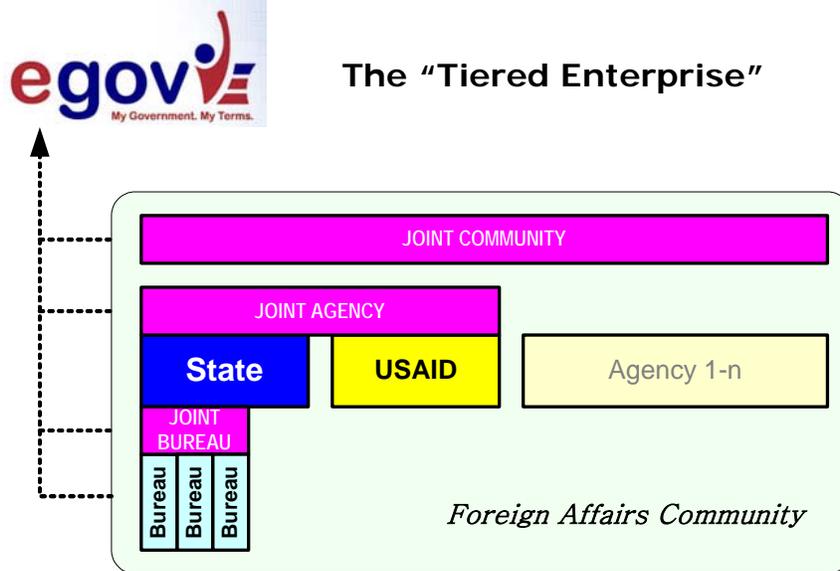


Figure 5.1: The Tiered Enterprise

The diagram above illustrates how State and USAID fit into the “Tiered Enterprise.” E-Gov initiatives offer the potential for collaboration and possible functional consolidation across the federal government, and should be leveraged at appropriate levels. The message is clear: integrate IT investments wherever possible.

This chapter, following the direction established by OMB and other federal guidelines, examines the impact of the E-Gov–driven investment paradigm on State’s and USAID’s IT initiatives and services.

- **Section 5.1, Analyzing the Current Environment**, presents the status of State’s and USAID’s IT investment from several different views: the BRM-based Projects and Applications, the E-Gov initiatives, and the Joint EA version 2 Transition Plan.
- **Section 5.2, Practicing Zero Redundancy**, presents an architecture-driven IT planning effort that is paving the path for integrated and efficient IT investment and services environment in the Department of State. This effort showcases the use of the Enterprise Architecture and the FEA Reference Models to identify and unify duplicate applications and services.
- **Section 5.3, Promoting Enterprise Services**, presents the service-oriented enterprise application architecture that facilitates information sharing and an integrated IT service environment.
- **Section 5.4, Opportunities For Change: Transition Planning**, presents a summary of enterprise services including those needed to support the Information Security and Telecommunications architectures, and strategic, policy, and technical recommendations to migrate to the target enterprise architecture.

5.1: Analyzing the Current Environment

This section first reviews the OMB Federal Enterprise Architecture’s (FEA) Business Reference Model (BRM) to determine where State and USAID fit into the government’s view of the federal enterprise. Subsequent sub-sections then examine the supporting IT investments with

both a project and applications/systems perspective, and analyze the impact of FEA guidance, the impact of E-Government, and the impact of State/USAID Joint Enterprise Architecture.

These topics are presented under the sub-section headings:

- Joint State-USAID Business Reference Model Structure and Overview
- Joint Business Reference Model vs. Projects & Applications
- FY06 Exhibit 300 Major Projects
- E-Government Implementation
- Joint EA Transition Plan vs. FY06 IT Investments

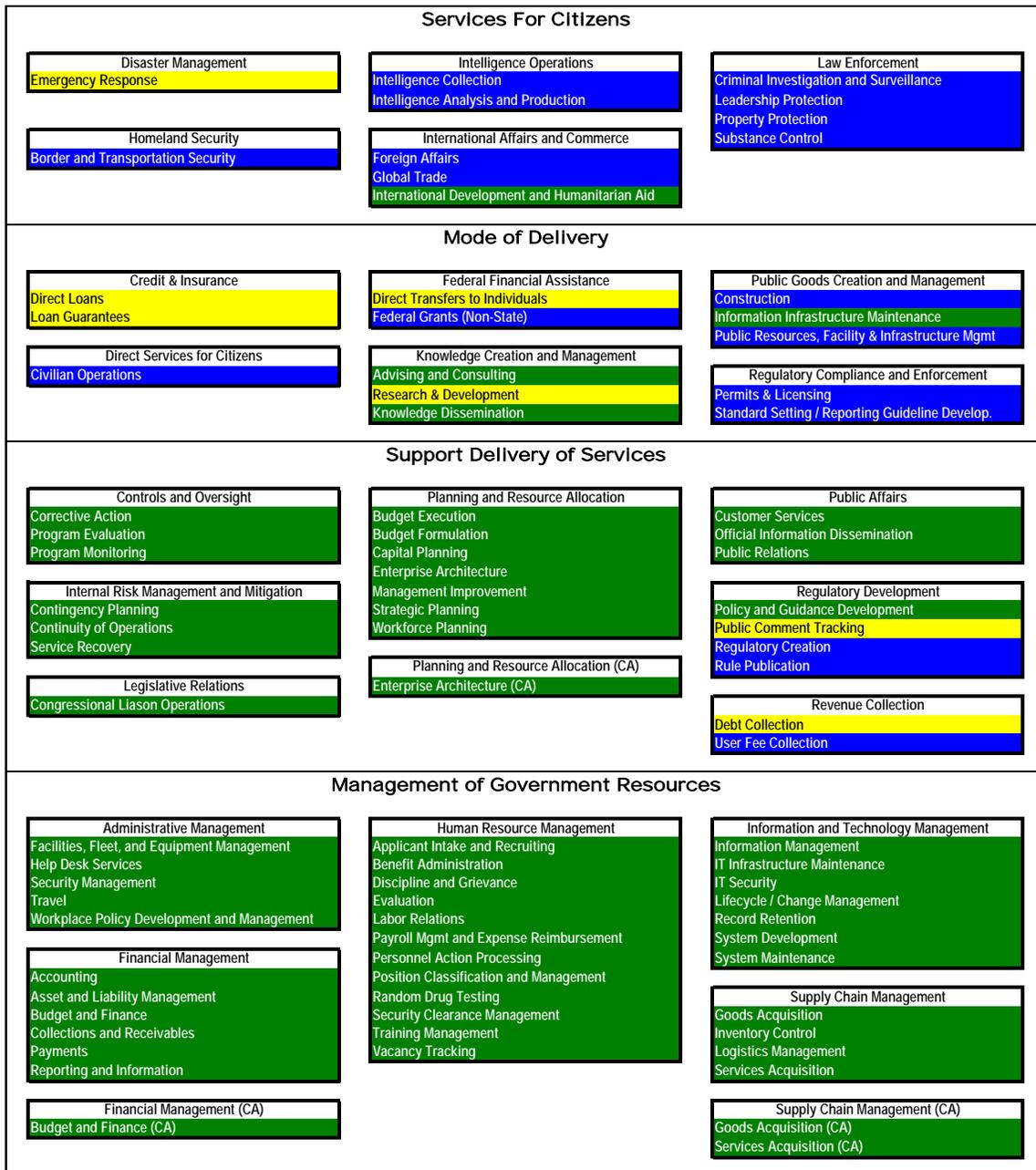
Joint State-USAID Business Reference Model Structure and Overview

The agency-specific Joint State-USAID Business Reference Model (BRM) is displayed below. To arrive at this model we examined all 51 Lines of Business (LoB) and 243 Subfunctions defined at the federal level. Using the Joint State-USAID Strategic Plan and the JEA v2 Joint Business Architecture, we identified those LoBs and Subfunctions that align with State's and USAID's business processes. These results have been validated by State's Management Policy (M/P) office. The joint agency BRM shows where State and USAID business functions relate and to provide opportunities for co-alignment across the full federal enterprise.

The Joint State-USAID Business Reference Model's structure follows the OMB tiered Business Areas populated with Lines of Business that are "mission" focused appearing in the upper layers. The bottom tiers contain LoBs supporting the delivery of mission services and providing management of government resources. Subfunctions are color-coded within their lines of business – State specific in blue, USAID specific in yellow. All other subfunctions shown in green are required by both agencies to fulfill their respective missions.

Applied Joint Enterprise Architecture
Department of State and U.S. Agency for International Development

Joint State-USAID Business Reference Model



Last Revision: January 21, 2005

- = State Only
- = USAID Only
- = Joint State-USAID

5.2: Joint State-USAID Business Reference Model

Joint Business Reference Model vs. Projects and Applications

As an extension of the Joint State-USAID BRM above, the Business Area/LoB structure was utilized to examine the connection between IT investments and their associated applications and systems. Totals for four key groupings are shown below:

Attribute	State	USAID
Major Projects (Exhibit 300s)	29	13
Non-major Projects	113	0
Major Applications/Systems	160	10
Non-major Applications/Systems	307	15

An expanded view of the individual LoB distributions appear in the Joint State-USAID BRM versus Projects and Applications Chart on the following page.

Joint State-USAID BRM -- Projects & Applications

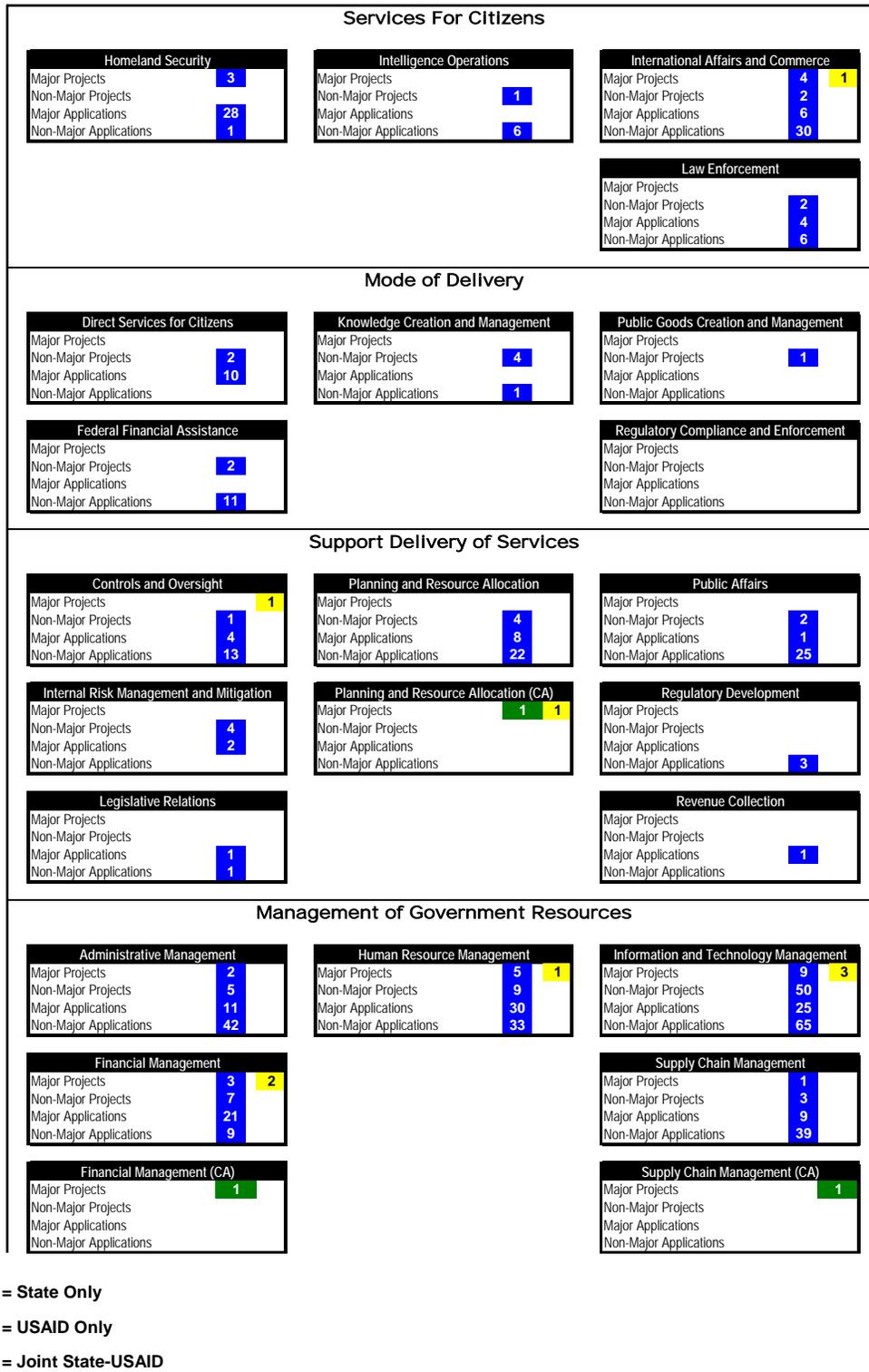


Figure 5.3: Joint State-USAID projects and Applications

Using this chart the following observations can be made:

- State and USAID “mission” LoBs have IT support in the following areas:
 - **Direct Services for Citizens** - primarily along the Civilian Operations subfunction involving investments sponsored by Consular Affairs (CA)
 - **Federal Financial Assistance** - along the Federal Grants (Non-State) subfunction with investments sponsored by Educational & Cultural Affairs and International Information Programs (ECA-IIP), as well as Overseas Schools Grants Programs (A)
 - **Homeland Security** - primarily along the Border & Transportation Security subfunction involving investments sponsored by Consular Affairs (CA)
 - **Intelligence Operations** - along the Intelligence Collection and Intelligence Analysis & Production subfunctions, investments are sponsored by Intelligence & Research (INR)
 - **International Affairs & Commerce** - across the broad Foreign Affairs subfunction and International Development & Humanitarian Aid, investments are sponsored by International Information Programs (IIP), Arms Control & International Security Affairs (T family), Information Resource Management (IRM), and USAID
 - **Law Enforcement** - involves investments sponsored by Diplomatic Security (DS)
- There is significant IT support for non-mission LoBs along all of the back-office functions within the Management of Government Resources Business Area. By fostering consolidation of back-office systems both internally within State and USAID, and by leveraging E-Government initiatives, costly duplications and stovepipes can be avoided.

Specific to the Foreign Affairs community is the recent examination of post/mission regionalization and rightsizing. Under the Model for Overseas Management Support (MOMS), posts/missions are to perform non-location-specific management and other functions regionally or centrally. As a result, the physical implementation of IT support for posts/missions will change significantly across the following key areas.

According to the “Changing the Paradigm for Overseas Management Support,” May, 2004:

- “Systems infrastructure must be vastly improved.”
- “Telecommunications must be made more reliable.”
- “Interagency connectivity must improve communication and collaboration with key customers.”
- “Web-based applications must be utilized to enhance collaboration and help divorce function from location.”

In summary, the MOMS’ focus on optimizing the overseas back-office capability supports the need to raise the level of collaboration and consolidation across Lines of Business with “green” subfunctions.

FY06 Exhibit 300 Major Projects

The enterprise architecture is realized through the funding, development, and deployment of IT investments through the Capital Planning and Investment Control (CPIC) process. The FY06 Exhibit 300 Major Projects are displayed on the following pages, organized by BRM LoB and Subfunction. Department of State projects are shown in blue, and USAID projects in yellow.

