United States Agency for International Development

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USAID HIV/AIDS Segment

Application and Technical Architecture

Business and Information Architecture

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Draft Final

Version History

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MST- PMO-004-CS-097-F01-IBM	03/10/04	Final	EM, RC
MST-PMO-004-CS-096-D01-IBM	02/09/04	Draft Final	EM, RC

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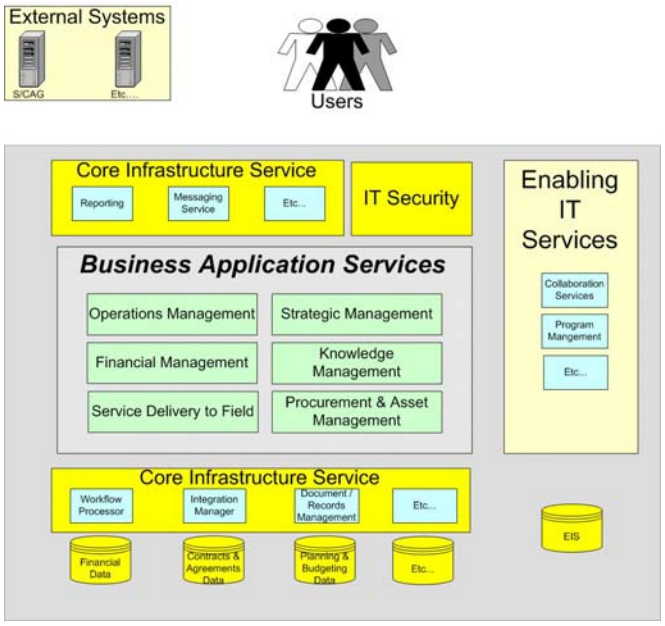
Summary

The current USAID IT infrastructure has a number of applications that are important to supporting the HIV/AIDS program. By applying a technology strategy of building a web-enabled, component based architecture, and by developing key capabilities to support strategic planning and budgeting processes, the suite of technical services provided by the IT infrastructure will be able to meet evolving HIV/AIDS program needs.

The technical services architecture to support the HIV/AIDS program that is depicted below consists of five automated service areas:

- *Business Application Area Services* provide direct automated support for the business processes,
- *Core Infrastructure Services* provide core functionality that business application area services use to implement their purpose,
- *Enabling IT Services* provide the capabilities to develop, maintain, and support the IT infrastructure,
- *Data Store Services* provide the capabilities to manage and store the knowledge, information, and data used by the HIV/AIDS program, and
- *External Systems and Data* provide externally available information and functionality used to support the HIV/AIDS program.

Figure 1: Services Architecture Summary



To realize the architecture two classes of recommendations are provided: technology recommendations and IT governance and policy recommendations. The Technology recommendations listed below are realized through the projects described in the *HIV/AIDS Segment Overview*. The IT governance and policy recommendations that follow the Technology recommendations provide guidance for existing and future IT investments.

Technology Recommendations

1. **Develop web-enabled transactional environment -** Develop a delivery mechanism that integrates existing applications with a web-enabled computing environment. For example, a web portal (single integrated environment) that recognize users when they log-on and automatically provides access to authorized resources they require (personalization).

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.

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. Workflow technology is used to support the automation of business processes. The benefits include efficiency through organization, scheduling, controlling, and monitoring processes.

4. **Develop an Executive Information System for program management information -** Develop an Executive Information System with a dashboard application tailored to meet the executive's HIV/AIDS program management information needs. The Executive Information System will integrate within the web-enabled environment. System functionality will include access to diverse data, drill-down capabilities, reporting, and graphical presentation with an emphasis on ease of use (e.g., mouse driven without assistance). It will include the development of a data mart that centralizes existing information.

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.

6. **Develop knowledge management taxonomy to support the knowledge management strategy -** Develop a knowledge management taxonomy that integrates both program management and technical knowledge. Establish a taskforce to design a knowledge management delivery mechanism that utilizes the web-enabled environment. This effort will align with and leverage the current USAID knowledge management strategies and initiatives (such as efforts currently underway at PPC and CDIE).

7. **Extend the field support concept to include catalog management support and pre-procurement support -** Evaluate the current approach to the field support initiative and extend the current functionality to include online catalog and pre-procurement capabilities. This will also expand the functionality currently being provided by NewVern. The benefit of extending the field support concept is to supports the development of USAID's rapid response initiative.

IT Governance & Policy Recommendations

1. **Vet USAID initiatives with ongoing eGovernment initiatives -** Continue to examine current and new initiatives for use in the eGovernment framework. This examination will utilize a component based, core infrastructure, and web-enabled services framework. Emphasis will be placed on the interoperability with USAID infrastructure.

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. Formalized standards will be enforced and stress a component based infrastructure that allows code re-use and sharing of services.

3. **Take an evolutionary approach to developing core infrastructure services –** Development of functionality of the core services should be done in an evolutionary, centrally controlled manner. Develop additional components for the core infrastructure services architecture as they are needed to address specific user needs.

USAID has a unique opportunity to demonstrate leadership to the S/GAC in developing a flexible and scalable application and technical architecture that adapts to changing program needs. By applying the technology strategy outlined in this document and following the *HIV/AIDS Segment Overview* recommendations the HIV/AIDS Program will continue to mature strengthening USAID's leadership role in providing assistance to the developing world.

1. Introduction

The *President's Emergency Plan for AIDS Relief (PEPFAR)* is a comprehensive approach for addressing the HIV/AIDS pandemic in the 14 most severely afflicted African and Caribbean countries. Key elements of PEPFAR include the administration of uniform preventive education, care, treatment, and distribution of prepared medical packs. PEPFAR will build on the existing clinics, sites, and community based programs established through the United States Agency for International Development (USAID), the Department of Health and Human Services, non-governmental organizations, and faith-based groups. In implementing its activities under PEPFAR, USAID faces significant logistical, financial, and programmatic challenges. How can USAID best apply its unique capabilities, talented but overextended resources and limited assets in the most expeditious and cost effective manner to address the HIV/AIDS Crisis?

1.1 Background

The United States Agency for International Development (USAID) is a key partner in the worldwide campaign against HIV/AIDS. Within the Agency, the HIV/AIDS Program is relatively young, attempting to oversee an extremely complex initiative with world-wide implications. As a result, the HIV/AIDS Program must navigate the length and breadth of USAID to implement and measure the effectiveness of HIV/AIDS interventions. The HIV/AIDS Program performs two distinct and different roles across the Agency: Program Oversight in Washington and Program Operations overseas. The HIV/AIDS Program also interacts with various USAID Management Bureau organizations with primary touch points in the business areas of Financial Management (FM), Acquisition and Assistance (A&A), and Budgeting (B). The HIV/AIDS Program has a tremendous challenge ahead - it must strengthen the Agency's ability to meet upcoming Program challenges by leveraging its numerous deep and well-grounded strengths to begin addressing future challenges.

PEPFAR,, announced in the 2003 State of the Union Address, will dramatically expand HIV/AIDS programs in the most afflicted countries. Under the direction of the Global AIDS Coordinator (S/GAC), PEPFAR aims to prevent 7 million new HIV infections, provide life-extending treatment to at least 2 million infected people, and give care and support to 10 million people and orphans living with HIV/AIDS. USAID's approach to achieving these goals is to implement programs around seven program areas (Prevention, Care, Treatment, Mother to Child Transmission, Children Affected by HIV/AIDS, Policy & Institutional Strengths, and HIV Surveillance) that are designed to achieve PEPFAR's global targets. In all countries, improving national surveillance, increasing the capacity of health systems and working in partnership with host country colleagues and other partners are essential program elements.

In order to meet future program challenges, USAID decided to use the Enterprise Architecture (EA) methodology to identify opportunities to improve the processes and information needed to accomplish its mission. As detailed in *The United States Agency for International Development Strategy for Enterprise Architecture Development* (Final Version 1.2 November 2003) USAID's approach for developing its overall EA is to focus initially on its HIV/AIDS program segment. The EA provides an understanding of the HIV/AIDS Program's current environment, envisions a

future operating model based on select capabilities, and presents a transformation path to get there. The EA also helps to discover redundant or inadequate capabilities and establish linkages between information technology and mission and program performance.

1.2 Scope

This document identifies and describes the suite of automated services that support the USAID HIV/AIDS program to-be capability model as documented in the Business and Information Architecture Overview (MST-PMO-004-CP-047-F00-IBM, December 8, 2003). It discusses, in detail, the relationship between these services and capabilities, the relationships to existing applications and ongoing USAID initiatives. Gaps are then explored through tracing to formulate the projects documented in the Initiatives and Project Profiles.