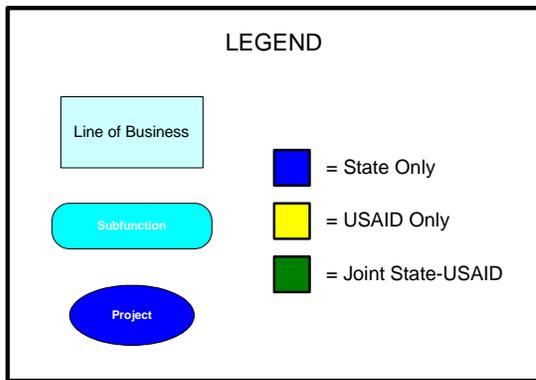
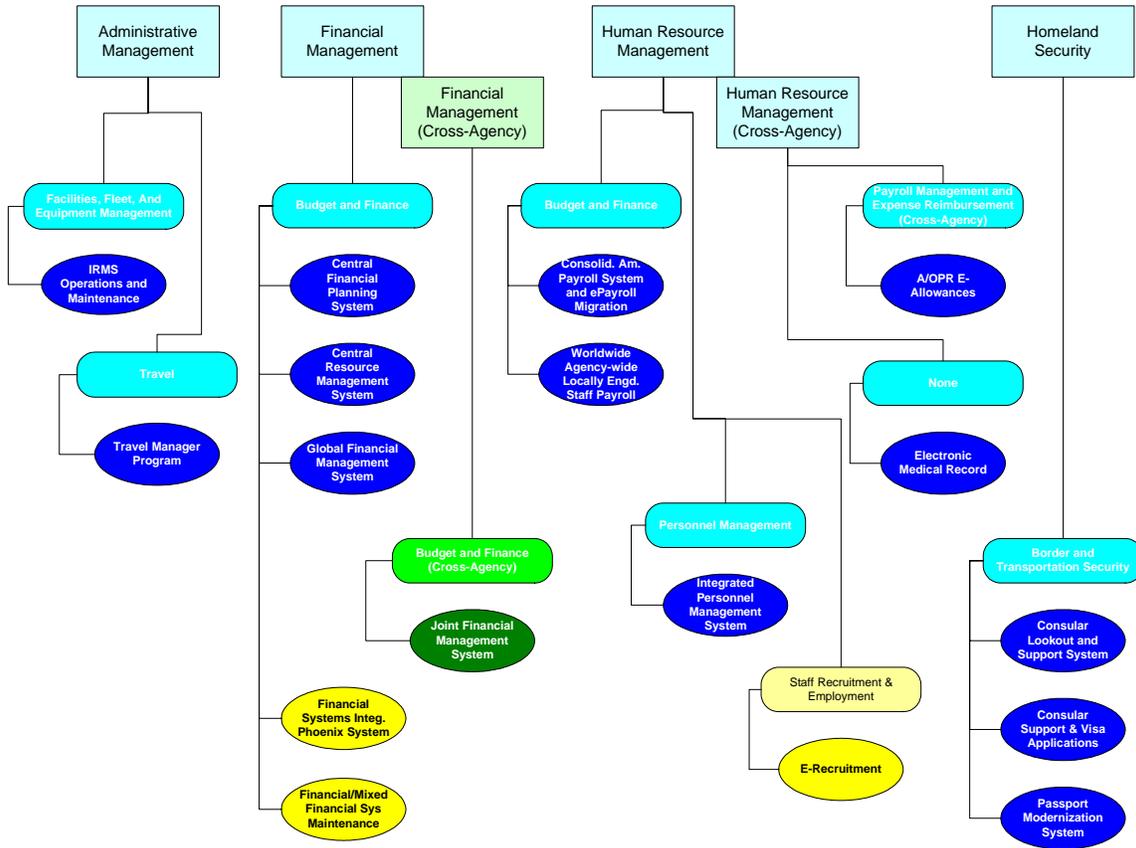
Among forty major projects at State and USAID, Joint State-USAID projects are limited to the three shown in green.

- **Joint Financial Management System (JFMS)** – is a cooperative effort by State and USAID to improve service and save money through collaboration on financial systems

and functions. At issue was the pursuit of separate implementations of the same financial system software (AMS' Momentum) when a common financial management system would improve efficiency based on joint integration of systems, strategic planning and a joint reporting solution. The goal of the JFMS is to create a common financial platform for State and USAID to manage all domestic and overseas financial management activities starting in FY06. The JFMS investment combines the former Global Financial Management System (GFMS) of State and Phoenix investments of USAID onto one, common financial management platform located at the State Department Financial Services Center in Charleston, SC.

- **Joint Acquisitions and Asset Management System (JAAMS)** – is a shared software solution for the processing of acquisition and assistance instruments for the State and USAID. State and USAID will use a common platform to each separately build a comprehensive acquisition and assistance management system to support planning, collaboration, tracking, and administering acquisition and assistance awards. This will enable State and USAID to manage joint international economic development and foreign and humanitarian assistance programs. JAAMS will work in conjunction with the JFMS, also a cooperative effort by State and USAID created to manage all domestic and overseas financial management activities. JAAMS will ultimately consist of: State's Integrated Logistics Management System (ILMS), a selected grants alternative from State, and the procurement functions of USAID's Procurement Systems and Improvement Project (PSIP).
- **Joint Enterprise Architecture (JEA)** – is a collaborative effort to develop Joint State-USAID enterprise architectures.

FY06 Exhibit 300 Major Projects



5.4: FY06 Exhibit 300 Major Projects

FY06 Exhibit 300 Major Projects

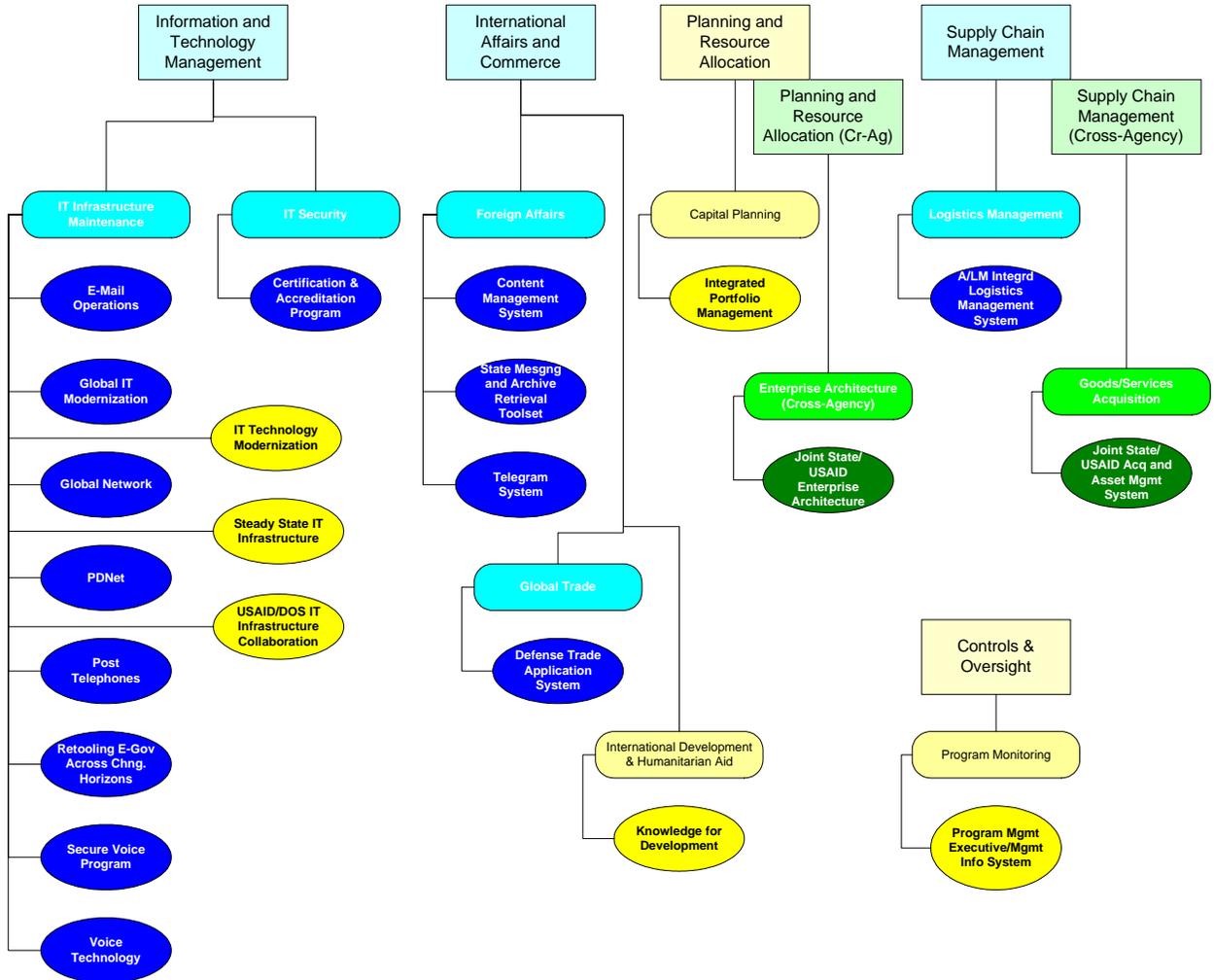


Figure 5.4: FY06 Exhibit 300 Major projects—Continued

E-Government Implementation

State's and USAID's IT investments are directly influenced by OMB's E-Government Initiatives including the 24 Quicksilver initiatives and the five LoB Architectures. Agencies are required to review all planned IT acquisitions for potential duplication with E-Gov initiatives.

Further, specific direction was provided in the FY06 OMB Passback as follows:

"Agencies should redirect FY 2005 development, modernization, and enhancement (DME) funds for the identified investments to support the definition of, implementation of, and/or migration to the common solutions defined by the e-Gov and LoB initiatives."

The table below highlights the current status of progress made by State and USAID in four categories of E-Gov Quicksilver initiatives.

<p>Government To Citizens (G2C) – The Department of State and USAID World Wide Web sites deliver basic information to citizens. Some passport forms are available for downloading, although they are not available for completion on-line.</p>
<p>Government To Government (G2G) – Several e-Government initiatives have enhanced interagency communications. For instance, e-Clearance uses a web portal for employees to enter clearance data. That information is then forwarded State and USAID for review, verification, and individual interviews prior to issuance of a clearance.</p>
<p>Government To Businesses (G2B) – The Integrated Acquisition Environment (IAE) e-Gov initiative provides a secure business environment for the Federal Enterprise and e-Rulemaking improves the rulemaking process for both citizens and businesses.</p>
<p>Internal Effectiveness & Efficiency (IEE) – The internal web sites provide more online access to critical information, ability to download forms, and conduct business electronically. For example, the Human Resources portal allows an employee access to data that was previously delivered via paper several months after the employee action (change of status, i.e. pay increase, award, change of station).</p>

The OMB LoB Architectures are intended to provide modern, cost-effective, standardized, and integrated IT solutions to support core business requirements across the federal government. For example, driven by an assessment that identified "overlap in agencies' plans for 70 human resources systems worth \$700 million," the Human Resources LoB was initiated. The HR LoB Services Delivery Model provides a common integrated HRMS solution delivering an initial set of core processing functions. These functions are enabled via integrated COTS packages, shared services, and six E-Gov initiatives. Agencies will support HR functions outside of the initial core set, but a constant assessment process will be utilized to migrate duplicative functions to the common solution.

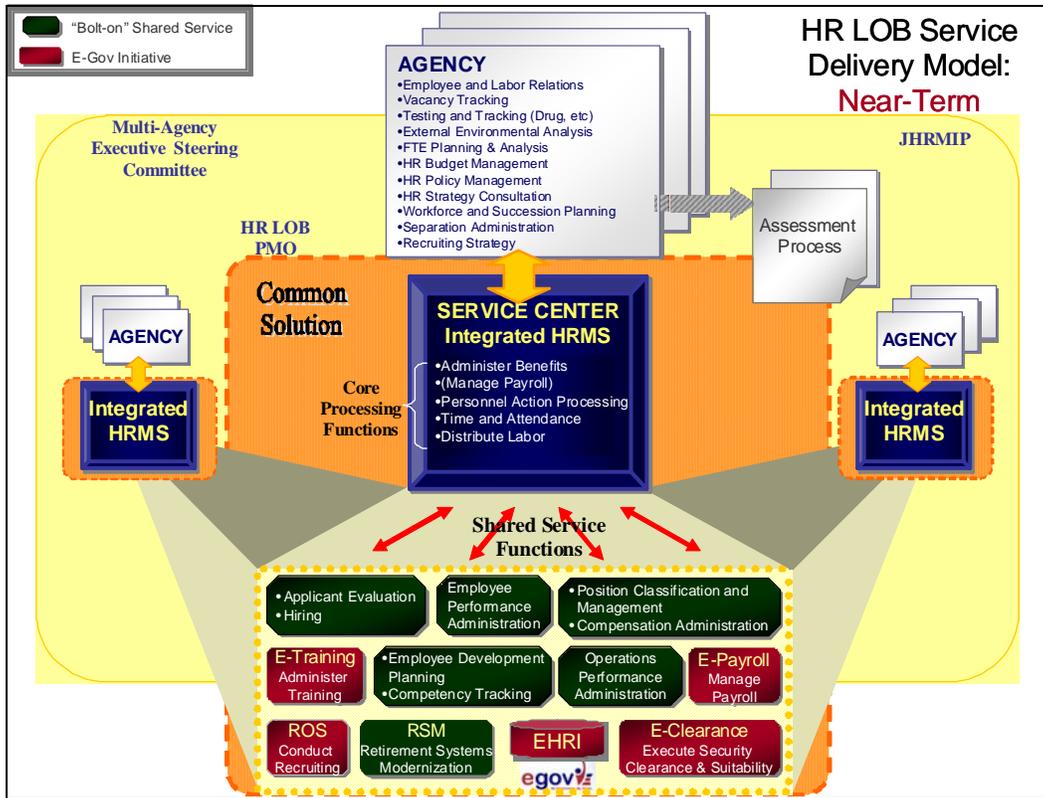


Figure 5.5: Human Resources LoB Services Delivery Model

The table below provides a description and participation summary by State and USAID in three LoB initiatives.

Initiative	Description	Participation
Human Resource Management Rep: HR/EX/SDD	Vision: A government-wide, modern, cost-effective, standardized, and integrated Human Resource Information System(s) (HRIS) to support the strategic management of human capital	Participating in Working Groups. State proposed as lead for Foreign Affairs community HR functionality.
Financial Management Rep: RM	Vision: A government-wide FM solution that is efficient and improves business performance while ensuring integrity in accountability, financial controls, and mission effectiveness.	Ensure JFMS is active in this initiative.
Grants Management Rep: A/OPE	Vision: A government-wide solution to support end-to-end grants management activities that promote citizen access, customer service, and agency financial and technical stewardship.	Ensure JAAMS is active in this initiative.

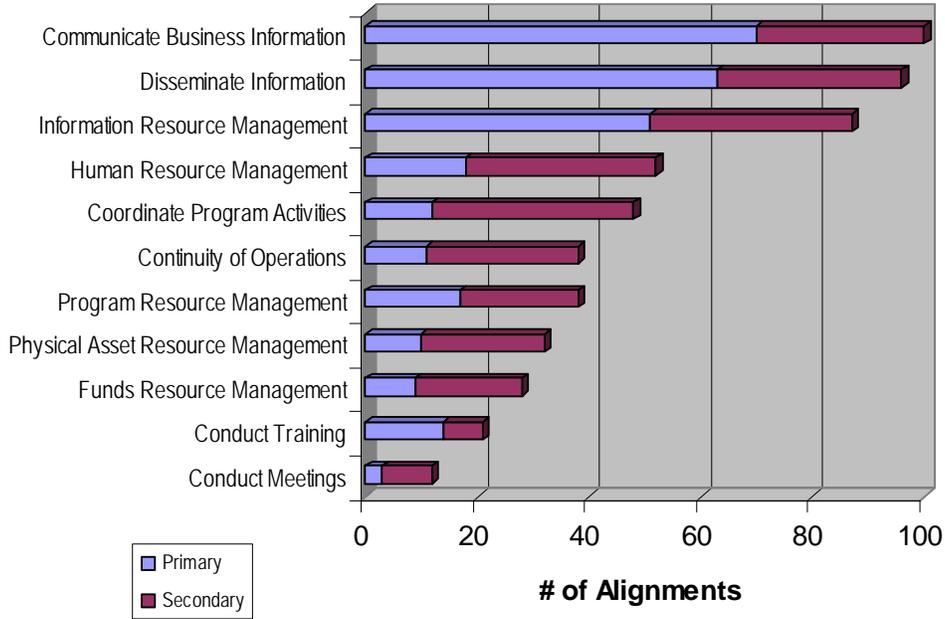
Again, when planning IT investments State and USAID must seek collaborative opportunities and integrate IT services at the highest levels possible specifically with E-Gov and LoB initiatives. Direction from a recent OMB memo states, “if a potential duplication is found, the agency CIO will contact the managing partner of the initiative and the OMB E-Government Administrator for a recommendation on whether the agency acquisition should proceed or be canceled by the agency and included in the E-Government initiative.”

Joint EA v2 Transition Plan vs. FY06 IT Investments

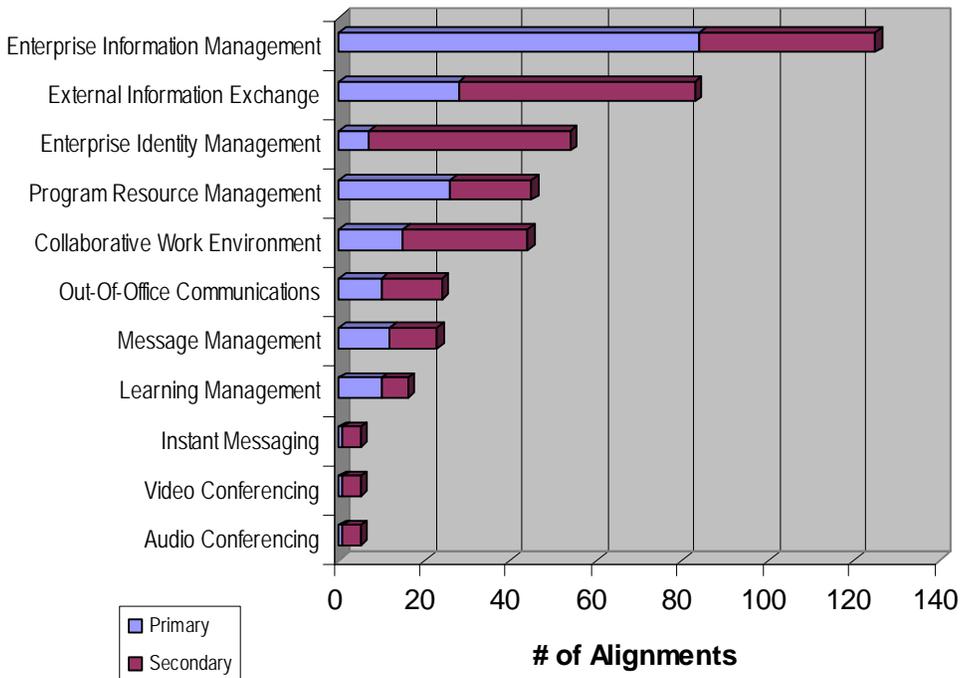
The Transition Plan in the JEA v2 provides the logical organization and sequence of actions to make a transition from the current EA state to a target EA environment. Proposed changes in the Transition Plan are structured around eleven business needs called “Supporting Business Functionality Statements,” which, if satisfied, will enhance how State and USAID achieve the joint strategic goals. For each Statement, the Transition Plan also identifies one or more supporting technical solutions that can be used alone or in combination to help satisfy, from an IT perspective, the stated business need. Details can be found in the JEA v2 Transition Plan document.

The charts below depict the primary and secondary alignments of Department of State FY06 projects to each of the eleven areas as well as the eleven technical solutions in the Transition Plan. The goal is to investigate the alignment of the Department's FY06 projects and recommendations made in the Joint EA v2 Transition Plan. Note that many of these non-major projects are related to more than one area or solution.

**Alignment of FY06 IT Investments to JEA v2 Transition Plan
 (Business Functionality Statements)**



**Alignment of FY06 IT Investments to JEA v2 Transition Plan
 (Technical Solutions)**



Using these charts the following observations can be made:

- In general, State FY06 projects reflect business needs and recommended solutions in the JEA v2 Transition Plan.
- The alignment is notable in three critical areas of business needs, “Communicate Business Information,” “Disseminate Information,” and “Information Resource Management.”
- Technical solution areas that show weakness include instant messaging, video conferencing, and audio conferencing.
- While more research is required, potential duplications may exist in several areas of technical solutions, which is the subject of the next section.

5.2: Practicing Zero Redundancy—Consolidation Through Duplication Identification

In the previous section, the current view of IT investment in State and USAID was discussed. In this section, we begin to move beyond an As-Is view to describe an enterprise-wide IT management initiative that addresses the identification and rationalization of redundancies and duplications.

Identifying redundancies highlights opportunities for partnering, joint development, and reuse, making more efficient use of available IT resources. Alignment to the FEA reference models promotes the identification of projects and applications to reveal commonalities, gaps, and opportunities for change. Towards this goal, building on the application of the FEA reference models, the Department of State initiated an examination of potential duplications.

The methodology employed was based on an OMB template that is intended to be used to identify duplications across the federal Enterprise and formulate enterprise-wide E-Government solutions (through the Quicksilver Initiatives). The analysis of the Enterprise Architecture and related databases of applications and projects helped to identify areas where staff and budget resources support business functions or technology solutions that are redundant. The findings and recommendations resulting from the analysis were delivered as a Duplications report.

The E-Gov Program Board endorsed the recommendations of the Duplications report, and Undersecretary for Management decided to convene Duplications Action Teams (DATs). The work performed by the DATs has demonstrated a valuable application of the EA and the FEA Reference Models to showcase optimization of IT investments in practice and to establish a foundation for the enterprise services model that will be examined further in Section 6.3.

DAT formation was authorized for the 13 areas identified as having the largest number of potential duplications and the greatest impact in the Department of State. These areas included a mix of BRM LoB areas and SRM Service Component areas:

Identified Areas of Potential Duplication	
1. Department Networks	8. Department Messaging and Knowledge Management
2. Human Resources Management	9. Directories
3. Supply Chain Management	10. Case/Issue Management
4. Physical Security & Surveillance	11. Grants Management
5. Assistance Request Services	12. Program Resource Management
6. General Tracking Databases	13. Border and Transportation Security / American Citizen Services
7. Facilities, Fleet, and Equipment Management	

Currently, teams for the first six of the 13 authorized duplication areas have been formed. The remaining teams will be formed as available bureau resources allow.

DAT progress to date is shown below:

Duplications Action Team (DAT) Progress		
DAT	Overview	Progress
Department Networks	Addresses the variety of legacy networks identified both domestically and overseas.	<ul style="list-style-type: none"> • Reviewed (10) networks – (9) found to be non-duplicative, (1) still under evaluation • Recommended improved process for centralized tracking of networks and periodic duplication assessment • Recommended creation of subgroup to examine Video Teleconferencing programs
Human Resource Management	Examines the Human Resource Management Line of Business as a whole addressing systems that support a number of business Subfunctions.	<ul style="list-style-type: none"> • Reviewed 70 unique applications • Phase 1 - “Low Hanging Fruit” – (4) applications identified as candidates for immediate consolidation or elimination • Phase 2 - “Partially Duplicative” – (1) application identified for integration • Phase 3 – “Mostly Duplicative” – (3) applications not applicable, (5) applications are under analysis for elimination or interface integration, (1) application has been identified as candidate for integration, (1) application was identified for consolidation – web development is complete, testing in progress
Supply Chain Management	Broadly addresses the ILMS initiative and all existing investments that would be superseded.	<ul style="list-style-type: none"> • Supply Chain Mgmt Systems (52) – Identified (14) systems for replacement by or migration to ILMS • Procurement Systems (18) - Removed (1) no longer in use, identified (2) systems that are candidates for replacement by ILMS Subgroup established (A, OBO, ECA, DS and OPE) to conduct a review of procurement systems, their core business requirements and gaps between these systems and enterprise-wide systems
Physical Security & Surveillance	Examines systems that support Criminal Investigation & Surveillance, and Security Management Subfunctions	<ul style="list-style-type: none"> • Reviewed 26 unique applications • Initiated two subgroups: Criminal Investigations & Physical Security • Identified migration path for Criminal Investigations applications into pre-existing consolidation effort • DS & OBO cross-bureau collaboration expected to lead to a proposal for multi-bureau integration for effort to improve collection and sharing of Physical Security information

Duplications Action Team (DAT) Progress		
DAT	Overview	Progress
Assistance Request Services	Addresses the Department's numerous bureaus and supporting systems providing Help Desk Services.	<ul style="list-style-type: none"> • Reviewed 12 unique applications and identified additional applications through working sessions • Remedy ARS was chosen as the single agency-wide solution. • Bureaus will submit individual requirements to LOB owner and customizations made at no charge • Business process is being examined to see where consolidation can be made at Tier-1 support level
General Tracking Databases	Examines the large number of department "trackers" that store information ranging from contacts to taskers.	<ul style="list-style-type: none"> • Reviewed 26 unique applications • Initiated Contact Management Subgroup focused on supporting the acquisition, management, and use of data about persons and organizations to fulfill mission objectives • Involves change in business process, not just technology • Critical overseas and domestically • Aligned with MOMS initiative - central or regional deployment • Recommendations for endorsement: <ul style="list-style-type: none"> o Designate a lead organization o Initiate a contact management project plan o Identify stakeholders – emphasize Posts

Since the March 2004 approval of the Duplications Initiative, the DATs have been an effective set of working groups, bringing together cross-bureau business communities and technical experts. The DAT efforts are viewed as positive enterprise Component Architecture efforts along the identified Lines of Business and Service Components. While initially the primary objective was to consolidate or eliminate duplicative systems, many DATs are also examining how business processes can be optimized through collaboration with other offices, bureaus, and agencies. This approach complements the traditional top down enterprise architecture methodology by performing a bottom-up analysis that can provide the catalyst to examine business processes that IT is automating. USAID is scheduled to begin participating in these efforts as they move forward.

5.3: Promoting Enterprise Services

In this section we define the Enterprise Services Model, a framework that logically places each piece of enabling IT functionality into a component-based view of the enterprise. The business

advantage promoted by this approach provides a better, faster, and cheaper way of integrating information, decisions, and actions. It also fosters elimination of redundant applications and prevention of duplicate IT investments across local organizations within the agencies. The Enterprise Services Model provides project managers with an enterprise component roadmap to build to. Through the use of this roadmap a set of supporting IT service components can be built, acquired, reused, or leveraged externally, and optimized at the enterprise level.

State and USAID need to embrace and implement an Enterprise Services view of IT investment that fully aligns with the E-Gov and FEA directions and support the IT strategic goal of anytime/anywhere computing. This goal will be supported through the use of a service-oriented, component-based approach that aims to improve the flexibility and the agility of IT services to proactively meet business challenges.

Enterprise Services; A Consolidation Framework

The *Service Component-Based Architectures Version 2.0*, developed by the Components Subcommittee of the Federal CIO Council Architecture and Infrastructure Committee, complements the FEA Service Component Reference Model (SRM) by discussing the concepts of component-based architectures, and the development and use of enterprise architecture, in a manner consistent with component sharing and reuse.

A *Component* is defined as “a self-contained business process or service with predetermined functionality that may be exposed through a business or technology interface.” It may involve a complete business line, such as the U.S. Treasury’s PAY.GOV, a business service supporting the validation of a Passport ID Number, an application to support Content Management, or a capability that may be accessed through a web interface. The effective identification, assembly, and usage of service components allows for aggregate business services to be shared across agencies and the federal government. Service component aggregation enables rapid building and implementation of components to support a given initiative or investment. These business services provide the functionality and execution of business processes, which in turn sustain the FEA Business Reference Model (BRM) subfunctions.

The JEA v2 introduced the Conceptual Model, a very high-level notional view of component services required to support State and USAID. The Conceptual Model has now evolved into an Enterprise Services Model based on the FEA Service Component Reference Model (SRM) and industry best practices for a services-oriented architecture. The Enterprise Services approach focuses on developing a component based IT strategy in which three classes of automation services exist.

These three classes include:

- Business Application Services – represent core functionality in the form of applications, systems, or components.
- Common Infrastructure Services – provide supporting functionality that business application area services use to implement their functionality.
- Enabling IT Services – are required for both the business application area services and the core infrastructure services for successful implementation and ongoing operation.

All services will be available throughout the enterprise and used as necessary to support business processes.

Services are related as follows:

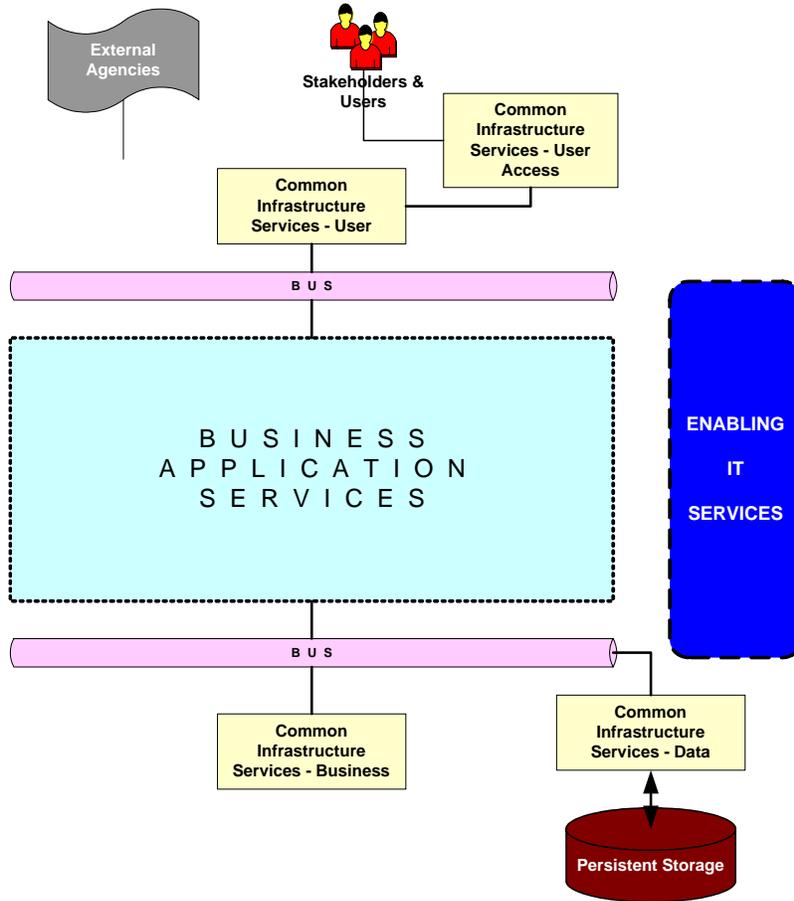


Figure 5.6: Simplified Enterprise Services Model

The other entities included in the above representation are:

- External Systems – represent the IT systems operated by partner agencies that exchange data with State and USAID to support business processes, including E-Government Quicksilver and Line of Business initiatives.

- Stakeholders and Users – include end State and USAID personnel, partner organizations, suppliers, and the general public.

The Enterprise Services Model is a core part of our joint To-Be architecture. The first step in its development is to consolidate the collection of services identified in the As-Is analysis and the To-Be envisioning. This consolidated list of services represents the automation support for the joint business/program areas. The Enterprise Services Model is based upon a To-Be Service Component Reference Model (SRM) that was developed by including service components mapped to existing applications, those required for JEA v2 Transition Plan solutions, those identified through the Information Security and Telecommunications architecture efforts, and those specified as needed by FY06 Major Projects.

Current Programs Supporting Enterprise Services Implementation

State Department is currently managing two major IT programs, Retooling E-Government Across Changing Horizons (REACH) and the State Messaging and Archive Retrieval Toolset (SMART), that address several areas of enterprise services defined in the enterprise services framework. These programs are discussed below, followed by a series of recommendations for their further unification with other existing programs.

Retooling E-Government Across Changing Horizons

The REACH program focuses on creating and maintaining reusable, integrated software tools and services available to end users that facilitate speedier, less costly creation of secure, enterprise-scale solutions supporting intra-and inter-agency information sharing and collaboration. These solutions will provide flexible, secure, transparent, real-time, online connections between existing internal and external data silos, applications and host platforms.