1.3 Assumptions

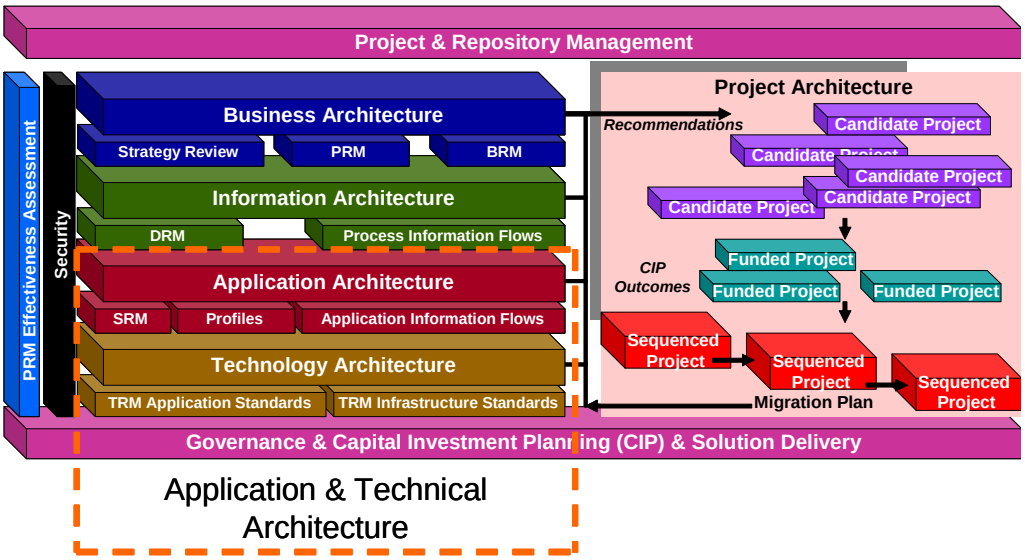
Key assumptions used when developing this document are:

- The set of services identified by to-be applications, combined with the services identified in the to-be operating vision, represent the overall scope for the to-be application and technical architecture
- The as-is architecture is described by a technical model whereas the to-be architecture is described by a services architecture
- USAID does not currently employ a component based, service oriented architecture.
- The FEA PMO reference models as of 1 August, 2003 are:
  - Service Reference Model v 1.0
  - Technical Reference Model v 1.0

1.4 Enterprise Architecture Methodology

At the core of the USAID EA methodology is the USAID Business and Information alignment framework. This framework (Illustrated in Figure 2 below and hereafter referred to as the "framework") redefines the existing Federal Enterprise Architecture Framework (FEAF) by guiding EA development towards Federal Enterprise Architecture (FEA) compliance. The components of the FEA are the Service Reference Model (SRM), Data Reference Model (DRM), Performance Reference Model (PRM), Business Reference Model (BRM) and the Technology Reference Model (TRM). The As-Is Business, Information, Application, and Technology architectures consist of a set of these deliverables. The To-Be state deliverables further sub-divide into strategic timeframes. A gap analysis between the As-Is and To-Be yields a set of recommended candidate initiatives and supporting projects, that when implemented, will support USAID's migration from the existing baseline to the target environment.

Figure 2. Scope of the Business and Information Architecture



In accordance with the development methodology described in the *USAID Enterprise Architecture Development Methodology* and the HIV/AIDS Segment Enterprise Architecture project plan, this document contains the current ("As-Is") applications that support the HIV/AIDS program and the future ("To-Be") technical services that support the future HIV/AIDS program operating vision.

The *Application and Technology Architecture* development began with an envisioning session whereby the framework for partitioning future application functionality was developed. This framework took into consideration the direction put forth in the Joint Department of State/USAID Strategic Plan, federal initiatives (such as eGovernment and the quicksilver initiatives), and ongoing USAID program initiatives. The technological services identified in the To-Be Business and Information Architecture were then analyzed and further developed within this framework. The result of this activity is the To-Be Application and Technical Architecture presented in Part 4 of this document.

1.5 Application and Technology Architecture Document Layout

There have been two fundamental steps in the HIV/AIDS Program Enterprise Architecture effort. They are the assessment of the current "As-Is" environment, and the development of the recommended "To-Be" environment. This document is the culmination of these two fundamental steps. It describes the road map which will allow the HIV/AIDS Program to transition from the As-Is to the recommended To-Be environment. Following is a brief overview of this document.

Part 2 " USAID HIV/AIDS As-Is Technical Architecture" describes the USAID HIV/AIDS high level overview of the applications, infrastructure, security, and scalability currently used to support the HIV/AIDS program.

Part 3 "USAID HIV/AIDS As-Is Application Details" describes the set of applications identified in the As-Is Business and Information Architecture in terms of the technologies used by the applications. This information is repeated from the USAID HIV/AIDS Segment As-Is Application and Technical Architecture Final, MST-PMO-004-CP-049-F00-IBM, December 19, 2003

Part 4 "USAID HIV/AIDS Service Architecture" provides a description of the technical services that supports the To-Be HIV/AIDS program vision documented in the USAID HIV/AIDS To-Be Business and Information Architecture Overview. It includes: the consolidated list of technological services which realize the To-Be Program vision, the organization of the architecture which provides services based automation support for the HIV/AIDS Program, and a cross reference between the automation services and the To-Be business processes.

2. As-Is Technical Architecture

2.1 Overview

The HIV/AIDS program has been described from a business perspective in the *Business and Information Architecture*. As part of the discussion, a number of systems, applications, and tools were identified in support of the sub-processes. The diagram in Figure 3 on the following page lays out the current suite of systems, applications, and tools used in the program.

As can be seen, three fundamental areas where systems, applications, and tools reside are interconnected with the USAID network infrastructure. The fundamental areas are:

- USAID/W (including various Washington, DC area locations)
- Missions
- Internet

The network infrastructure used for interconnecting these areas consists of:

- Local Area Network(s) (LAN)
  - USAID/W
  - Missions
- USAID Wide Area Network (WAN)
  - X.25 Network
  - VSAT Network
- USAID Metro Area Network (MAN)
  - Predominantly T1
- Internet
  - unsecured
  - secured with Virtual Private Network (VPN) technologies

The USAID WAN consists primarily of an X.25 network for data and the DTS-PO for voice. The DTS-PO can be used for dialup when problems exist on the X.25 network or X.25 access is unavailable. Security measures have been put into place such as firewalls and a DMZ at the Ronald Reagan Building. USAID has a T-1 connection to Department of States and Intranet. Other metropolitan sites such as Springfield, VA, Rosslyn, VA, Beltsville, MD, and Laurel, MD are connected through multiple T-1s.

Missions are connected through the Globalsat teleport in Laurel, MD. In addition, missions have their own connection to the Internet. Several missions such as New Delhi, Belgrade, Moscow, Manila, Jakarta, and Kiev utilize VPN access over a public internet.

The business process areas supported by the systems, applications, and tools illustrated in Figure 3 are:

- Program Oversight (PgmOV)
- Program Operations (PgmOP)
- Financial Management (FM)
- Acquisition & Assistance (A&A)
- Budgeting (B)