REACH supports three major forms of connectivity:

- **People-to-people** - email, online chatting and other forms of unstructured information sharing.
- **People-to-computer** - data entry or web browsing where you communicate with a server to perform a function.
- **Computer-to-computer** - servers talking directly to each other to link related information so that people see complete information. An example might be linking non-immigrant visa data with FBI fingerprint data and watch lists, so that a Consular Officer, FBI investigator or INS officer would see a more complete picture of an individual.

REACH components are wrapped in an integrated directory and security services, that allow collaboration, communication and information sharing anywhere, anytime in less time and at less cost. The REACH program is comprised of four inter-related components:

Directory and Security Services

- Post Administrative Software Suite
- Enterprise Application Integration
- Data Management



REACH has the potential to provide needed enterprise services to enable transactional messaging between applications, a global directory with integrated authentication/authorization, and workflow, portal, and search functionality. These reusable shared services can be constructed using off-the-shelf middleware and tailored as required throughout the intranet and extranet environments.

Recommendations:

- A process is needed to coordinate the customization, testing, and deployment of services that leverage the REACH infrastructure.
- REACH will need to coordinate with the SMART program to ensure maximum leverage of shared components and limited overlap of services
- REACH will need to integrate with the e-Authentication E-Gov initiative.

State Messaging and Archive Retrieval Toolset

The SMART program involves the reengineering, consolidation, centralization, and modernization of messaging processes and systems. SMART offers management, archival, and retrieval of information contained in the more than 72 million messages that are sent each year through various diplomatic channels. SMART consists of the following core functions:

- Message creation, exchange, and management via Outlook 2003 desktop client, and Outlook Web Access (OWA) for users accessing from remote locations
- Document management and workflow to manage the Foreign Affairs work products of the Department

- Search and retrieval of all messages, including an automated search capability that notifies users when content has been added that meets an interest profile
- Document archival consistent with National Archive and Records Administration (NARA) standards and association of each record with a disposition schedule
- Directory management of Department and applicable Foreign Affairs community users, services, and organizations to enable efficient and secure communication. SMART's advanced tagging and profiling functionality is designed to allow access to documents previously unavailable to most employees. E-Documents are delivered to addressed recipients within the boundaries of Role Based Access Control (RBAC) enforced caption and security restrictions.

The SMART project is a vital and fundamental building block of the overarching e-Diplomacy strategy, which includes effective knowledge management and inter-agency information sharing and collaboration.

The Vision is straightforward and unambiguous:

- The technology must satisfy three standards: smart, simple, and secure.
- Mobile connectivity for every contingency.
- Full access to all information required for the effective conduct of diplomacy.

The current solution consists of a non-integrated set of systems for producing, exchanging, archiving, and retrieving its most critical information. The existing Command Control messaging system (telegraphic or cable system) remains the most important of these systems, despite the fact that, in recent years, electronic mail usage has increased dramatically. The current cable environment is based largely on custom-developed systems, which are difficult and expensive to support and maintain and at high risk of failure, especially given the global reach of operations. The Joint State/USAID Strategic Plan identifies modernization of this system as one of its key goals.

SMART is also driven by the need to:

- Deliver an essential component of the e-Diplomacy strategy
- Develop a modern replacement for the current messaging systems that meet Critical Infrastructure Protection (CIP) requirements and provides for reliable, secure, and flexible exchange and retrieval of records and information
- Address "need to know" issues while improving access to Foreign Policy information throughout the Foreign Affairs Community
- Adopt a modern, user-friendly solution that meets functionality requirements defined by users
- Provide system-wide information access in near real time
- Improve information security, integrity, and privacy through the use of an e-Document wrapper which contains metadata about every e-Document in SMART
- Comply with records and classification management guidelines
- Manage e-Documents consistent with National Archive and Records Administration (NARA) standards and associate each record with a disposition schedule.



Recommendations:

- SMART will need to coordinate with the REACH program to ensure maximum leverage of shared components and limited overlap of services
- SMART will need to integrate with the e-Authentication E-Gov initiative.

5.4: Opportunities For Change

The Joint EA transition strategy influences the CPIC process through the provision of an enterprise services framework and the development of candidate projects. These projects relate to conceptual new or modified IT investments and move State and USAID in the direction of enterprise services jointness at all levels. This section also includes recommended services identified through the Information Security & Telecommunications architecture efforts. The detailed To-Be Enterprise Services Model is shown below.

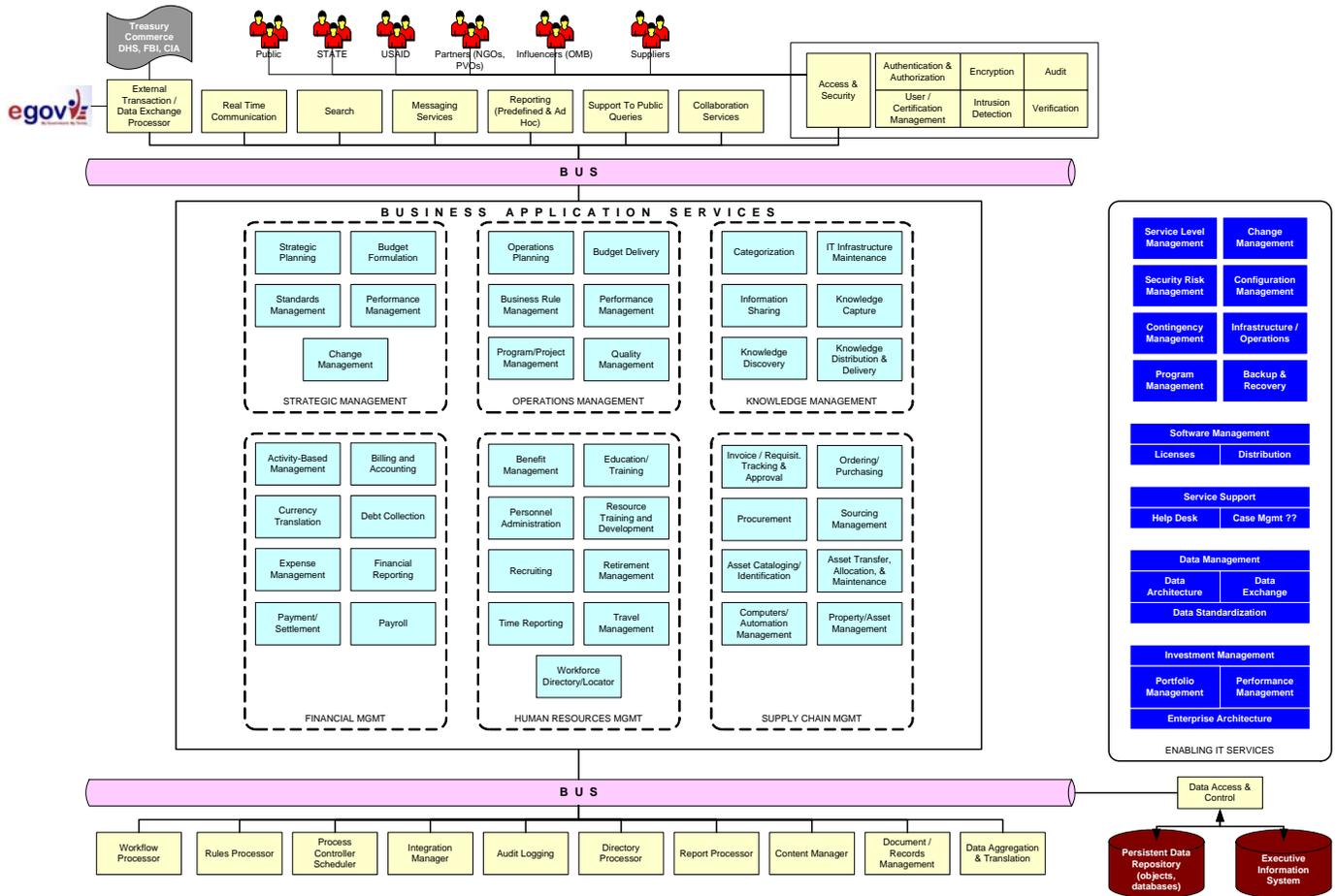


Figure 5.7: Detailed To-Be Enterprise Services Model

Business Application Services (light blue) - represent core functionality in the form of applications, systems, or components with most existing solutions deployed as custom development efforts or by using customized COTS/GOTS packages. The To-Be Enterprise Services Model sees these stovepiped solutions migrating to higher “tiers” – joint State-USAID components while also looking to leverage E-Government Initiatives and LoB Architectures wherever possible.

Common Infrastructure Services (yellow) - provide core functionality that business application area services use to implement their higher level functionality. For instance, the strategic planning business application service can be implemented using the workflow processor service, the rules processor service and the document/records management service. The workflow processor service would step the strategic plan through the various workflow steps for developing the strategic plan. The rules processor service would be used by the strategic planning service to validate that the strategic plan contained the proper types of information, and that the plan meets the criteria for being a strategic plan. The document/records management service would support in editing and tracking changes to the document, and in performing configuration management and version control.

Enabling IT Services (dark blue) - are required for both the business application area services and the core infrastructure services for successful implementation and ongoing operation. For instance, configuration management is used to track and understand the current product suite that supports any IT capability. Thus, it supports the smooth operation of the workflow services, which in turn, supports the smooth operation of the budgeting system.

Given that most State & USAID applications are supported by localized services that are duplicated from system to system, or at a minimum from bureau to bureau, there are significant opportunities to consolidate along all of the above service types. Some examples include: Access & Security, Directory Services, Data Integration, and Report Processing.

Selected services are candidates to move from stovepiped services to shared/reusable common infrastructure services. Shared services can manifest themselves at the agency level, across an entire community of interest, or at the E- Government initiative level.

Services Identified Through Information Security & Telecommunications Analysis

As part of the 2004 Joint Enterprise Architecture effort, in depth analysis was performed in the areas of Information Security & Telecommunications. Enterprise services related to these two areas are included below and organized by BRM, and SRM (with extensions).

Information Security BRM Alignment	
BRM LoB:	Information and Technology Management
BRM Subfunctions:	Lifecycle/Change Management
	System Development
	System Maintenance
	IT Infrastructure Maintenance

Required Information Security Services

- **Policy Creation** – a process designed to create, update, approve, and disseminate security policies taking them through their entire life cycle, based on the evaluation of legislation, regulations, and the organization's business needs
- **Security Management Plan** – a process to develop, document, and implement an agency-wide information security program to provide security based on risk analysis for the information and information systems that support the operations and the assets of the agency.
- **Security Technology Development** – a process to seek out, control, integrate and evaluate risk of both current and new security technological solutions into an organization's information security program.
- **Security Services** – processes, to include appropriate policies, executed to maintain the integrity of the organization's information security layers (i.e. confidentiality, integrity, access control, non-repudiation, identification and authentication, audit, and system availability.) Processes should at a minimum address: Firewalls, Intrusion Detection and Prevention systems, Identification and Authentication systems, Encryption, Digital Signature, Antivirus, Email Filtering, Scanning, and SPAM control, Patch Management, Audit Trail Capture and Analysis.
- **Information Security Training** – a process created to inform and educate end users and IT professionals of the organization's security policies, individual security responsibilities, and provide users with the necessary knowledge to ensure the security of the organizations' information systems.
- **Continuity of Operations** – the execution of contingency plans for operations during crisis, unforeseen circumstances, or disruptions in normal day-to-day operations at both the system and enterprise level.
- **Certification and Accreditation** – a process by which agencies periodically: (i) assess the risk resulting from the operation of its systems; (ii) test and evaluate the security controls in those systems to determine control effectiveness and system vulnerabilities; and (iii) assess the information security programs supporting those systems (e.g., security awareness and training, incident response, and contingency planning).
- **Security Reporting** – a process to collect, record, analyze and evaluate relevant security information, in order to inform managers and executives about the organization's security risks, position and compliance. (i.e. FISMA reporting, POAMs, performance metrics, incident reporting.)
- **Privacy**- process by which the Privacy Act is supported within each organization.

Telecommunications BRM Alignment	
BRM LoB:	Information and Technology Management
BRM Subfunctions:	Lifecycle/Change Management
	System Development
	System Maintenance
	IT Infrastructure Maintenance

Required Telecommunication Services

- **Voice Communication** - the set of capabilities that support audio communications both secure and unsecured. Connection can be permanent, via cable, or temporary, through telephone or other communications links. (i.e. PBX)
- **Wireless Services** - the set of capabilities that provide for communications supported by the technologies that use transmission via the airwaves. (i.e. PDA, cellular, HF, LMR, SATCOM)
- **Data Network Services** – executes, maintains, and supports the devices, facilities and standards that provide the computing and networking within and between enterprises. (i.e., OpenNet, data networks, workstations, platforms, servers; OSI Layer 2 & 3)
- **Messaging & Email Services** – the set of capabilities that support keyboard conferencing and the electronic exchange of messages, record traffic, correspondence, documents, or other information over a network or the internet.
- **Video Teleconferencing Services** – the set of capabilities that support video and audio communications sessions, that may also include graphics and data exchange, among geographically dispersed users
- **Communications Support Services** –the life cycle of the physical communications infrastructure. (i.e. SONET rings, transmission systems, OSI Layer 1)

Recommendations: Transitioning to the Enterprise Services Framework

The Enterprise Services model and programs supporting the framework will help advance a service-oriented, flexible architecture. The following recommendations for actions toward the development of a framework are made based on the opportunities identified during the analysis of the current environment and the potential impact of adherence to the Enterprise Services Framework.

State and USAID's global operations require secure and modern information technology (IT) to ensure that information is collected, analyzed, communicated, presented, and retained efficiently and effectively. State and USAID have the ability to make great progress in IT coordination and integration, not simply because of shared goals, but because of shared global locations. State and USAID must be committed to implementing the requirements of the Federal E-Government Initiative under the PMA, ensuring broad internal use of Web-based technology and support for electronic interaction with citizens, other government agencies,

private businesses, and nongovernmental organizations (NGOs). Towards these goals, State and USAID should consider the following strategic recommendations.

Strategic Recommendation 1: Exploit recently established infrastructure.

State and USAID are strengthening administrative systems and pursuing collaborative solutions to enable web-based, centralized, and integrated IT systems. The agencies are basing activities on commercial best practices and standards in deploying and maintaining a centrally managed IT enterprise. A key goal is the merger of all Department “sensitive but unclassified” and unclassified networks into OpenNet Plus. State and USAID will expand OpenNet Plus and classified network infrastructures (ClassNet) to accommodate USAID’s distinct communications requirements. The agencies must continue improvements to joint IT enterprise to ensure adequate critical infrastructure protection. The agencies must focus on securing modern State and USAID office automation platforms and tools, global enterprise networks (unclassified and classified), access to information resident on external networks and the Internet, and collaboration with foreign affairs partners, the public, and business.

Strategic Recommendation 2: Coordinate IT planning and common use of architecture and infrastructure.

State and USAID must continue development of and implement a joint IT Strategic Plan to support common policy objectives. The Plan will outline joint IT priorities and analyze the feasibility and costs/benefits of integrating technical systems. State and USAID will continue to develop and implement a joint Enterprise Architecture to guide both organizations’ future IT investments. The agencies must work together to strengthen IT Capital Planning process and produce consolidated OMB business cases and Exhibit 300 submissions in order to enhance the ability to make joint decisions regarding IT priorities and investments. Finally, State and USAID must develop a joint security architecture with uniform surrounding processes.

Strategic Recommendation 3: Strengthen core information management systems and collaboration.

The agencies must implement one modern messaging system for State and USAID headquarters, posts, and missions worldwide. State and USAID also must strengthen each organization’s knowledge management systems and investigate the feasibility of common enterprise portal technology, and standard IT security solutions for both agencies. The agencies must strengthen each agency’s core business and administrative systems and pursue collaborative solutions to integrate IT systems in such areas as personnel, finance, budget, logistics, and real property to the maximum extent practical. State and USAID also must work collectively toward combining decentralized IT servers and related infrastructure into centralized server centers.

Strategic Recommendation 4: Consolidate technical and operational support.

State and USAID can achieve economies of scale for overseas IT support and network management through better coordination, streamlined management, and consolidation of

operations as appropriate. The agencies must work to increase efficiency and merge network operation centers, help desks, technology upgrades, IT training, technical support, software licensing, and related areas to the maximum extent possible, sensitive to the geographic separation and network capacity limitations facing the State and USAID facilities.

IT Governance & Policy Recommendation 1: Vet State and USAID initiatives with ongoing E-Government initiatives.

Continue to vet current initiatives to the E-Government framework. Vetting should apply to new initiatives, and utilize a component based, core infrastructure, and web-enabled services framework. Emphasis should be placed on the interoperability with State and USAID infrastructure.

IT Governance & Policy Recommendation 2: Develop, formalize, and enforce web-enabled services architecture standards.

Establish a taskforce of technical, systems, and Program operations experts to examine and implement common set of development standards to support web-enabled services architecture. Enforce formalized standards and stress a component-based infrastructure that allows code re-use and sharing of services.

IT Governance & Policy Recommendation 3: Take an evolutionary approach to developing core infrastructure services.

Develop the functionality of core services in an evolutionary, centrally controlled manner. Develop additional components for the core infrastructure services architecture as they are needed to address specific user needs.

Technology Recommendation 1: Develop web-enabled transactional environment.

Develop a delivery mechanism that supports web-enabled services that integrate existing applications within this web-enabled computing environment. This infrastructure should include existing application and new State and USAID systems. For example, a web portal (single integrated environment) might recognize users when they log-on and automatically provide access to authorized resources they require (personalization).

Technology Recommendation 2: Leverage appropriate existing systems.

Leverage current financial and technological investments within a web-services environment. Expose current functionality and systems (primarily in financial management and procurement areas) to web-enabled computing environment by building wrappers around existing applications. For example, users can access financial management and procurement web services from single integrated environment regardless of location.

Technology Recommendation 3: Develop a workflow enabled service for strategic planning and budgeting.

Develop a workflow enabled service to support strategic planning and budgeting within the strategic management business application area. In its' most general form, workflow technology can be used to support the automation of business processes. Benefits of the

service include efficiency through organization, scheduling, controlling, and monitoring processes.

Technology Recommendation 4: Develop a quick hit solution for an Executive Information System for program management information.

Develop a quick-hit Executive Information System that will integrate information system access within a web-enabled environment. Create a dashboard application tailored to meet executive's program management information needs. System functionality should include access to diverse data, drill-down capabilities, reporting, graphical presentation, and with an emphasis on ease of use (mouse-driven without assistance) and the development of a data mart that centralizes existing information.

Technology Recommendation 5: Integrate program management and technical knowledge sources within a single user environment.

Integrate current program management and technical knowledge sources within a portal. Leverage and aggregate existing program management "know how" from applicable sources. Provide access to program management information through web-enabled infrastructure.

Technology Recommendation 6: Develop knowledge management taxonomy to support the knowledge management strategy.

Develop a robust knowledge management taxonomy that integrates both program management and technical knowledge. Establish a taskforce to design knowledge management delivery mechanism utilizing a web-enabled environment. This effort should align with and leverage the current State and USAID knowledge management strategies/initiatives.

Technology Recommendation 7: Extend field support concept to include catalog management support and pre-procurement support.

Evaluate the current approach to the field support initiative and extend current functionality to include online catalog and pre-procurement capabilities.

Enterprise Architecture Governance

EA governance comprises the policies, processes and procedures, through which enterprise organizations articulate their interests, exercise their rights, meet their obligations, and mediate their differences. In this chapter we examine current independent governance standards at State and USAID and envision a possible future joint governance model for them. Effective and efficient EA governance ensures that: priorities are based on broad consensus across the two agencies; and also that EA compliance is participatory, transparent, and accountable, as shown below:

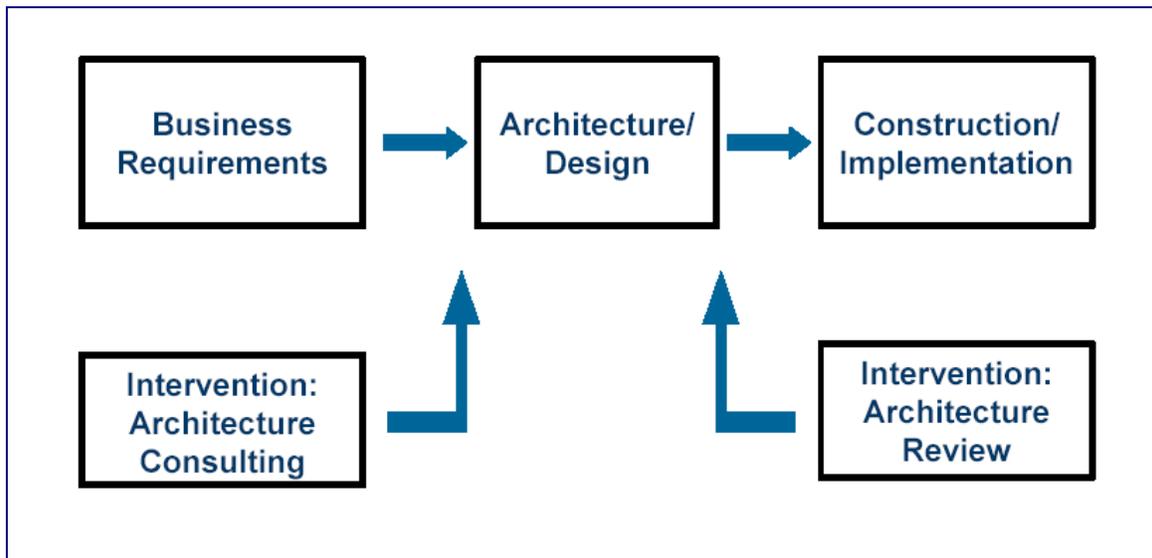


Figure 6.1: EA Governance Process Flow

A conceptual To-Be Joint EA Governance process for State and USAID is now under development. In the broadest sense, Joint EA governance should be seen both as the exercise of managerial authority to manage the development and implementation of both organizations' Joint EA, while providing direction and guidance that support their shared mission and business objectives.

An initial Joint EA governance strategy should provide the following:

- Direction, guidance, principles, and procedures that support Joint State/USAID mission and business objectives

- Joint EA alignment and support of the PMA, OMB guidance, E-Gov Program Board (E-GovPB) decisions, JMC initiatives, CPIC, and State/USAID Strategic and Joint IT Strategic Plans (ITSP)
- Clear policy and guidance for various Joint collaborative initiatives between USAID and State
- Leverage of existing IT management boards and resources by adjusting charters and procedures as necessary
- Alignment and coordination with both State and USAID capital planning schedules

6.1: As-Is Governance

At the Department of State, existing IT and EA governance structure consists of the following four main boards:

1. E-Gov Program Board
2. E-Gov Advisory Group
3. E-Gov Program Management Office (E-Gov PMO)
4. E-Gov Working Group

The E-Gov PMO provides the strategy and direction for the integration and approval for the CPIC and IT Strategic Planning processes as shown below:

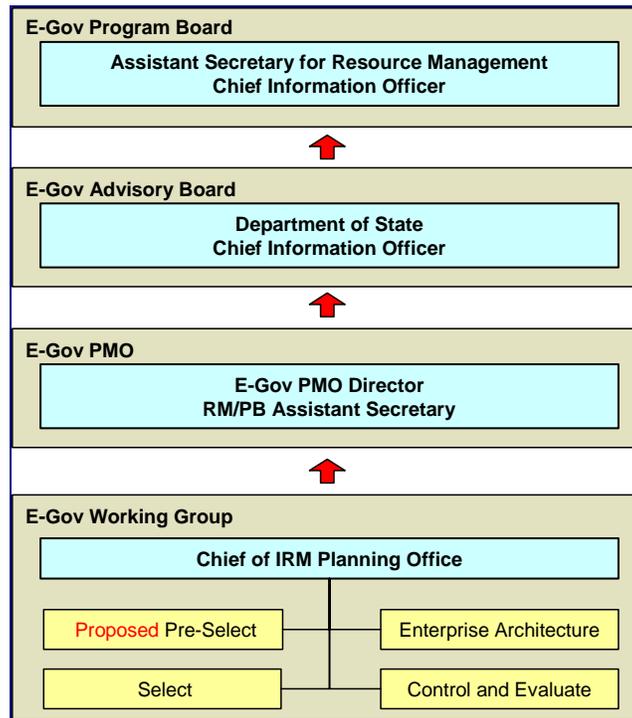


Figure 6.2: As-Is State EA/IT Governance

USAID is currently in the process of reorganizing its IT and EA governance to more accurately address organizational requirements. The reorganization will also facilitate integration of CPIC and EA processes. Prior to this initiative, EA governance and development was conducted through an EA sub-committee within the Business Transformation Executive Committee (BTEC). The EA subcommittee has since been dissolved.

The proposed new USAID IT and EA governance is similar to the four layered approach used at State. USAID is also proposing the creation of a Program Management Office (PMO), which would oversee the EA and parts of the CPIC process.

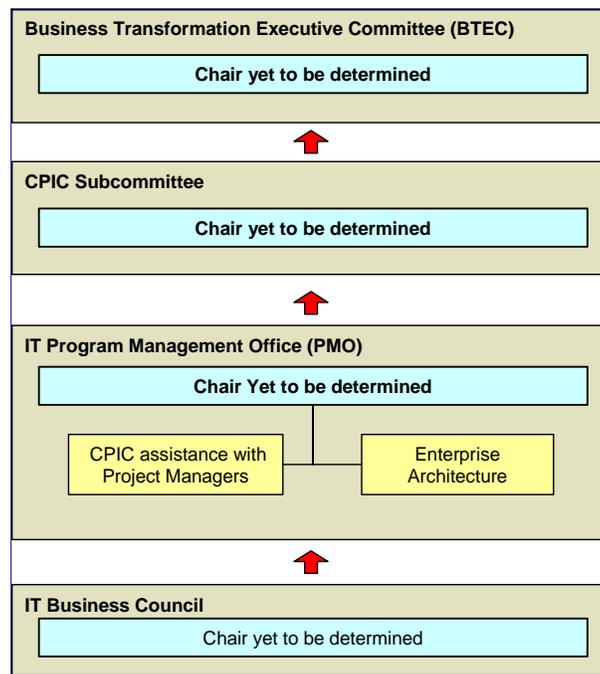


Figure 6.3: Proposed USAID EA/IT Governance

6.2: Proposed To-Be Joint EA Governance Model

Preliminary analysis suggests that creating an effective Joint EA Governance model would involve, at the minimum:

- Creating a Joint State/USAID Program Management Office (PMO)
- Creating a Joint State/USAID EA Working Group (EAWG)
- Modifying Existing Joint Policy Council (JPC) and Joint Management Council (JMC) Charters to expand their oversight of a proposed Joint PMO

The proposed Joint State/USAID PMO would be responsible for managing and coordinating all tasks related to joint State/USAID IT management, as shown below:

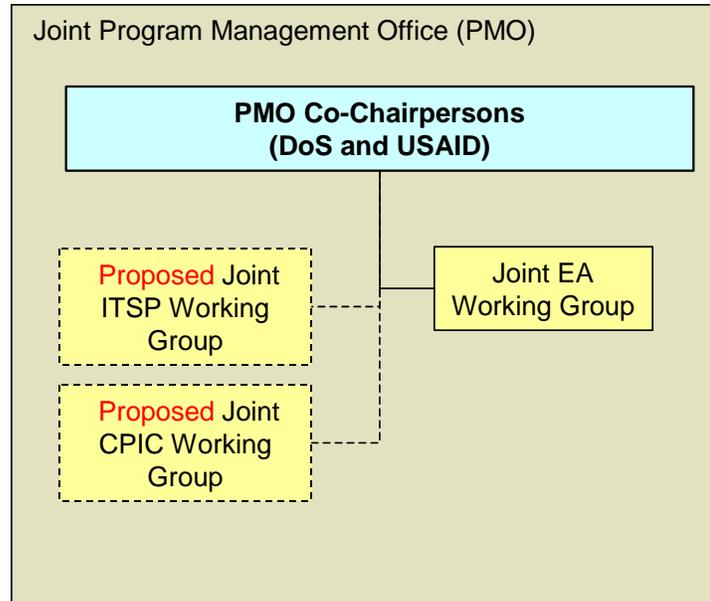


Figure 6.4: Proposed Joint State/ USAID Program Management Office (PMO)

The Joint PMO would also facilitate the integration of processes related to:

- Joint State/USAID Enterprise Architecture
- Joint State/USAID Capital Planning
- Joint State/USAID IT Strategic Plan
- Managing joint investments and initiatives

The Joint State/USAID PMO should be co-chaired by senior IT leadership within State and USAID, such as State/USAID's Chief Information Officers or chief architects and would be responsible for the overall success of Joint State/USAID IT collaboration. Membership on the Joint PMO would be equally distributed between State and USAID.

A Joint State/USAID EA Working Group would be responsible for managing and coordinating all tasks and tools related to joint State/USAID EA development. The Joint EAWG would be composed of sub-groups specialized in the following development areas:

- Business Process
- Data Needs
- Technology standards and infrastructure
- Applications and Service Components

Membership on the EA Working Group would be determined based on existing resources at both State and USAID.

The existing Joint Management Council charter would also be modified to include oversight of the Joint PMO.

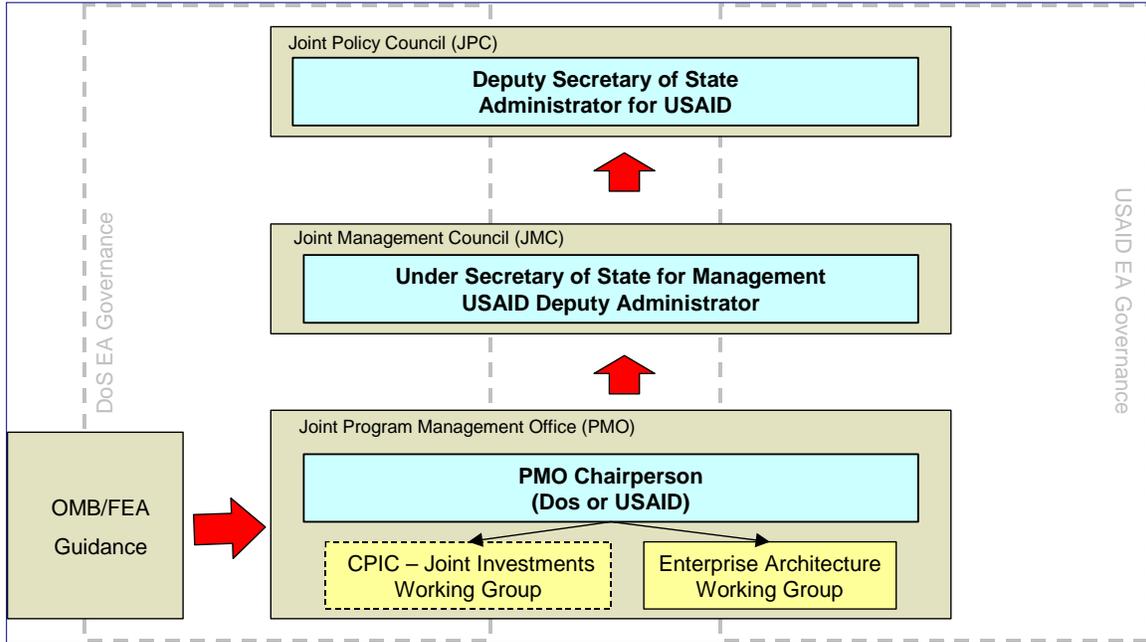


Figure 6.5: Proposed Joint State/USAID EA Governance Structure

The E-Government Working Group resides in the JMC and would review Joint PMO recommendations and actions to ensure alignment with:

- The Department of State and USAID Strategic Plan
- Presidential initiatives and National Security policy

The proposed recommendations will be honed and incorporated into a separate document that will be offered for review and comment by State and USAID staff. If these governance models can be made to work well, their operation will further empower their Joint EA as a proactive process. Architects can then work more effectively with their State/USAID business counterparts to design IT solutions that bring with them a thorough understanding of the business drivers and strategic goals of the two organizations.