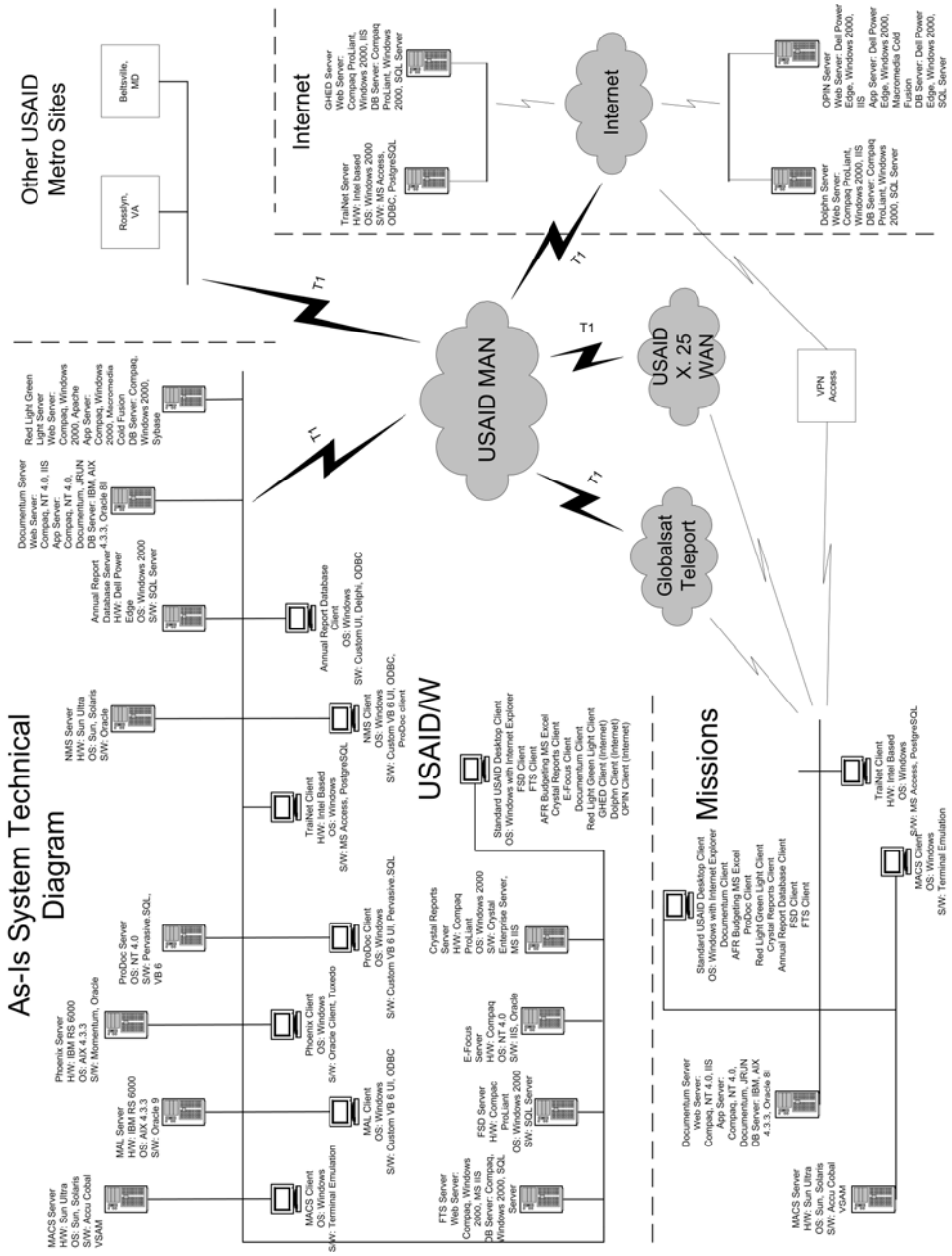
Program Oversight is supported by applications that can be described as “knowledge” tools and/or cuff systems. These applications include the Annual Report Database (ARD), the Field Support Database (FSD), Global Health Expenditure Database (GHED), Online Presidential Initiative Network (OPIN), Red-Light Green-Light, DOLPHN, and Financial Tracking System (FTS).

Program Operations is supported by a combination of the “knowledge” tools/cuff systems listed above and institutional systems. “Knowledge” tools/cuff systems include ARD, FSD, GHED, OPIN, Red-Light Green-Light, and OYB AFR Budgeting. Institutional systems include Phoenix, New Management System A&A (NMS A&A), Documentum, ProDoc, and Training Results and Information Network (TraiNet).

Financial Management is supported with institutionalized systems and one cuff system. These include Phoenix, MACS, MAL and Crystal Reports. E-Focus is used for accruals.

Acquisition & Assistance is support with institutionalized systems. These include NMS A&A, Documentum, and ProDoc.

Figure 3: As-Is System Technical Diagram



Budgeting is supported by both cuff systems and to some extent, institutionalized systems. Cuff systems include ARD, FSD, GHED, and OYB AFR Budgeting. Institutionalized systems include Phoenix and MACS.

A number of automated interfaces between these systems exist. They are:

- An automated interface between Phoenix and MACS is provided by MAL through which accounting data is exchanged. This exchange is performed on a monthly basis.
- An automated interface between Phoenix and NMS A&A is provided through which procurement data is exchanged between NMS A&A and Phoenix on a daily basis.
- Crystal Reports attaches directly to Phoenix and Documentum for report generation.
- Information for Red-Light Green-Light is pulled from both Phoenix and MACS on an ad-hoc basis. The data is imported into a staging area where it is massaged prior to posting on the web site.
- An automated interface exists between FSD and FTS whereby the field support and MAARD funds are planned in FSD, and these funds are then tracked in FTS.

Other exchanges of information between these systems are performed through report generation, and a combination of manual data entry and import features. Phoenix, MACS, and NMS A&A are sources that feed other systems. The data from Phoenix, MACS, and NMS A&A, are combined with data obtained from other systems to generate reports.

2.2 Security

As part of the systems, applications, and tools discovery process a need was identified to address and document system security. The purpose of this section is to provide a high level system security overview; not a security audit. The state of security for each system, application, and tool was found to be closely tied to the size, complexity, and user access of the system/application/tool.

Security system, application, and tools can be categorized into the following groupings:

- Agency-wide institutional systems
- Agency-wide tools
- Intranet applications
- Internet applications
- Word processing applications and spreadsheet applications

Agency-wide institutional systems such as Phoenix, MACS, and NMS A&A have had security evaluations, policies, and procedures in place. These systems have a formally appointed security expert with responsibilities (Information System Security Office). The current internal IRM

process assesses the security posture of a system by considering and grading on the following seven major areas:

- Formal Appointment of Security Role & Responsibilities (ISSO)
- Training (User/ISSO)
- Security Plan
- Contingency Plan
- Certification and Accreditation
- Risk Assessment
- Scan Status (vulnerabilities)

Agency-wide tools, similar to agency-wide institutional systems, have also been reviewed by IRM. Security is one of the major considerations taken when USAID purchased the tool. For example, the ProDoc purchase was approved by the USAID Capital Investment Review Board (CIRB). There is a formal administration guide that includes an installation guide with instructions on configuring security parameters and user profiles. However, the security of ProDoc is impacted by what system it is integrated with and how ProDoc is used. If ProDoc files are transmitted by e-mail as they are between missions and USAID/W, security is dependent on network/e-mail security. In another instance, ProDoc is integrated with NMS A&A, which is a secured agency-wide institutional system.

Intranet applications security is dependent on several factors, such as network security, location/owner of the hardware, and the owner of the application. These applications might not have necessarily gone through the standard IRM security process. However, if the server is hosted/maintained by IRM, the application hardware and operating system are secured and the relevant operating system patches and virus updates are applied. However, this does not insure that additional security processes have been followed such as risk assessment, contingency planning, vulnerability scanning, etc. In addition, application owners might assume that the Intranet is secure. In such cases, the application (Intranet website) might not be password protected because the system intended audience is USAID Intranet users. The assumption here is that only authorized USAID users have access to the USAID Intranet. Often this means that limited security policies and procedures have been applied to the application because it is assumed the Intranet is secure.

Internet security applications have a wide variety of security vulnerabilities. Unlike Intranet applications, the assumption cannot be made that only USAID users have access to the data. The application can be accessed by the general public. The application could specifically be designed for the general public hence it is available on the Intranet. However, security of the hardware (servers) is still crucial. The operating system and virus software need to be maintained and updated. Unlike having IRM host the server, the hosting party or contractor needs an established and documented security policy and procedures.

Word processing applications and spreadsheet applications have limited security. MS Excel spreadsheets, such as AFR Budgeting, are password protected and stored on the USAID shared drive. These applications are dependent on USAID systems security, specifically USAID

network/shared drive and Microsoft password engine. However, an application file can be emailed to anyone, easily replicated and distributed. In addition, versioning control can become difficult and backups are not easily retrieved unless stored on a shared drive which is backed-up regularly.

For ease of use systems/applications/tools have been categorized into three levels of security. These are high level categorizations and are only meant to be indicative of security status as a whole. For example, Crystal Reports has a high level of security when the web-front end is used by authorized USAID Intranet users who have been authenticated with their Intranet username and password. However, if users e-mail the Microsoft Excel report to a contractor over the Internet, the level of security is lower.

It should also be noted that even if there is a high level of security on a system, it does not mean that security should no longer be a concern. System security is an ongoing process and a high level of security does not mean that the system cannot be compromised. Each system, application, and tool has been categorized into a security level category. These categories were assigned by looking at the criteria provided below. One of the following security categories has been assigned to each system:

- High level of Security - Assigned ISSO and conform to IRM security processes and policies.
- Medium level of Security - Simple username/password authentication, maintained within USAID network (behind firewall), and any certifications and accreditations.
- Low level of Security - Limited to no user authentication (username/password), open to the public, and limited controls.

2.3 Scalability

Scalability is the ability to grow a system over a wide capacity range while maintaining a consistent level of performance. Enterprise software systems must be designed to meet growing user and agency demand. This can be done by using programming techniques, network capacity planning, selecting, and using industry field proven operating systems, applications, and the appropriate hardware.

USAID systems such as Phoenix and MACS are scalable due to their design, supporting applications, operating system, and hardware. For example, Phoenix uses large Unix based servers, an Oracle database, and a thick client. The other extreme can be found when using Cuff applications which are based on Microsoft office productivity tools such as Excel.

The AFR Budgeting application is not scalable. This application meets the needs of the Africa Bureau but can not easily be used by USAID to do budgeting. Each bureau and mission can use Microsoft Excel for budgeting. However, it would be difficult to integrate these budgets together. This can only be done by creating a budgeting system with one data source that stores all bureau and missions budget.