Chapter 7: Transition Strategy and Next Steps

Knowing and assessing where we are will permit us to define what we need to do better. Once we know what changes and improvements we need to make, we can plan for tomorrow. The commitment to create a Joint EA, fully compliant with OMB's FEA Reference Models, and to implement it with a governance-driven transition strategy and plans, offers State and USAID an important opportunity to make significant and steady progress toward E-Government goals and objectives.

As stated in the Department of State and USAID Strategic Plan Fiscal Years 2004-2009:

We will seek opportunities to program our resources in complementary and targeted ways...our organizations will carry forward an agenda to implement new innovative strategies and eliminate redundancies, while ensuring that our diplomacy and development assistance produce results (p. 2)."

To conclude the Applied JEA, we present a Transition Strategy, based on the findings and analysis that created this document. The Transition Plan is an important tool and blueprint for guiding the two agencies from the As-Is of today to becoming more effective and efficient collaborative organizations in the years to come.

This chapter proposes a strategy to support the current Joint Policy Council (JPC) and Joint Management Council (JMC) alignment approach between foreign affairs policy and programs and to identify a transition approach to support senior management's direction. The Transition Strategy, along with the proposed To-Be Joint EA Governance Model in chapter 6, guides how the development of joint business requirements through selection and implementation of programs under an enterprise-wide portfolio management structure.

The Transition Strategy, illustrated in figure 7.1 below, proposes an approach for aligning State and USAID joint programs.

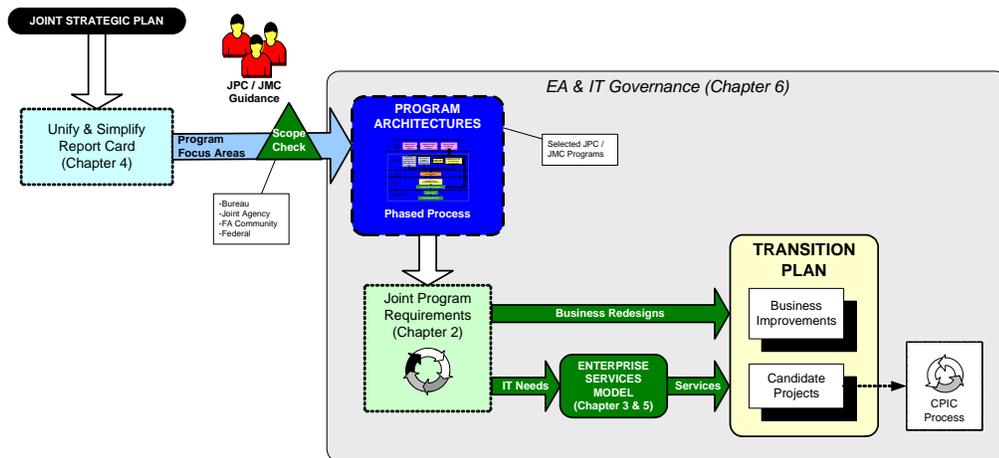


Figure 7.1 Proposed Transition Strategy Approach

This approach was utilized in the analysis of the alignment opportunities in the Joint Information Security and Joint Telecommunications Architectures described in chapter 4. It assesses programs to:

- Ensure they are properly aligned and achieve their target alignment level processes and technologies (chapter 4)
- Eliminate unnecessary redundancies in processes and technologies (chapters 4 & 5)
- Ensure consistency of processes and solutions (chapters 4 & 5)
- Fill in gaps in processes and technologies (chapter 3)
- Utilize the requisite resources fully and efficiently (chapter 3)
- Take best and appropriate advantage of the joint business requirements (chapter 2)

The strategy is realized through the selection of one or more programs or program categories (like those identified by the JPC/JMC working groups and their candidate target alignment levels shown in chapter 4). The Executive Committee, comprised of members from the JPC and JMC, selects programs based on business need and direction. Additional program selection criteria should be derived from the types of architectural improvements that may be expected.

The programs to be reviewed and improved will require the development of Joint Program Architectures. The Joint Enterprise Architecture Team defines a *joint program architecture* as an engineered and adequately supported set of program activities performed by State and USAID employees who must work collaboratively and in unison to execute the program.

The development of a Joint Program Architecture requires the capture of process models that identify "*Who does what and when*" with each program activity. These process models would document the current end-to-end process that a program (or set of related programs) needs to deliver the desired results.

These models would then be examined to identify both business and technical improvements to satisfy the objectives listed as bulleted items above and using the joint business requirements identified as a baseline in chapter 2. The improvements identified would be applied to the current defined processes to derive a vision of how a single, integrated, end-to-end target process should operate.

7.1: Guiding Transition Planning—Joint Program Architecture Development

As State and USAID work together more effectively, the inconsistencies in common or overlapping operations and systems must be resolved. This should include a review of current program strategies, policies, processes, procedures, techniques, standards, and tools to identify the exact nature of these barriers.

The Joint Program Architectures along the common Lines of Business (LoBs) for both agencies should be leveraged to identify priorities, performance gaps, and opportunities to strengthen cross-functional, cross-agency capabilities.

These initiatives should examine the operations and processes of joint program activities to define the work performed, information exchanged, products created and services delivered, technology employed, and desired results and anticipated benefits.

A four-phased approach, shown below, is used for the development of the Joint Program Architecture. Both State and USAID CIOs have approved this approach that was piloted for the Joint Information Security and Joint Telecommunications Architectures development.

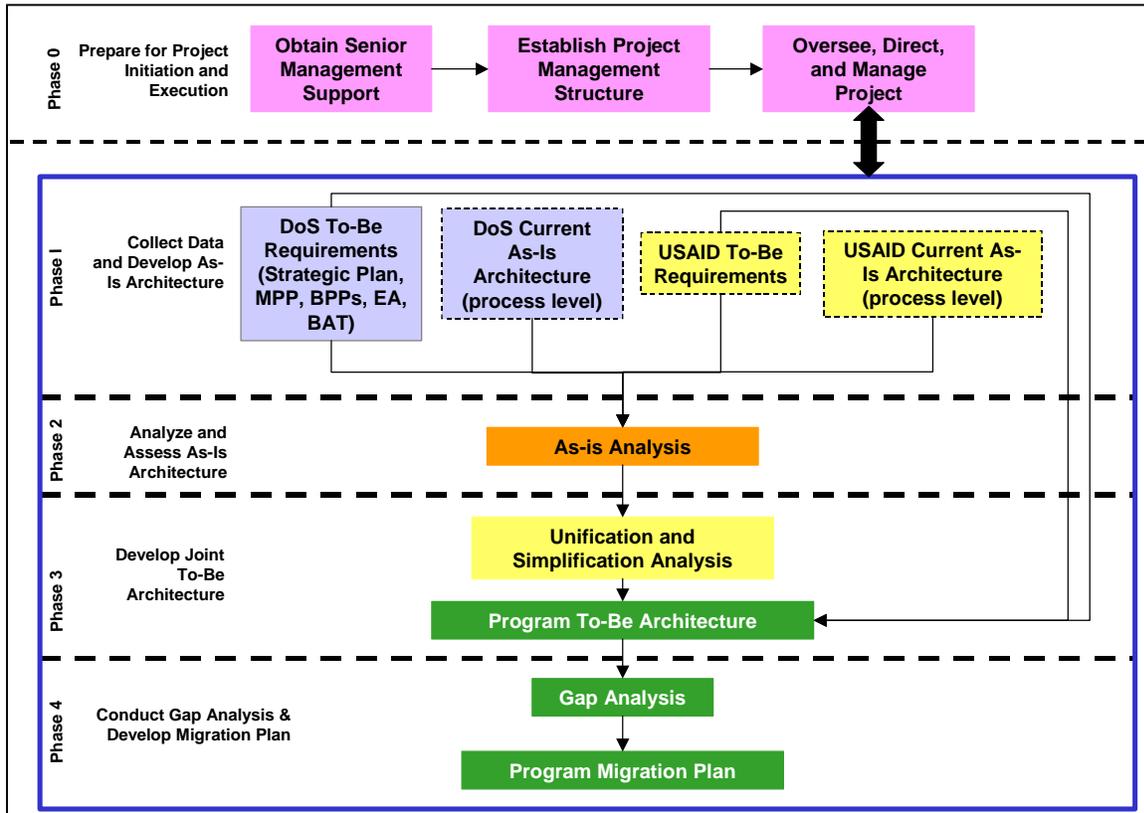


Figure 7.2 Joint Program Architecture Development Approach

A brief description of each phase follows:

1. **Phase 0, Prepare for Joint Project Initiation and Execution**, requires the development of a project plan and activities that allow management to monitor and correct the execution of the joint project to ensure the plan reflects the status of project execution. This plan defines the scope of the effort, as directed by senior management. In this phase, stakeholders are identified and kept informed of progress throughout the program architecture development process. These stakeholders are involved throughout the development of the architecture, where feasible and practical.
2. **Phase 1, Collect Data and Develop As-Is Program Architecture**, produces two As-Is process models of the current set of activities, one each for State and USAID. The effort starts with a senior management kickoff meeting, including the functional executives, to provide sponsorship for the effort, overarching direction such as the degree of expected alignment between the two organizations, and their business vision and expectations that will drive the description of the target or To-Be architectures. For each increment, data are collected on how both organizations perform designated program processes today.

3. **Phase 2, Analyze and Assess As-Is Program Architecture**, requires the examination of both State and USAID As-Is process models to ascertain which activities should be incorporated into the To-Be model. Phase 2 also requires this new, integrated process model to be evaluated for items that need improvement or elimination due to redundancy or those considered no longer relevant, and the identification of new requirements. This analysis includes a determination as to how each process meets the business requirements and management's vision and the identification of similarities, differences, and gaps. This is followed by an analysis of how these same processes could be integrated between the two organizations in accordance with senior management alignment direction.
4. **Phase 3, Develop Joint To-Be Program Architecture**, requires a description of the vision of future, joint operations and identifies the future business and technical requirements. Overlaps, differences and any conflicts are documented, as are areas where potential increases in efficiency and cost savings may be realized.
5. **Phase 4, Conduct Gap Analysis and Migration Plan**, programs and projects that implement the vision are identified based on the gap between the integrated As-Is and the To-Be architectures. A gap analysis between the As-Is of both organizations and the integrated To-Be architecture will reveal where changes need to occur. A migration plan, to be approved by both functional and senior management, will specify what improvements need to be implemented and when they should occur to gain the optimal resource efficiencies and provide the most benefit to these organizations as soon as possible and in accordance with management priorities. The Migration Plan describes the proper sequence of activities (and associated programs and projects) that have to be performed to ensure an effective and efficient implementation of the To-Be architectures; their compliance with management direction and organizational priorities; and the requisite joint business requirements.

Following the definition of a target program architecture, joint business and technical projects are identified.

A joint business improvement project may require:

- The redesign of an entire process (based on the delta between the current [As-Is] and target [To-Be] processes defined)
- The redesign of one or more tasks to accommodate the insertion of technology
- The inclusion of the activities of another federal agency. A joint technical project may require the physical realization of all or specific components of the Enterprise Services Model (chapter 5).

Potential IT Investment Projects

An examination of the joint State-USAID BRM, Lines of Business (LoBs) and Subfunctions suggests areas where projects & applications can be shared and reused. Specifically, there is significant IT investment in support of the lowest tier of the BRM - Management of Government Resources. These LoBs offer clear opportunities for consolidation of current and planned investments into joint projects. JFMS and JAAMS in the Financial Management and Supply Chain Management LoBs respectively are examples of existing joint projects. Administrative Management, Human Resource Management, Information and Technology Management LoBs should also be examined for opportunities for additional joint projects.

The Information Security and Telecommunications architecture efforts have also identified opportunities for Joint FY07 IT investments utilizing the FY06 Department of State IT projects as follows:

Potential Joint Information Security Projects

- AntiVirus Program
- Continuity of Operations (COOP) Planning
- Electronic Key Management System (EKMS)
- FEMA Federal Support Center
- Information Assurance Program
- Public Key Infrastructure and Biometrics Logical Access Development and Execution Program (PKI/BLADE)
- State Secure Infrastructure Management System (SSIMS)
- Biometrics Program

Potential Joint Telecommunications Projects

- Classified Connectivity Program (CCP)
- Domestic Refresh
- EACT-Webgram Contingency
- Global IT Modernization - PMA
- In-Line Network Encryption
- ONE (OpenNet Everywhere)
- PBX Security Enhancement Initiative
- Secure Dial-In
- SWEET (Secure Wireless Extended Enterprise Technology)
- Video Collaboration
- Program Management Executive/Management Information System

Also, the emerging requirements identified in Chapter Two (Emerging Joint Business Requirements) potentially align well with a USAID Knowledge Management FY06 IT investment. We recommend that it be considered for a Joint FY07 project:

- Knowledge for Development

In addition, USAID has FY05 IT investment funding to support the planning and engineering of potential convergence projects with the Department. Specifically, the proposed projects are:

- Support Joint Program Management/Governance Process
- Establish Joint Security Board
- AIDnet/OpenNet Integration Proof of Concept and Benefit Cost Analysis
- High Threat Posts Remote Network Administration Analysis
- Develop Joint Program Management Office White paper
- Assess SMART for USAID
- Joint Network Operations Center Pilot, Procedures, and Toolset
- Redesign AIDnet Firewall Architecture and Conduct Pilot
- Examine using WebPass to meet USAID requirements
- Develop Joint Cyber Security Vulnerability Scanning
- Develop Joint Security Awareness Training
- Develop Joint Certification and Accreditation Process
- Enhance USAID Portal on OpenNet
- Worldwide Remote Network Administration Analysis

The business and technical projects identified and determined necessary to realize a single, integrated, end-to-end target process are documented in a Transition Plan for the program or set of programs being examined. The EA Governance and Capital Planning and Investment Control (CPIC) process determine which of these projects are approved and funded. They also determine when they are executed.

7.2: Next Steps

The framework described in 7.1 above will identify, through the application of architectural principles, candidate programs for eliminating duplicates or functional or efficiency improvements. These programs will then be submitted to the organizational entity responsible for their development and maintenance. The responsible organizational unit will then validate or modify the program list created by the JEAT and determine the priority ordering for implementation and execution of the selected programs. The series of steps called for to support this process are performed within the shaded area in figure 7.1, labeled EA and IT governance.

The steps include:

- Review, and modify as required, the candidate program selection criteria. Efficiency gains or cost should be, where possible, quantified. Technical or processes that present a risk to the successful unification or simplification of programs should be surfaced. Risk factors considered should include economic, technical, or conflicting policy.
- Conduct a cost benefits analysis against the candidate programs to provide additional criteria required to establish a priority ordering. The cost benefits analysis should be conducted on multiple levels to allow a measured response to be made to urgent, immediate, short term needs as well as to longer term needs that may show greater eventual monetary return on investment.

- Make final selection of programs based on the additional criteria developed in the previous steps and assign a priority ordering for implementation of the selected programs. When necessary, bring attention to specific findings and recommendations that might influence the approach taken for implementation and execution of the programs.
- Assign responsibility for the implementation and execution of the selected programs.

Progress through the above steps will be overseen employing the governance structure defined earlier in chapter 6. The JEAT is available at any time during this process to provide clarification regarding information used as the basis for selection of the original candidate programs.

Attachment A: Concept of Operations

This attachment describes the Concept of Operations for the Department of State and the U.S. Agency for International Development (USAID). A Concept of Operations (CONOPS) is designed to give an overall picture of the end-to-end operational processes. At its most basic level, a CONOPS describes how work and information flows between the different units of an organization and, in some instances, its stakeholders.

The following narrative describes a normative model of how work and information currently flows between State and USAID Headquarters in Washington, DC (HQ) and their offices overseas – State’s Regional Service Centers, State’s Posts, and USAID’s missions. This CONOPS describes how State and USAID achieve their mission and satisfy their joint objectives and goals today.

This current definition will serve as the basis for the development of a visionary CONOPS that will, in turn, result in the creation of a process model. The process model will describe when and in what order State’s and USAID’s operation processes will be executed differently in the future, including the definition of inter-dependencies and concurrencies in their operations. It will also describe, in general terms, the types of work and information that need to be exchanged by State and USAID organizational units and their stakeholders; the nature of the changes that will be needed to be made to ensure that they work together collaboratively; and the types of technology and tools that they will need to employ within these processes to achieve their mission and meet their goals. This document initiates the movement towards the definition of this new visionary CONOPS.

The description that follows is presented from several different perspectives to more fully relate the complexity of the many different roles and responsibilities and operational processes undertaken by State and USAID. Five different perspectives are provided:

- Policy perspective
- Program and project management perspective
- Geographic perspective
- Coordination of activities perspective
- Resource management perspective

Policy Perspective

The Department of State was created and is responsible for the formulation and implementation of US foreign policy. State, USAID, and other USG agencies that carry out their mission overseas are responsible for the successful execution of their activities in compliance with US foreign policy. The processes associated with these responsibilities are briefly described below.

Formulates US Foreign Policy. This process consists of four major activities:

- Collects and Analyzes Information
- Develops US Foreign Policy Position
- Develops US Foreign Policy Recommendation
- Develops/Updates US Foreign Policy

This process is initiated with the need to develop or update US foreign policy for a specific subject area in response to the arrival of new legislation, mandates, or directives. In some instances, this process may be initiated with the recognition by Regional Bureau management or an Ambassador and his Host Country Team that policy needs to cover a new or different situation occurring overseas. Foreign Policy Officers and Analysts start by first collecting information from the appropriate Functional Advisors and Analysts at HQ and, if necessary, the Regional Bureau Advisors, Analysts, and Desk Officers and the applicable Host Country Ambassador(s) and directed members of the Country Team.

The team analyzes the collected information to derive a formal US policy position regarding the subject area. The team then presents their position to and obtains consensus from the State senior management (includes the affected Under Secretaries, affected Assistant Secretaries and Deputy Assistant Secretaries, and affected Host Country Ambassadors and designated Host Country Teams) and in some instances USAID senior management (includes the Administrator, affected Assistant Administrators and Assistant Deputy Administrators, and designated Host Country Project Teams).

Using the approved US foreign policy position as a baseline, the policy team drafts a foreign policy recommendation for senior State management to approve (includes the Secretary, Deputy Secretary, Under Secretary, Assistant Secretary, Deputy Assistant Secretary, and affected Host Country Ambassadors) and USAID senior management (at a minimum includes the Administrator and designated Assistant Administrators). Upon approval by the Secretary, the draft becomes official US Foreign Policy.

Implements US Foreign Policy. This process consists of four major activities:

- Develops/Updates Strategies for Implementing US Foreign Policy
- Develops/Updates Programs and Projects for Implementing US Foreign Policy
- Presents Programs to Congress

- Provides Analytical and Technical Expertise and Assistance

This process is initiated with the approval of official US Foreign Policy to develop new or to update existing strategies to carry out the new or revised foreign policy. Revisions are made by State and USAID senior management (includes the Under Secretary, Assistant Secretary, Deputy Assistant Secretary, affected Host Country Ambassadors, and the USAID Administrator and affected Assistant Administrators) and their advisors and analysts.

If not already in place, the new or revised strategies require the establishment of new, or update of existing programs by their functional or regional bureau staff. To implement a program, a program plan must be developed or revised. The development, implementation, and execution of a program plan may identify the need to establish one or more projects. Each project will need a project plan developed by functional or regional bureau staff or Host Country Team and approved by the respective senior management. A project plan specifies the appropriate resources to be acquired, the tasks to be performed, and a schedule for executing the tasks and acquiring the resources at the appropriate time.

The program(s) is developed by the functional or regional bureau staff and approved by their senior management. Each new program must be presented to and approved by Congress. An approved program is implemented using the functional or regional bureau staff to provide analytical and technical expertise and assistance to the assigned program manager.

Executes US Foreign Policy. This process consists of three major management activities, six program-specific activities, and two support-related activities.

Management activities include:

- Implements US Foreign Policy Programs and Projects
- Monitors and Manages Execution of US Foreign Policy Programs and Projects
- Manages and Coordinates International Activities

Program-specific activities include:

- Conducts Foreign Relations and Diplomacy
- Provides Assistance (financial, humanitarian, and developmental) to Foreign Governments and International Organizations
- Assists US Businesses Overseas
- Coordinates USG Response to International Crises
- Provides Consular Services
- Analyzes and Reports on International Issues

Support activities include:

- Manages Department Operations and Provides Support for International Activities
- Makes Arrangements and Supports Visiting Delegations, Ceremonies, and Events

This process is initiated with the execution of program plan by the functional or regional bureau staff, which in turn may initiate the execution of one or more project plans by the designated Host Country Teams. The execution of the project plan results in the delivery of a product or service to the affected host country(s), international organization, or foreign or US citizens specified by the program-specific activities.

Summary. State is solely responsible for the formulation and implementation of US foreign policy. USAID is responsible for formulating and implementing policy pertaining to International Development and Humanitarian Aid initiatives and programs. Both share responsibility for the successful execution of policy.

Program Management Perspective

Program management requires State and USAID to play three different roles to implement a program, monitor its execution, and execute or carry out the activities associated with the purpose of the program. The roles include Program Coordinator, Program Manager, and Project Manager. The responsibilities of each are briefly described below.

Program Coordinator. The Secretary, on approving US foreign policy, appoints a Program Coordinator to assume responsibility for implementing the approved policy. If the policy addresses a new area, a new program coordinator is assigned responsibility for the area. If the policy resides under the purview of an assigned program coordinator that program coordinator is responsible for incorporating the new policy within the existing assigned programs.

In either instance, the program coordinator needs to create new or revise existing strategies that may require the establishment of a new program or the modification of an existing one.

A program coordinator may be responsible for one or more program areas, that are referred to as a **portfolio**. The set of activities required to administer a set of related programs is referred to as **portfolio management**. If the program coordinator has assumed responsibility for policy that requires that a new program be established, the program coordinator creates a new program management structure and assigns a program manager responsibility for this program area. Regardless, the program coordinator will work with the assigned program managers to implement the strategy to carry out the needs of the new policy.

Currently, the State and USAID programs fall into one the following functional program categories or portfolios:

- Democracy, Human Rights, and Labor programs
- Economic, Commercial, and Agriculture programs
- Environmental, Scientific, and Technology programs
- Social, Cultural, and Education Exchange programs
- Foreign and Humanitarian Assistance programs
- Global Health and HIV-AIDS programs

- Security and Regional Stability programs
- International Crime, Narcotics Control, and Counter-Terrorism programs
- Political Military, Non-Proliferation, and Arms Control programs

State and USAID also have functional programs in their portfolios that address the needs and capabilities of international and multi-lateral organizations and of a specific regional geographic area or a single host-country. These programs are assigned to Program Managers within the regional bureaus to address the specific needs of the respective geographic region. In this regard, functional program coordinators manage programs within their single, specific functional area (e.g., Democracy, Human Rights, and Labor programs only). Conversely, regional program coordinators and ambassadors manage one or more functional programs. The mixture of functional programs they manage depends on the needs of their assigned regional area or host country.

Program Manager. Upon assignment of a program by the Program Coordinator, the Program Manager, with assistance from their functional or regional bureau staff, initiates development of a new or update to an existing program.

To implement a program, a program plan must be developed or revised. This program is developed by the program manager (with assistance from the respective functional or regional bureau staff) and approved by the Program Coordinator. The Program Manager is responsible for:

- Implementing and monitoring the execution of the program plan
- Ensuring that the desired results satisfy the purpose and strategic objectives and goals of the program
- Ensuring that the activities performed within the purview of the program are in compliance with the associated USG, State, and USAID policy, procedures, and standards of performance.

Collectively, these activities are referred to as ***program management***.

A program manager may be responsible for establishing and monitoring the execution of one or more projects within any given timeframe. In addition, while developing or monitoring the execution of a program, the Program Manager may recognize the need for a specific project to meet a short-term objective. This requires that the Program Manager establish a project management structure and assign a Project Manager to carry out this short-term initiative.

Project Manager. Program managers assign project development responsibility to project managers. The Project Manager develops a project plan that specifies the purpose of the project, the appropriate resources to be acquired, the tasks to be performed, and a schedule

for executing the tasks and acquiring the resources at the appropriate time to achieve the desired results. The execution of the project plan results in the delivery of a product or service to the affected host country(s) or US or foreign citizens specified by the program. This set of activities is referred to as ***project management***.

Task Manager. A project can have one or more tasks that are large in scope or are extremely complex. To manage multiple tasks, a Project Manager may assign one or more of the task responsibilities to a Task Manager. The Task Manager has the same duties as a Project Manager but focuses only on accomplishing the assigned task(s). The Task Manager, reporting directly to the Project Manager, is responsible for successfully completing the assigned task(s) and achieving the task's purpose, objectives, and goals. The Task Manager must develop a task plan (like a mini-project plan). The execution of the task plan normally results in the delivery of a component of the Project's product, or a subset of a Project's service offering. The set of activities that are specific to the accomplishment of a single large or complex task within a project is referred to as ***task management***.

Summary. Program Coordinators, Program Managers, and Project Managers (and their respective staff) routinely perform the following activities in support of the management of programs and their associated projects that execute or carry-out US foreign policy:

- Monitoring and managing the execution of US foreign policy programs
- Monitoring and managing the execution of US foreign policy projects
- Managing and coordinating international activities
- Updating US foreign policy, strategies, programs, projects, and plans based on ever-changing priorities in response to unfolding events and situations within their respective program areas.

Geographic Perspective

State and USAID are global organizations. They both conduct their business in facilities at geographic locations around the world.

State Facilities and Geographic Locations. State conducts its business in three different types of facilities: Headquarters, Regional Service Centers, and Posts. State conducts portfolio management activities at Headquarters facilities located in Washington, DC. Most functional and regional portfolio and program management activities are also conducted at Headquarters.

State has six regional bureaus, primarily located at HQ, that are responsible for the following geographic regions:

- African Affairs (AF) bureau
- European and Eurasia Affairs (EUR) bureau
- East Asia and Pacific Affairs (EAP) bureau
- Near East Affairs (NEA) bureau
- South Asia Affairs (SA) bureau

- Western Hemisphere Affairs (WHA) bureau

State has many program and project-related activities that are also conducted within a specific host country within one of these geographic regions. The host country–related activities are conducted at USG facilities managed by State and are referred to as Posts. Most State projects are performed at Posts. A Post may consist of an Embassy, a Consulate, and one or more small offices within a Host Country.

In addition, some regional program and project management activities may be conducted at Regional Service Centers within their respective geographic regions overseas. State has four regional service centers that operate at the following locations:

- Fort Lauderdale, Florida (services WHA)
- Charleston, South Carolina (services RM)
- Frankfurt, Germany (services NEA and AF)
- Bangkok, Thailand (services SA and EAP)

USAID Facilities and Geographic Locations. USAID conducts its business in two different types of facilities: Headquarters and Missions. Most of the functional and regional portfolio and program management activities are conducted at Headquarters. USAID’s four regional bureaus service the following geographic regions:

- Africa (AFR) bureau
- Asia and Near East (ANE) bureau
- Europe and Eurasia (E&E) bureau
- Latin America and Caribbean (LAC) bureau

USAID has many program and project related activities that are also conducted within a specific host country within one or another of these geographic regions. Host country facilities are referred to as Missions. The activities performed at Missions may be within USG facilities managed by State or in leased facilities. The location of a USAID Mission is decided by determining where it can provide the best service for the project and the host country.

Summary. Both State and USAID operate globally and use different types of facilities to conduct their business.

Coordination of Activities Perspective

Currently, the major activities performed by State and USAID and related to the execution of foreign policy via programs and projects include:

- Assisting US businesses conduct business overseas
- Providing humanitarian and development assistance to Foreign Governments and International Organizations
- Coordinating a USG response to a natural or man-made crises or disaster

- Providing consular services to US and foreign citizens
- Analyzing and reporting on international issues
- Conducting foreign relations and diplomacy
- Making arrangements and providing support for diplomatic delegations and international and USG ceremonies and events

Coordination of Portfolio Management Activities. Portfolio management activities are necessary to satisfy the functional or regional bureau's purpose and its strategic objectives and goals. It is essential that Program Coordinators, Program Managers and Project Managers continuously monitor the execution of their respective programs and projects, and coordinate their activities to:

- Ensure that their assigned activities maintain alignment with and fully support the official US foreign policy;
- Ensure changes in priorities and direction due to unfolding events and situations are quickly reflected in US foreign policy programs and projects;
- Respond to the ever-changing need for the allocation and reallocation of resources across portfolios within State and USAID; and
- Respond quickly to new or different needs whether in response to natural or man-made disasters and crises within in their functional and regional areas of responsibility.

All of these management activities affect the success of the actions undertaken by the programs and projects within a portfolio.

Program Coordinators are responsible for ensuring the activities of the programs and projects within a portfolio are properly aligned and that one program or project does not adversely affect others within the portfolio. They are also responsible for coordinating their activities with other Program Coordinators across State and USAID to ensure that the set of portfolios complement each other and do not detract from or endanger the success of each other's respective missions.

Coordination of Program Management Activities. Each program requires the Program Managers to:

- Establish the requisite program management structure;
- Ensure assigned personnel are available for work when and where necessary, adequately trained, and know who they are to exchange information and coordinate their activities to accomplish their assignments;
- Regularly conduct meetings to introduce new personnel to the current team, obtain the latest status of program activities from the team, provide direction as necessary, and ensure program activities are synchronized and have adequate resources on-hand;
- Acquire, allocate and re-allocate resources within the program, as needed; and
- Manage, monitor and respond to the needs of program and project-related activities.

These program management activities are necessary to satisfy the program's purpose and its strategic and operational objectives and goals.

Coordination of Project Management Activities. Each project requires the Project Manager to:

- Establish the requisite project management structure;
- Ensure assigned personnel are available for work when and where necessary, adequately trained, and know who they are to exchange information and coordinate their activities to accomplish their assignments;
- Regularly conduct meetings to introduce new personnel to the current team, obtain the latest status of project activities from the team, provide direction as necessary, and ensure project activities are synchronized and have adequate resources on-hand;
- Acquire, allocate and re-allocate resources within the project, as needed; and
- Manage, monitor and respond to the needs of project and subordinate task activities.

These project management activities are necessary to satisfy the project's purpose and operational objectives and goals.

Coordination of Program and Project Execution Activities. Program and Project Managers orchestrate the activities performed by a multitude of USG employees and stakeholders required to deliver the products and services necessary to fulfill the intended mission of their assigned programs and projects.

The coordination effort requires program and project managers to ensure that assigned program and project activities:

- Are scheduled to execute at the proper time;
- Have the appropriate type and number of resources available at the appropriate time, without incurring wait time or overwhelming the capability of the activities to accept the resources;
- Are synchronized to execute at the proper time with other associated activities;
- Are executed at the appropriate time to ensure successful completion without error, an inefficient use of resources, or causing an undue impact on the execution of other associated activities;
- Exchange information and resources with other associated activities efficiently and without error;
- Are shut down properly without error, an inefficient use of resources, or causing an undue impact on the execution of other associated activities.

Summary. The synchronization of activities and availability of resources impact the delivery of a product or service to a regional area or host country or the achievement of a desired result. It is the responsibility of the Program Coordinator, Program Manager, and Project Manager to keep each other informed so that a high-quality product or service is delivered on time and within budget, or a desired result is achieved.

Resource Management Perspective

The Under Secretary for Management and the Chief Financial Officer (CFO) within State, and the Assistant Administrator for Management within USAID are responsible for managing the

operations of their organizations and for providing support for the international activities performed by the portfolio, program, and project managers described above.

They are further responsible for ***resource management***. This management activity includes identifying, procuring, scheduling, and timely delivery of the resources required (i.e., funds, physical assets, personnel, and information) for the successful execution of State and USAID programs and projects, regardless of geographic location.

Besides managing and maintaining the State and USAID facilities, State's Under Secretary of Management and CFO, and USAID's Assistant Administrator for Management are responsible for the numerous support services that are required to meet the needs of executive management (the Secretary, Deputy Assistant Secretary, Under Secretaries, and the USAID Administrator), senior management (including the Assistant Secretaries, Deputy Assistant Secretaries, Assistant Administrators, program coordinators, and functional and regional program managers) and operational management (including the office directors, branch managers, supervisors, and project managers).