Hardware can also be an important factor when looking at scalability. When looking at two similar systems. The system with more processing power and memory can scale better. Less obvious are similar systems with multiple servers. It would be better to have a system with separate web server, application server, and database server than hosting all software on one server.

Additional factors such as system, application, and tool design can also contribute to the level of scalability. For example, tools such as ProDoc are replicated for use. This tool was designed to be integrated with other systems or applications. Hence, ProDoc can be replicated into different systems and applications. In this scenario ProDoc does not have a high level of scalability but is replicable.

For each system, application, and tool scalability has been categorized into three levels of scalability. These levels were determined by following the criteria outlines below. They are:

- High level of Scalability - Enterprise level strength system components such as hardware, applications (components), and operating systems.
- Medium level of Scalability - Replication versus scalability, technical architecture, middle tier components and/or lack of physical separation of components such as database server, web application server, and content server application.
- Low level of Scalability - standalone system, application, or tool, and/or single-tier architecture.

3. Systems, Applications, and Tools

3.1 Phoenix

3.1.1 Overview

The USAID has started the development and use of an Agency-wide integrated core financial system. The Financial Systems Integration (FSI) project acquired and is incrementally implementing American Management Systems (AMS) Momentum Financials software a Commercial Off-the Shelf (COTS) financial management system. This COTS package has been configured for USAID needs and is referred to as Phoenix. Phoenix was designed to be compliant with the requirements issued by Federal Accounting Standards Advisory Board (FASAB), Joint Financial Management Improvement Act (JFMIP) and advancement towards Federal Financial Management Improvement Act (FFMIA).

Phoenix has been rolled out at USAID Washington (USAID/W) headquarters and currently plans are to deploy Phoenix to the Missions. This will be an incremental implementation releases thorough successive phases and product releases. USAID anticipates having three pilot missions complete Phoenix implementation by September 2004. The system is client/server based with a large user community, and interacts with several other USAID systems.

Phoenix is used for processing Agency transactions in the areas of general ledger, budget execution, funds control, accounts payable, disbursements, accounts receivable, loan management, credit, and cost allocation. Phoenix is also being used as the Agency tool for estimating accruals.

3.1.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
Manage General Ledger	Maintain Accounting System Information	3.3.1
Manage General Ledger	Process Transaction	3.3.2
Manage General Ledger	Analyze & Reconcile General Ledger	3.3.3
Manage General Ledger	Generate Financial Reports	3.3.4
Manage Funds	Distribute Budgetary Resources	3.4.1
Manage Funds	Control Funds	3.4.2
Manage Accounts Payable	Manage Accounts Payable Information	3.5.1
Manage Accounts Payable	Record Accounts Payable	3.5.2
Manage Accounts Payable	Execute Payments	3.5.3
Manage Accounts Payable	Confirm Payments	3.5.4
Manage Accounts Payable	Manage Accruals	3.5.5
Manage Accounts Receivable	Establish Accounts Receivable	3.6.1
Manage Accounts Receivable	Service Accounts Receivable	3.6.2

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
Manage Accounts Receivable	Collect Payments	3.6.3
Manage Accounts Receivable	Monitor Accounts Receivable	3.6.4
Manage Cost Accounting	Allocate Costs	3.7.1
Manage Grants	Manage LOC Grants	3.8.1

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
Acquisition and Assistance Planning	General Request	3.3.3
Award Formulation	Execute Award	3.4.8
Award Administration	Administer Award	3.5.1
Award Administration	Monitor Performance	3.5.2
Award Administration	Modify Award	3.5.3
Award Administration	Prepare Novation/Change of Name Agreement	3.5.4
Award Administration	Termination	3.5.5
Award Administration	Claim Dispute Resolution	3.5.6
Award Administration	Close Out Award	3.5.7

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
Formulate Agency Budget	Negotiate ICASS Service	3.4.4
Allocate Funds	Develop Justification	3.6.4
Allocate Funds	Distribute Funds	3.6.5
Allocate Funds	Distribute Operating Year Budget	3.6.6
Allocate Funds	Distribute Allowances	3.6.7
Allocate Funds	Provide Congressional Notification	3.6.7
Execute Agency Budget	Monitor Budget Execution	3.7.1
Execute Agency Budget	Manage ICASS Budget	3.7.2
Execute Agency Budget	Manage Local Currency	3.7.3

Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
Achieve	Monitor Activity Implementation	3.4.4

3.1.3 General Information

Category	Description
Organization Owner	M/FM/CAR
System Manager	M/FM/CAR
Security level	High level of Security
Scalability level	High level of Scalability
Support information	Functional help desk, technical help desk, upgrade and maintenance support teams, 24x7 support by more than 23 staff, SLA in place with target 99% reliability.
CPIC	Yes (Phoenix overseas deployment)
Location Information	Hosted in Washington, D.C.
Deployment Information	Deployed in Washington, D.C. with planned overseas deployment.

3.1.4 User Community

Category	Description
Enterprise User Base Range	101-1000
Domestic User Base Range	101-1000
Overseas User Base Range	0
Long Term User Base Range	1001-3000
Long Term User Goal	Implementation of three overseas pilot missions into production (September 2004).

3.1.5 Data Exchange

Source	Type	Frequency	Description
Riggs (e-Focus)	Input	Monthly	Loan management information.
DHHS (e-Focus)	Input	Monthly	Grant management information.
NMS A&A	Input	Real-time	Procurement changes to vendor files or commitments.
NMS A&A	Output	Batched Hourly	Procurement changes to vendor files or commitments.
Ariba	Input	Real-time	Vendor procurement transaction information.
Ariba	Output	Real-time	Vendor procurement transaction information.
MAL	Input	Batched	Mission data general ledger
MAL	Output	Batch Response	Status

3.1.6 Services

FEA PMO SRM		
Back Office Services	Financial Management	Billing and Accounting
		Credit / Charge
		Expense Management
		Payment / Settlement
		Debt Collection
		Revenue Management
		Financial Reporting
		Budget Execution (USAID extension)

3.1.7 Technologies

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	Desktop Application
	Support	Oracle Client
	Database	N/A
Access & Delivery	Access Channel	URL
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	Privacy Act, 508, Login & Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	Oracle Forms
	Logic	PL*SQL
	Data Management	ODBC
Connectivity	Integration	Tuxedo
	Interoperability	N/A
	Interface	Momentum API

Server		
Platform	Hardware	IBM, RS 6000 S 80
	Operating System	AIX 4.3.3
	Delivery	N/A
	Support	AMS, Momentum Financials, 3.7.4.0
	Database	Oracle 8i v8.1.7.4
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	Privacy Act, 508, Login & Password
Framework	Security	Std Unix Security
	Data Interchange	Phoenix API
	Presentation	Oracle Forms
	Logic	PL*SQL
	Data Management	Net*8
Connectivity	Integration	Tuxedo
	Interoperability	N/A
	Interface	N/A

3.2 MACS

3.2.1 Overview

The MACS is a computer-based accounting and financial management system for field missions worldwide. MACS provides some basic accounting capability for the missions, and provides specific support for Article of Charge (AOC) for USAID/W.

MACS contains programs which maintain data security and recovery, reconcile accounting records for specific periods, archive historical data and meet various other accounting and financial management objectives. MACS is an on-line, interactive, fully integrated processing system in which data is updated continuously as transactions are posted via computer terminal.

MACS also processes the following specialized transactions:

- Project Information (Program/Project Funds Only)
- Conditions Precedent (Program/Project Funds Only)
- Direct Reimbursement Authorization (Program/Project Funds Only)
- Prepayment
- Disbursement from Other Missions
- Disbursement for Other Missions
- Advance

- Advance Liquidation
- Collection – Appropriation Reimbursement

The USAID/W MACS installation is primarily responsible for AOC transactions. An Article of Charge is a special transaction where missions transfer funds to each other. When executing this functionality, USAID/W MACS communicates electronically with the appropriate mission MACS. USAID/W MACS does not act as a central repository for all MACS data.

Currently, MACS is installed at approximately 36 missions and at Washington, D.C. Each mission has its own hardware and support staff depending on mission size. The system was designed to operate on Wang VS or Unix operating systems and is written in COBAL. In general, MACS users are the USAID Controller's accounting and voucher staff, including the MACS site Coordinator, MACS Data Controller, MACS System Administrator, accountants/analysts, data entry personnel, and clerical staff. The above mentioned roles can be combined depending on resource availability at the mission. Smaller missions may not have the resources available to support MACS and use a larger mission as a clearing house. There is also support staff in USAID Washington, D.C. to help troubleshot technical issues.

Comment [I1]:

3.2.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
Mission Accounts Payable	Mission – Maintain Payee Information	3.9.1
Mission Accounts Payable	Mission – Record Transactions	3.9.2
Mission Accounts Payable	Mission – Execute Payment	3.9.3
Mission Accounts Payable	Mission – Confirm Payments	3.9.4
Mission Accounts Payable	Mission – Receive Collections	3.10.2

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
Award Administration	Administer Award	3.5.1
Award Administration	Monitor Performance	3.5.2
Award Administration	Close Out Award	3.5.7

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
Formulate Agency Budget	Negotiate ICASS Service	3.4.4
Allocate Funds	Distribute Funds	3.6.5
Allocate Funds	Distribute Operating Year Budget	3.6.6
Allocate Funds	Distribute Allowances	3.6.7
Allocate Funds	Provide Congressional Notification	3.6.7

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
Execute Agency Budget	Monitor Budget Execution	3.7.1
Execute Agency Budget	Manage ICASS Budget	3.7.2
Execute Agency Budget	Manage Local Currency	3.7.3

Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
Achieve	Monitor Activity Implementation	3.4.4

3.2.3 General Information

Category	Description
Organization Owner	M/FM/CAR
System Manager	M/FM/CAR
Security level	High level of Security
Scalability level	High level of Scalability
Support information	Functional help desk, technical help desk, upgrade and maintenance support team, availability normal business hours and on demand.
CPIC	Yes – being retired by Phoenix Overseas Deployment Project
Location Information	Hosted in Washington, D.C. and 36 Missions overseas.
Deployment Information	Deployed in Washington, D.C. and 36 Missions overseas.

3.2.4 User Community

Category	Description
Enterprise User Base Range	101-1000
Domestic User Base Range	6
Overseas User Base Range	101-1000
Long Term User Base Range	101-1000
Long Term User Goal	Phoenix should ultimately replace MACS.

3.2.5 Data Exchange

Source	Type	Frequency	Description
MAL	Output	Monthly	Transaction Level Data
Treasury Payments	Input	Monthly	
Treasury Payments	Output	varies (sometimes daily)	

3.2.6 Services

FEA PMO SRM		
Back Office Services	Financial Management	Expense Management
		Payment / Settlement

3.2.7 Technologies

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	N/A
	Support	Terminal Emulation
	Database	N/A
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP, FTP
	Requirements	Privacy Act
Framework	Security	Login & Password
	Data Interchange	N/A
	Presentation	N/A
	Logic	N/A
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Server		
Platform	Hardware	Sun, Ultra 60
	Operating System	Sun, Solaris 8.0
	Delivery	N/A
	Support	Terminal Emulation
	Database	ACCU Cobol VSAM
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	Privacy Act
Framework	Security	Login & Password

Server		
	Data Interchange	Flat File
	Presentation	N/A
	Logic	Cobol
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

3.3 MACS Auxiliary Ledger (MAL)

3.3.1 Overview

Historically, USAID M/FM used the U-101 report and a mainframe application named Country Financial Reporting (CFR) system for compiling mission financial information. M/FM created MACS Auxiliary Ledger (MAL) to improve its data gathering effort for mission financial information.

MAL is a custom-developed interface used by USAID for moving mission accounting data contained in MACS to the central accounting data maintained in Phoenix at USAID/W. MAL consists of two distinct components: a) the MAL module within MACS for exporting MACS data, and b) the MAL import application used by USAID/W for importing MACS data into Phoenix.

The MAL module within MACS is an extension to the COBOL application located at 36 missions throughout the world. As part of the normal month end process, the MAL module is executed. This module generates a set of ASCII files that contain the accounting information that is to be forwarded. These files are transmitted to M/FM/CAR via an email attachment.

The MAL import application is used by M/FM/CAR for importing the data into a separate Oracle instance specifically designed for holding MACS data. It consists of a front end application that is used by M/FM/CAR to manage and execute the process and a separate Oracle instance for holding the data. The staging tables in this instance have been designed such that accounting data from all of the missions will reside in the staging area prior to inclusion into Phoenix. When in the staging area, M/FM/CAR can validate data and perform any necessary edits. When validation and edits are complete, M/FM/CAR uses the application to move the data from the MAL staging tables to Phoenix.

3.3.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
Manage General Ledger	Maintain Accounting System Information	3.3.1
Manage General Ledger	Process Transaction	3.3.2
Manage General Ledger	Analyze & Reconcile General Ledger	3.3.3
Manage General Ledger	Generate Financial Reports	3.3.4
Manage Funds	Distribute Budgetary Resources	3.4.1
Manage Funds	Control Funds	3.4.2

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

3.3.3 General Information

Category	Description
Organization Owner	M/FM/CAR
System Manager	M/FM/CAR
Security level	High level of Security
Scalability level	High level of Scalability
Support information	Functional help desk, technical help desk, upgrade and maintenance support team, availability normal business hours and on demand. Level 1 and level 2 support.
CPIC	Yes – being retired by Phoenix Overseas Deployment Project
Location Information	Hosted in Washington, D.C.
Deployment Information	Deployed in Washington, D.C.

3.3.4 User Community

Category	Description
Enterprise User Base Range	11-100
Domestic User Base Range	11-100
Overseas User Base Range	0
Long Term User Base Range	11-100
Long Term User Goal	11-100

3.3.5 Data Exchange

Source	Type	Frequency	Description
MACS	Input	Monthly	Transaction level mission accounting information

3.3.6 Services

FEA PMO SRM		
Back Office Services	Financial Management	Expense Management
		Payment / Settlement

3.3.7 Technologies

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	Intranet
	Support	VB 6
	Database	N/A
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	Privacy Act, Login and Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	Custom UI
	Logic	VB
	Data Management	ODBC
Connectivity	Integration	NET*8
	Interoperability	N/A
	Interface	N/A

Server		
Platform	Hardware	IBM, S80
	Operating System	AIX 4.3.3
	Delivery	N/A
	Support	
	Database	Oracle 9
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP, FTP
	Requirements	Privacy Act, Login and Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	N/A
	Logic	PL*SQL
	Data Management	ODBC
Connectivity	Integration	NET*8
	Interoperability	N/A
	Interface	N/A

3.4 New Management System

3.4.1 Overview

New Management System (NMS) is an integrated suite of custom-built financial and mixed financial applications. NMS was meant for worldwide deployment. However, due to some technical difficulties, NMS has been restricted to Washington, D.C. The initial deployment plan included four distinct applications.

NMS Acquisition and Assistance application (NMS A&A) is the Acquisition and Assistance application used in USAID/W. It is used to create requests for acquisition, assistance and interagency agreement awards and modifications, generate various documents required during the procurement process, record awards, and record receipt and acceptance of deliverables. NMS A&A is used by Bureaus to generate their requests. The Office of Procurement and other obligating officials use it to create awards. A NMS A&A interface has been developed to integrate with Phoenix.

In addition to NMS Phoenix interface, ProDoc has been integrated into NMS A&A for document generation functionality. NMS A&A data is stored in the procurement database and pushed to Phoenix. USAID/W will continue to use NMS A&A until a replacement procurement system is developed. If Phoenix Momentum is upgraded to version 5.0 there is the possibility of using Momentum instead of deploying a new system.

The three remaining MNS applications have been retired.

- AID Worldwide Accounting and Control System (NMS AWACS) – NMS AWACS was the agency general ledger and reporting application.
- Budget (NMS BUD) – NMS BUD was the agency budget distribution and budget execution application.
- Operations (NMS Ops) – NMS Ops was the agency accounting application for strategic objectives.

3.4.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
Manage Accounts Payable	Manage Accounts Payable Information	3.5.1
Manage Accounts Payable	Record Accounts Payable	3.5.2
Manage Accounts Payable	Manage Accruals	3.5.5
Manage Cost Accounting	Allocate Costs	3.7.1

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
Acquisition and Assistance Planning	General Request	3.3.3
Award Formulation	Route Action to Appropriate Process	3.4.1
Award Formulation	OSDBU	3.4.2
Award Formulation	Prepare Solicitation or Grant Scope	3.4.4
Award Formulation	Solicit Response	3.4.5
Award Formulation	Evaluation Reponses	3.4.6
Award Formulation	Conduct Negotiation	3.4.7
Award Formulation	Execute Award	3.4.8
Award Formulation	Manage Protest	3.4.9
Award Administration	Administer Award	3.5.1
Award Administration	Monitor Performance	3.5.2
Award Administration	Modify Award	3.5.3
Award Administration	Prepare Novation/Change of Name Agreement	3.5.4
Award Administration	Termination	3.5.5
Award Administration	Claim Dispute Resolution	3.5.6
Award Administration	Close Out Award	3.5.7

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Acquisition and Assistance Support	Audit Support of Responsibility Determination	3.6.1
Acquisition and Assistance Support	Audit Support of Cost/Price Analysis	3.6.2
Acquisition and Assistance Support	Monitor Annual Audit Requirement	3.6.3
Acquisition and Assistance Support	Manage Annual Audits	3.6.4
Acquisition and Assistance Support	Audit Support for Other Issues	3.6.5
Acquisition and Assistance Support	Finalize NICRA	3.6.6
Acquisition and Assistance Support	Provide Support by OP/E	3.6.8
Acquisition and Assistance Support	Performa Systems Review by OP/E	3.6.10

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
Achieve	Draft and Execute Procurement Documents	3.4.2

3.4.3 General Information

Category	Description
Organization Owner	M/OP
System Manager	IRM
Security level	High level of Security
Scalability level	High level of Scalability
Support information	Functional help desk and technical help desk.
CPIC	Yes – PSIP Project
Location Information	Deployed in Washington, D.C.
Deployment Information	Hosted in Washington, D.C.