Attachment B: Version 2 Requirements: Definitions

For JEA v2, State collected, classified, and analyzed 465 business requirements from senior management's responses to the Business Analysis Tool surveys. The EA team then grouped the requirements into 11 categories and returned them to senior management in the E-Government Program Board for approval. These approved requirement categories became the foundation for the JEA v2 Transition Plan and our JEA v3 requirements collection and analysis effort.

Requirement 1: Communicate Business Information identifies the need for State and USAID to exchange business information between two or more involved parties using various types of media. These timely, accurate, and reliable communications may occur at any time, and take place regardless of location (internal or external to the State, USAID, or federal government) around the globe. This requirement will improve the capability to exchange information between two or more involved parties in a more expeditious manner, so as to more fully comprehend unfolding events and situations, and take immediate action for all who participate in the State and USAID business activities. This is the most important requirement with regard to achieving the State's and USAID's primary purpose of conducting foreign relations and diplomacy, and providing developmental and humanitarian assistance to host country governments and international organizations.

Requirement 2: Conduct Meetings identifies the need to enhance the current capabilities of conducting meetings within the State and USAID, as well as among other involved parties (i.e., stakeholders). This enhancement should allow meeting attendees or participants to focus on the need to: a) resolve issues; b) collaborate on the development of a work product; c) identify opportunities; d) seize an advantage; or e) report the status of unfolding and evolving events and situations. Ideally, these meeting activities should permit the attendees or participants to complete their assigned tasks and not be distracted by the "mechanics" of conducting a meeting. It is anticipated that numerous types of media will be used to support the conduct of meetings. It is assumed meetings can occur at any time, and take place at the same location or between two or more locations anywhere around the world.

Requirement 3: Coordinate Program Activities identifies the need to ensure the involved parties, associated with either a foreign policy and support program or project, are: a) adequately making their needs and contributions known; b) working towards ensuring a harmonious synchronization of their shared activities; and c) working together to ensure the fulfillment of their respective pressing resource needs. The ability to perform this activity

exceptionally well is extremely important to advancing U.S. foreign policy priorities around the world. This requirement enables the execution and integration of the numerous tasks associated with a program or project.

Requirement 4: Continuity of Operations identifies the need to: a) provide a reconstitution capability to ensure continuous intelligence support to link to the Secretary and his senior foreign policy advisors with the National Command Authorities and the Intelligence Community during a national crisis or during an emergency disruption of vital State communications; b) implement the Continuity of Operations (COOP) Plans and Crisis Management Plans; and c) ensure critical State and USAID day-to-day activities remain operational and sustainable, and that non-critical activities are brought back “on-line” at the earliest point in time after an emergency or disaster occurs and without risking disruption of the critical operations.

The reconstitution effort requires the ability to continue to operate and maintain communication links, equipment, and secure workspace at an alternate site in the event a terrorist attack or national emergency that renders State’s facilities unusable or unsafe. The implementation of these plans involves: a) setting up the necessary watch desks to handle and coordinate these activities; b) ensuring that critical and essential personnel have the resources they need to carry out their portion of the plan and their assigned responsibilities; and c) non-essential personnel are kept informed of events and situations as they unfold and can be contacted or made available when needed.

Requirement 5: Disseminate Information identifies the need to send information to the appropriate recipients at the appropriate geographic location (i.e., home, office, electronic device, car, or travel location), at the correct time (to meet U.S. foreign policy objectives or satisfy a recipient request), and in a format that, when feasible, is customized to the recipient’s needs and personal preferences.

Requirement 6: Conduct Training identifies the need for an improvement in the set of requisite knowledge, skills, and abilities of State’s and USAID’s human resources to achieve management’s objectives and goals. From a different perspective, State and USAID employees (and other authorized involved parties, where appropriate) are requesting the ability to obtain and expand their personal knowledge, skills, and abilities so that they can perform their day-to-day activities in the most effective and efficient manner and are able to successfully complete their assignments. This requirement requires an improvement in the ability to prepare training plans and materials, conduct training, and subsequently obtain data to evaluate the effectiveness of the training provided and implement improvements to fit the ever-changing skill-sets required of the State and USAID employees.

Requirement 7: Program Resource Management identifies the need for management to: a) monitor, evaluate and provide remedial and proactive responses to the execution of

programs; and b) ascertain whether the resources allocated and deployed are at an optimal mix to advance U.S. foreign policy priorities around the world, and ensure the development and humanitarian assistance activities are sustained and not hindered. This requirements enables management to: a) quickly identify programs (and associated projects) that are experiencing difficulties; b) analyze the current allocation and mix of program resources to evaluate and ascertain their effectiveness, utility, and rate of consumption; and c) adjust current resource allocations based on this analysis.

Requirement 8: Funds Resource Management identifies the need to: a) plan for the allocation of financial resources b) capture and accurately record financial transactions in a timely manner; c) account for the use of financial resources; and d) track and report the status of funds and other financial resources. This requirement enables a more effective and efficient utilization and management of State's and USAID's limited financial resources.

Requirement 9: Human Resource Management identifies the need to provide a work environment that: a) encourages employees to stretch their personal objectives and goals and seek additional knowledge; and b) provides the capabilities to better manage and ensure an optimal utilization of State's and USAID's human resources. This requirement addresses the need to improve the recruitment and selection of qualified candidates, assignment and re-assignment of employees, workload management, and the tracking and control of human resources deployed throughout State and USAID.

Requirement 10: Physical Asset Resource Management identifies the need to: a) capture and accurately record the acquisition and disposal of physical assets in a timely manner; b) plan and account for physical assets; and c) track and report the status of physical asset resources (i.e., on order, in transit, in storage, in use, being maintained or repaired). This requirement identifies needed improvements in the allocation and control of physical asset resources (e.g., equipment, tools, furniture, vehicles, etc.) and need for more effective and efficient utilization and consumption of State and USAID resources.

Requirement 11: Information Resource Management identifies the need to: a) improve the ability to deliver information technology (IT) products and services; b) make more judicious utilization of information resources; and c) better manage information resources. Specifically, this requirement identifies improvements required to: a) exchange information with others; and b) capture, store, and access information. It will permit State and USAID employees to have the information available that they need to: a) take the appropriate action at the appropriate time; b) make informed decisions; c) share information about important matters with others to obtain a more complete and well-rounded understanding of these matters; and d) share information about unfolding or historical events and situations with others and perhaps, influence their subsequent actions and responses.

Attachment C: Joint EA Repository

The joint State and USAID EA repository is being developed to provide centralized storage and retrieval of EA artifacts and information. This information is essential for use in planning, management and decision-making. The repository is intended to provide easy access to related sets of information on businesses and technologies at State and USAID required to make joint decisions about program and IT investments.

Intended Use of the Repository

The ability to have a “living architecture” relies on the ability to store, update and access artifacts collected by both organizations. The repository product along with a series of front-end tools for entering information and reporting will provide that capability. This approach will allow different levels of the enterprise to be viewed from different perspectives, looking at business processes, data, and technology, which may not otherwise be able to be seen. The vision of the EA and the supporting repository is that it will be sufficiently versatile to answer the needs of employees, including senior management, planners, systems analysts and designers, project managers, enterprise architects and business owners at both agencies to promote collaboration with one another.

Utilizing the EA Repository To Discover Business Needs, Assess Enterprise Impact, and Avoid Duplication

The joint enterprise architecture represents a holistic view across the enterprise and illuminates opportunities for change. Using the EA repository’s analytical features, complex queries and “what-if” type simulations can be generated resulting in greatly enhanced decision making. To illustrate this capability, a set of business use cases are listed below:

- **Business Question:** Which new projects should be funded for next year?
- **EA Answer:** Each new project must demonstrate in its Business Plan how it supports the enterprise architecture. EA and FEA models will enable business planners to see where the project fits into the existing architecture so they can determine its value to the enterprise.
- **Business Question:** Which system support components should be upgraded or modernized?

EA Answer: The To-Be Architecture and Gap Analysis will have identified functions and/or systems that are outdated and the associated interfacing systems.

- **Business Question:** As the State/USAID integration evolves, what is the impact of consolidating functions, business systems, and infrastructure?

EA Answer: Analysis using the linked artifacts in the repository will identify functional commonalities and duplicative IT investments.

- **Business Question:** What impact would a sudden budget change (surplus or deficit) have on funded programs or projects?

EA Answer: The EA models will show dependencies and relationships among the projects, organizations, and technical resources.

- **Business Question:** How can we take advantage of emerging technologies?

EA Answer: An assessment of emerging technology drivers is a critical step in the development of the To-Be Architecture. The assessment will include emerging standards and best practices related to the new technologies.

- **Business Question:** How do we identify process touchpoints and analyze the information flow across those intersections.

EA Answer: The enterprise models of information exchange should reveal points at which processes intersect or touch.

- **Business Question:** How can we more effectively manage IT costs?

EA Answer: The project managers and program planners can use the architecture to help identify overlapping and/or redundant IT support services. The architecture should prevent the creation of new “islands of technology” and increase the utilization of scarce IT resources.

Future development of the Repository

Future EA repository development will rely on other agency “Best Practices” and experiences to best focus our efforts. The high-level solution architecture for the repository is shown below:

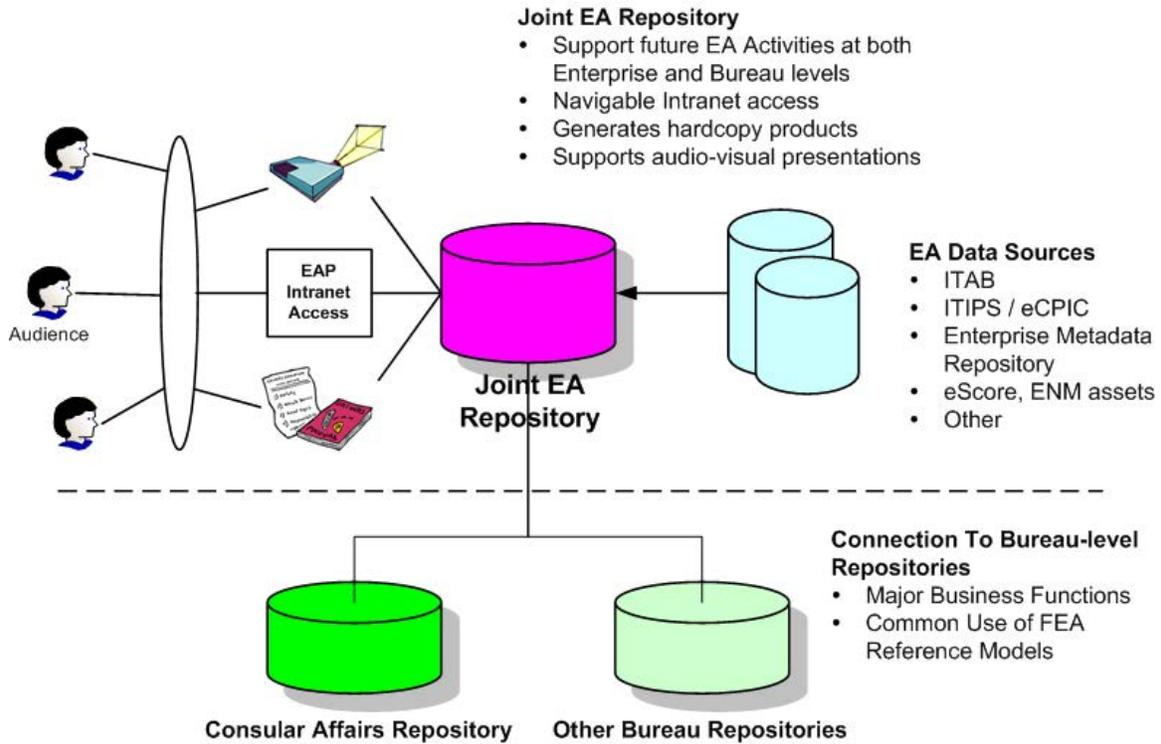


Figure C1: Joint EA Repository Solution Architecture

The EA Repository and the Applied JEA

The Applied JEA document has been compiled while the EA repository has been under development. During this transitional period, pre-existing JEA v2 artifacts that have existed in document and database form have been undergoing review and restructuring to be loaded into the repository. Since the Applied JEA is based on analysis of v.2 artifacts as well as newly collected Information Security and Telecommunications artifacts, a set of standalone documents, spreadsheets, databases were used in conjunction with the EA repository to produce the needed analyses and resulting tables, diagrams, and narratives.

The figure below shows the main screen of the prototype joint EA repository.

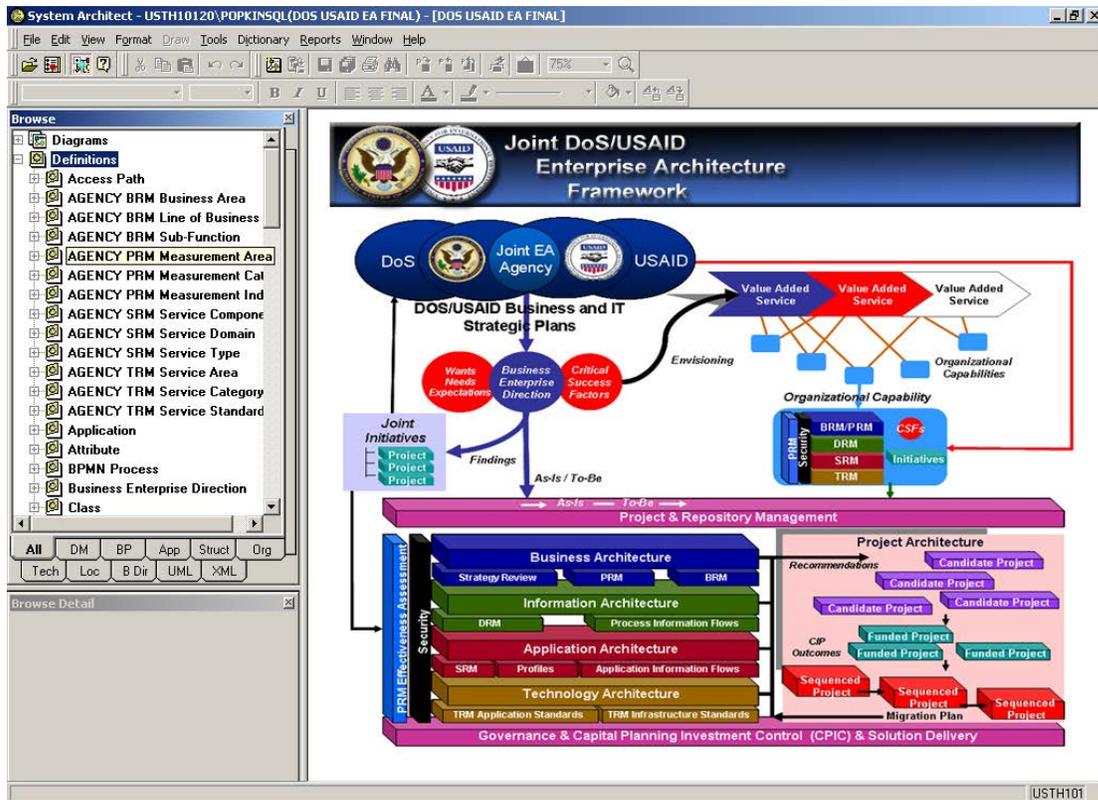


Figure C2: Main screen of Joint EA Repository

Use of the EA Repository For Analysis and Reporting

This attachment includes a series of reports that have been used to analyze a portion of the information stored in the Joint State/USAID EA Repository. They are representative of the kinds of reports we will be able to produce from the repository. These reports focus on the connection between the EA and the CPIC process, showing alignments of IT investments to the FEA and supporting applications and systems. The following reports are attached:

- Joint BRM Lines of Business – Subfunctions
- Joint 300 Projects – BRM View
- Joint 300 Projects – SRM View
- Joint 300 Projects – TRM View
- Joint Major Applications
- Complete Catalog of Applications – BRM View

- Complete Catalog of Applications – SRM View
- Application Profiles