3.4.4 User Community

Category	Description
Enterprise User Base Range	101-1000
Domestic User Base Range	101-1000
Overseas User Base Range	0
Long Term User Base Range	101-1000
Long Term User Goal	Retire system if Phoenix/Momentum is upgraded to version 5.0 and takes on NMS functionality.

3.4.5 Data Exchange

Source	Type	Frequency	Description
Phoenix	Output	Daily	Acquisition and Assistance data
Phoenix	Input	Daily	Acquisition and Assistance data

3.4.6 Services

FEA PMO SRM		
Business Management Services	Third Party Services	Solicitation Development (USAID Extension)
		Offering Response Management (USAID Extension)
		Award Management (USAID Extension)
		Dispute Resolution (USAID Extension)
		Performance Management (USAID Extension)

3.4.7 Technology

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	Intranet
	Support	VB 6, ProDoc
	Database	N/A
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	Privacy Act, Login and Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	Custom UI

Client		
	Logic	VB
	Data Management	ODBC
Connectivity	Integration	NET*8
	Interoperability	N/A
	Interface	N/A

Server		
Platform	Hardware	Sun
	Operating System	Sun, Solaris
	Delivery	N/A
	Support	
	Database	Oracle
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP, FTP
	Requirements	Privacy Act, Login and Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	N/A
	Logic	PL*SQL
	Data Management	ODBC
Connectivity	Integration	NET*8
	Interoperability	N/A
	Interface	N/A

3.5 Documentum

3.5.1 Overview

Documentum is a COTS package for Enterprise Content Management (ECM). It has integrated vertical applications such as eRoom, ACTS, E-mail Tracking, Assist, and Collaboration. Functionality includes workflow, library (check -in, check-out), imaging and scanning, content flow, and correspondence tracking (e-mail). Documentum is used by Office of Procurement for document archiving and scanning legal documents.

IRM centrally administers Documentum application server in Washington, D.C. Clients such as Administrators office use specific application in the Documentum suite such as E-mail Tracking. IRM completed the installation, configuration, maintenance, and support for the E-mail Tracking

application at the Administrators office. Documentum Assist is also being used at USAID for voucher imaging with MACS data in XML.

Currently, IRM Washington has 600 available Documentum user licenses. In addition, approximately 300 licenses are available for the Missions. Missions are responsible for purchasing their own licenses. However, IRM Washington, D.C. provides the Missions with the software and provides guidance for the installation, configuration, and maintenance of Documentum.

3.5.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
Award Administration	Administer Award	3.5.1
Award Administration	Prepare Novation/Change of Name Agreement	3.5.4
Award Administration	Claim Dispute Resolution	3.5.6
Award Administration	Close Out Award	3.5.7
Acquisition and Assistance Support	Audit Support of Responsibility Determination	3.6.1
Acquisition and Assistance Support	Audit Support of Cost/Price Analysis	3.6.2
Acquisition and Assistance Support	Monitor Annual Audit Requirement	3.6.3

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
Achieve	**Draft and Execute Procurement Documents**	**3.4.2**

3.5.3 General Information

Category	Description
Organization Owner	IRM
System Manager	Dependent on which instillation.
Security level	High level of Security
Scalability level	High level of Scalability
Support information	Functional help desk, technical help desk, upgrade and maintenance support team.
CPIC	No – Multipurpose Application/Tool
Location Information	Hosted in Washington, D.C. and Missions
Deployment Information	Deployed in Washington, D.C. and Missions

3.5.4 User Community

Category	Description
Enterprise User Base Range	101-1000
Domestic User Base Range	101-1000
Overseas User Base Range	101-1000
Long Term User Base Range	101-1000
Long Term User Goal	101-1000

3.5.5 Data Exchange

Source	Type	Frequency	Description
Dependent on which installation.			

3.5.6 Services

FEA PMO SRM		
Business Management Services	Third Party Services	Solicitation Development (USAID Extension)
		Award Management (USAID Extension)
		Performance Management (USAID Extension)
Digital Asset Services	Document Management	Document Imaging and OCR
		Document Revisions
		Library / Storage
		Document Review and Approval
Support Services	Collaboration	Document Library

3.5.7 Technology

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	N/A
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	I.E, Netscape
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	508, Login and Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	JSP
	Logic	JAVA
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Web Server		
Platform	Hardware	Intel (Compaq
	Operating System	NT 4.0
	Delivery	MS IIS
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	N/A
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	JSP, HTML, DHTML
	Logic	N/A
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Application Server		
Platform	Hardware	Intel (Compaq)
	Operating System	MS NT 4.0
	Delivery	JRun 4.0
	Support	Documentum, J2EE
	Database	N/A
Access & Delivery	Access Channel	Web Service
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	Login and Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	N/A
	Logic	JAVA, Documentum API,
	Data Management	JDBC
Connectivity	Integration	NET*8
	Interoperability	N/A
	Interface	N/A

Database Server		
Platform	Hardware	IBM, RS 6000 S80
	Operating System	AIX 4.3.3
	Delivery	N/A
	Support	N/A
	Database	Oracle, 8I
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	Password and Login
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	N/A
	Logic	PL*SQL
	Data Management	N/A
Connectivity	Integration	NET*8
	Interoperability	N/A
	Interface	N/A

3.6 Crystal Report

3.6.1 Overview

Crystal Report is a web-based tool for ad-hoc reporting and analysis. Crystal Report functionality includes: wizard based querying, SQL statement querying, and exporting capabilities (PDF, Microsoft Excel, Microsoft Word, and XML). USAID including the HIV/AIDS Program use Crystal Report for financial analysis and reporting.

Developers have the ability to create high frequency reports for USAID users. These reports can then be accessed by any user who logs on to the Crystal Enterprise website. Most USAID staff are automatically authorized Crystal Enterprise users with their network user name and password. Users can then access reports through a user friendly menu system with folders. In addition, they can schedule reports by setting report parameters. For example, users can select consolidated reports showing pipeline data associated with both Phoenix obligations and MACS obligations (as captured by MAL). This specific report can be created at a selected organization level (Agency, Bureau, Operating Unit, and Strategic Objective) and as of a particular fiscal year and month. Once the report is scheduled and completed users can drill down into the report, print, zoom in or out, search, and save it in a variety of file formats such as Microsoft Excel.

3.6.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
Manage General Ledger	Generate Financial Reports	3.3.4

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
Acquisition and Assistance Support	Monitor Annual Audit Requirement	3.6.3
Acquisition and Assistance Support	Manage Annual Audits	3.6.4
Acquisition and Assistance Support	Audit Support for Other Issues	3.6.5
Acquisition and Assistance Support	Finalize NICRA	3.6.6
Acquisition and Assistance Support	Provide Support by OP/E	3.6.8
Acquisition and Assistance Support	Performa Systems Review by OP/E	3.6.10

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		
Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

3.6.3 General Information

Category	Description
Organization Owner	IRM
System Manager	Dependent on which instillation.
Security level	Medium level of Security
Scalability level	Medium level of Scalability
Support information	Limited help desk support, one resource for maintenance and upgrades.
CPIC	No - Tool
Location Information	Hosted in Washington, D.C.
Deployment Information	Deployed Agency Wide.

3.6.4 User Community

Category	Description
Enterprise User Base Range	101-1000
Domestic User Base Range	101-1000
Overseas User Base Range	0
Long Term User Base Range	101-1000
Long Term User Goal	101-1000

3.6.5 Data Exchange

Source	Type	Frequency	Description
Financial Data	Output	Ad-Hoc	Financial data from Phoenix is extracted and placed in a report format defined by the tool.
RTP file	Input	Ad-Hoc	RTP is a report definition file generated by Crystal Reports and used by Crystal Enterprise.
Documentum data	Output	Ad-Hoc	Data is extracted from Documentum according to the report format

3.6.6 Services

FEA PMO SRM		
Back Office Services	Financial Management	Auditing
		Financial Reporting
Business Management Services	Third Party Services	Performance Management (USAID Extension)

3.6.7 Technology

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	N/A
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	IE, Netscape
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	Windows Domain Login & Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	HTML
	Logic	N/A
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Application Server		
Platform	Hardware	Intel (Compaq ProLiant 350)
	Operating System	Windows 2000
	Delivery	IIS, Crystal Enterprise Server
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	Web Services
	Delivery	Intranet
	Transport	TCP/IP, HTTP, Active Directory
	Requirements	N/A

Application Server		
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	CSP
	Logic	CSP
	Data Management	JDBC, ODBC
Connectivity	Integration	NET*8
	Interoperability	N/A
	Interface	N/A

Note that the servers to which Crystal Enterprise interacts are documented elsewhere. They can be found in the corresponding sections (3.1 for Phoenix and 3.5 for Documentum)

3.7 ProDoc

3.7.1 Overview

The Professional Document System (ProDoc) is an electronic document generation tool. It is a commercial off-the-shelf software system. ProDoc can be setup as Client/Server, Client Only, and standalone configuration. It was specifically purchased to minimize the time spent to generate solicitations and award documents. In addition, it is being used to assists in the standardization of procurement documents. ProDoc also allows for open exchange of information with external word processors and web applications.

ProDoc is being used in a "standalone" capacity at USAID missions. ProDoc mission users are required to transmit procurement data to USAID/W in the first week of every month. This is done by selecting to create an export file in the ProDoc menu structure. The user can then FTP the file to USAID/W procurement. ProDoc guarantees compliance with the FAR, the ITMRA/FASA/FARA policies, as well as agency-specific regulations.

USAID has also integrated ProDoc in a "client only" capacity with NMS A&A. application. Similar to ProDoc mission usage, ProDoc A&A assist in the standardization and generation of documents. ProDoc A&A users log in to the Document desktop (client) which provides a unique list of all documents available for that specific user. This menu driven desktop provides status on the user's document and access to Document desktop commands. For example, users can print, copy, delete, and edit documents. In addition, users can create new documents and send documents as an e-mail attachment. The most common types of documents utilized at USAID are: solicitation, contract, Amendment, Modification, RFQ, PO, and DO. Documents are placed in a class according to where the document is in the procurement phase such as planning, funding, procurement, award, post award, and other.

ProDoc users can apply word processor commands to access a third party application such as Microsoft Word to modify highlighted text segments. In addition, a clause library can be

accessed to insert text. Documents can also be exported in a ProDoc format for transferring documents between computers and laptops.

3.7.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
Award Formulation	Advertise Action	3.4.3
Award Formulation	Advertise Action	3.4.4
Award Formulation	Solicit Response	3.4.5
Award Formulation	Conduct Negotiation	3.4.7
Award Formulation	Manage Protest	3.4.9
Award Administration	Administer Award	3.5.1
Award Administration	Monitor Performance	3.5.2
Award Administration	Modify Award	3.5.3
Award Administration	Prepare Novation/Change of Name Agreement	3.5.4
Award Administration	Termination	3.5.5
Award Administration	Claim Dispute Resolution	3.5.6
Acquisition and Assistance Support	Audit Support of Responsibility Determination	3.6.1
Acquisition and Assistance Support	Audit Support of Cost/Price Analysis	3.6.2
Acquisition and Assistance Support	Monitor Annual Audit Requirement	3.6.3
Acquisition and Assistance Support	Manage Annual Audits	3.6.4
Acquisition and Assistance Support	Audit Support for Other Issues	3.6.5

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
Achieve	Draft and Execute Procurement Documents	3.4.2

3.7.3 General Information

Category	Description
Organization Owner	IRM
System Manager	M/OP/PS
Security level	High level of Security (ProDoc/MNS)
Scalability level	Medium level of Scalability
Support information	Limited help desk functionality.
CPIC	USAID Capital Investment Review Board (CIRB) approval (06/22/2000)
Location Information	Hosted in Washington, D.C.
Deployment Information	Deployed in Washington, D.C.

3.7.4 User Community

Category	Description
Enterprise User Base Range	101-1000 (ProDoc/NMS)
Domestic User Base Range	101-1000 (ProDoc/NMS)
Overseas User Base Range	0
Long Term User Base Range	101-1000 (ProDoc/NMS)
Long Term User Goal	Retire system if Phoenix/Momentum is upgraded to version 5.0 and takes on NMS functionality (ProDoc/NMS only)

3.7.5 Data Exchange

Source	Type	Frequency	Description
Manual Data Entry	Input	Quarterly	Overseas OP information (after the fact)
NMS A&A	Output	Quarterly	Overseas OP information (after the fact)

3.7.6 Services

FEA PMO SRM		
Business Management Services	Third Party Services	Performance Management (USAID Extension)
Back Office Services	Financial Management	Auditing

3.7.7 Technology

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	N/A
	Support	VB6
	Database	N/A
Access & Delivery	Access Channel	Client-Server
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	Login & Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	Custom VB6
	Logic	VB6
	Data Management	N/A
Connectivity	Integration	Pervasive.SQL
	Interoperability	N/A
	Interface	N/A

Server		
Platform	Hardware	Unknown
	Operating System	Windows NT 4.0, SP6
	Delivery	N/A
	Support	N/A
	Database	Pervasive.SQL
Access & Delivery	Access Channel	Client-Server
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	Login & Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	Custom
	Logic	VB6
	Data Management	Pervasive.SQL

Server		
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

The above technical specifications are for a fictitious client/server configuration.

3.8 Annual Report Database

3.8.1 Overview

Annual Report Database is an agency wide database that is used by OHA to report on operating units activities. OHA collects both narrative and indicator results information such as baseline, targets and actuals from the operating units and enters this data into the Annual Report Database. This data is used as source material when planning future activities.

3.8.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
Prepare Budget Guidance	Determine Budget Guidance	3.3.1
Prepare Budget Guidance	Establish New Account	3.3.2
Prepare Budget Guidance	Review Budget Guidance	3.3.3
Prepare Budget Guidance	Release Budget Guidance	3.3.5
Formulate Agency Budget	Determine Activity Budget	3.4.1
Formulate Agency Budget	Negotiate Budget	3.4.2

Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
Assess & Learn	Prepare Annual Report	3.5.3

3.8.3 General Information

Category	Description
Organization Owner	PPC/SPP
System Manager	CDIE/DI/DEC
Security information	Medium level of Security
Scalability information	Medium level of Scalability
Support information	Limited functional help desk, technical help desk, upgrade and maintenance support.
CPIC	No
Location Information	Hosted in Silver Springs, MD at contractor. LTS hosting and maintaining system.
Deployment Information	Deployed in Washington, D.C and Missions.

3.8.4 User Community

Category	Description
Enterprise User Base Range	101-1000
Domestic User Base Range	101-1000
Overseas User Base Range	101-1000 (approximately 5 or 6 per mission)
Long Term User Base Range	101-1000
Long Term User Goal	101-1000

3.8.5 Data Exchange

Source	Type	Frequency	Description
Phoenix	Input	Annually	program obligations, expenditures, and OE (operating expenses)

3.8.6 Services

FEA PMO SRM		
Business Management Services	Third Party Services	Performance Management (USAID Extension)
Back Office Services	Financial Management	Auditing

3.8.7 Technology

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	N/A
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	Client-Server
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	Login & Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	Custom
	Logic	Delphi
	Data Management	ODBC
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Server		
Platform	Hardware	Intel (Dell Power Edge 2650)
	Operating System	Windows 2000
	Delivery	N/A
	Support	N/A
	Database	SQL Server
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	N/A
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	N/A
	Logic	N/A
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

3.9 Field Support Database

3.9.1 Overview

The Field Support Database (FSD) is used by Bureau for Global Health to access and manage field support funds. Missions have the ability to enter their field support fund data into the FSD web-based front-end.

The FSD was initially designed in 1998 as a short-term remedy to USAID's need to gather and track field support (FS) and Modified Acquisition and Assistance Request Document (MAARD) funding data. The Financial Tracking System (FTS), then under construction, was intended to perform the FSD's functions, but only for the population, health, and nutrition (PHN) sector. The FSD was designed and built using MS Access 97 software to serve the entire Agency, not just the PHN sector.

By fiscal year 2002, FTS needed to be linked with the FSD so that FTS users could get more comprehensive images of financial statuses and transactions. With FTS Release 2.5 in June 2002, planned FS funding levels for PHN entered into the FSD appeared in FTS screens and reports. FTS users could also record processing and obligation transactions of FS funds in FTS and have these appear in the FSD.

In spring 2003, the FTS and FSD databases were merged. Separate front ends were created. This allows the Bureau for Global Health to access and manage FS funds in real time from the FTS application. A Web front end named FSD GH was developed for the Missions, which allowed them, to enter data in a timely manner as well as run reports on their own information, thus giving them a greater stake in the system, reducing ad hoc requests to GH program staff, and improving the information obtained for the FSD and FTS systems. Since the FSD needed to be maintained for the non-GH bureaus within the Agency, a Web front end called FSD NGH was created to allow the non-global health sector to view, manage, and report on its FS and MAARD funds.

3.9.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
Execute Agency Budget	Monitor Budget Execution	3.7.1
Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
Achieve	Monitor Activity Implementation	3.4.4
Assess & Learn	Prepare Annual Report	3.5.3

3.9.3 General Information

Category	Description
Organization Owner	GH/RCS
System Manager	PHNI
Security level	Medium level of Security
Scalability level	Medium level of Scalability
Support information	Functional help desk, technical help desk, upgrade and maintenance support team provided by PHNI Project.
CPIC	No
Location Information	Located in Washington, D.C.
Deployment Information	Deployed domestically and overseas. (GH Budget Office, Pillar & Regional Bureaus)

3.9.4 User Community

Category	Description
Enterprise User Base Range	11-100
Domestic User Base Range	11-100
Overseas User Base Range	11-100 (approximately 1 or more person for each Mission)
Long Term User Base Range	11-100
Long Term User Goal	11-100

3.9.5 Data Exchange

Source	Type	Frequency	Description
NTRRB0050	Input	Annually	Field Support (FS) and Modified Acquisition and Assistance Request Document (MAARD) funding data
SQL Server, Web Browser	Output	Daily	Various Funding Reports

3.9.6 Services

FEA PMO SRM		
Back Office Services	Financial Management	Budget Execution
Business Management Services	Investment Management	Budgeting

3.9.7 Technology

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	N/A
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	IE, Netscape
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	Login & Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	HTML, ASP
	Logic	ASP
	Data Management	N/A
Connectivity	Integration	COM/DCOM
	Interoperability	N/A
	Interface	N/A

Server		
Platform	Hardware	Intel (Compaq ProLient ML 370)
	Operating System	Windows 2000
	Delivery	IIS
	Support	N/A
	Database	SQL Server 2000
Access & Delivery	Access Channel	Web Services
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	Section 508, Login & Password

Server		
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	ASP
	Logic	ASP
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	COM/DCOM
	Interface	N/A

3.10 E-Focus

3.10.1 Overview

e-Focus is a manual data entry web-based system to update accruals and crosswalks. The system is used by USAID contracting officers to update quarterly accruals. The system is split into these distinct two parts and is often referred to as just accruals (ARS) or crosswalk.

3.10.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
Manage General Ledger	Process Transaction	3.3.2
Manage General Ledger	Analyze & Reconcile General Ledger	3.3.3
Manage General Ledger	Generate Financial Reports	3.3.4
Manage Accounts Payable	Manage Accruals	3.5.5

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

3.10.3 General Information

Category	Description
Organization Owner	M/FM/CAR
System Manager	M/FM/CAR
Security level	Medium level of Security
Scalability level	Medium level of Scalability
Support information	Large functional help desk, technical help desk, upgrade and maintenance support teams provided by contractors and USAID.
CPIC	No
Location Information	System is located in Washington, D.C.
Deployment Information	System deployed Agency wide (domestic)

3.10.4 User Community

Category	Description
Enterprise User Base Range	11-100
Domestic User Base Range	11-100
Overseas User Base Range	0
Long Term User Base Range	101-1000
Long Term User Goal	No planned long terms but would like to look into possibility of deploying to Missions.

3.10.5 Data Exchange

Source	Type	Frequency	Description
Input	Web Browser	Quarterly	Accruals and Crosswalk updates

3.10.6 Services

FEA PMO SRM		
Back Office Services	Financial Management	Billing and Accounting
		Expense Management
		Payment / Settlement
		Debt Collection
		Revenue Management

3.10.7 Technology

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	N/A
	Support	Java
	Database	N/A
Access & Delivery	Access Channel	IE, Netscape
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	N/A
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	HTML, ASP
	Logic	JAVA
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Server		
Platform	Hardware	Intel (Compaq)
	Operating System	Windows NT4 (Windows 2000 by end of CY03)
	Delivery	IIS
	Support	J2EE
	Database	Oracle
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	Section 508, Login & Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	ASP
	Logic	JAVA, ASP
	Data Management	JDBC

Server		
Connectivity	Integration	Net*8
	Interoperability	N/A
	Interface	N/A

3.11 Global Health Expenditure Database

3.11.1 Overview

The Global Health Expenditures Database (GHED) is a web-based application designed to collect expenditures data. GHED is used by USAID Missions and CAs for PHNI and USAID reporting. The system has increased the efficiency of data collection and improved the Agency's ability to enforce business rules in reporting.

The predecessor of GHED was the Population, Health and Nutrition (PHN) Projects Database (PPD), which was used to record expenditure data gathered manually from the Missions and CAs. PPD was expanded to include limited expenditure data on health and nutrition projects. For the 2002 expenditure data collection, the PPD (renamed GHED), was automated and Web-enabled to make reporting easier for CAs and Missions. GHED incorporates data validation measures in order to improve the value of the data collected. Administrative functionality was also added. This makes data collection more efficient for PHNI, improves the Agency's ability to enforce business rules, and provides a consistent and accurate tool for reporting. In conjunction with the data collection changes, the basic database structure has been redesigned and built using SQL Server and ASP.

3.11.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
Execute Agency Budget	Monitor Budget Execution	3.7.1

Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
Achieve	Monitor Activity Implementation	3.4.4

3.11.3 General Information

Category	Description
Organization Owner	GH/POP
System Manager	PHNI
Security level	Medium level of Security
Scalability level	Medium level of Scalability
Support information	Functional help desk, technical help desk, upgrade and maintenance support team provided by PHNI Project.
CPIC	No
Location Information	System is located at PHNI in Washington, D.C.
Deployment Information	Deployed Washington, D.C. and Missions (Internet)

3.11.4 User Community

Category	Description
Enterprise User Base Range	101-1000
Domestic User Base Range	101-1000 (all GH CA's)
Overseas User Base Range	10-101 (at least one person at each mission)
Long Term User Base Range	101-1000
Long Term User Goal	101-1000

3.11.5 Data Exchange

Source	Type	Frequency	Description
Web Browser, SQL Server	Input	Annually	Mission and CA expenditure information
SQL Server, Web Browser	Output	Daily	Various Funding Reports

3.11.6 Services

FEA PMO SRM		
Back Office Services	Financial Management	Expense Management
		Financial Reporting
		Budget Execution

3.11.7 Technology

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	N/A
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	I.E, Netscape
	Delivery	Internet
	Transport	TCP/IP, HTTP
	Requirements	508, Login and Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	HTML, DHTML, ASP
	Logic	DCOM
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Web Server		
Platform	Hardware	Intel (Compaq, ProLiant DL380 G2)
	Operating System	Windows 2000
	Delivery	MS IIS
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	N/A
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	HTML, DHTML, ASP, DCOM
	Logic	N/A
	Data Management	N/A

Web Server		
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Database Server		
Platform	Hardware	Intel (Compaq, ProLiant DL380 G2)
	Operating System	Windows 2000
	Delivery	N/A
	Support	N/A
	Database	SQL Server
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	Password and Login
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	N/A
	Logic	SQL
	Data Management	N/A
Connectivity	Integration	ODBC
	Interoperability	N/A
	Interface	N/A

3.12 Online Presidential Initiative Network

3.12.1 Overview

The Online Presidential Initiative Network is a web-based system which currently tracks the progress of 14 Presidential Initiative for sustainable development. The system is used by USAID, United States State Department, and NSC for tracking. The website went live March 2003 and can be found at http://www.dec.org/partners/opin. The website contains detailed list of Presidential Initiatives, maps of the countries affected by the initiatives, selected indicators, and definitions used to measure progress.

The system was designed as a web-based data collection tool for tracking initiatives on a quarterly basis. It is managed by USAID and allows approximately 200 field based users to input data. These users use a set of established indicators and common definitions to report on inputs, outputs, and results associated with the initiatives. In addition, USAID has an initiative owner or technical specialist tracking each initiative for quality control.

3.12.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
Achieve	Monitor Activity Implementation	3.4.4
Assess & Learn	Review Portfolio	3.5.1

3.12.3 General Information

Category	Description
Organization Owner	USAID Development Experience Clearinghouse (DEC)
System Manager	USAID Development Experience Clearinghouse (DEC)
Security level	Low level of Security
Scalability level	Medium level of Scalability
Support information	None available
CPIC	No
Location Information	Located at Development Experience Clearinghouse (DEC)
Deployment Information	Deployed domestic and overseas (internet)

3.12.4 User Community

Category	Description
Enterprise User Base Range	101-1000
Domestic User Base Range	101-1000
Overseas User Base Range	101-1000
Long Term User Base Range	101-1000
Long Term User Goal	101-1000

3.12.5 Data Exchange

Source	Type	Frequency	Description
Manual data entry by subject matter expert into OPIN.	Input – web interface	Bi-annually	Three types indicator data (inputs – money obligated, outputs – item bought, results – effect/impact)
OPIN	Output	Annually	Printed document/report for Administrator with status of initiatives.

3.12.6 Services

FEA PMO SRM		
Business Management Services	Investment Management	Strategic Planning and Management
Digital Asset Services	Knowledge Management	Information Sharing
		Knowledge Distribution and Delivery
Business Analytic Services	Business Intelligence	Decision Support and Planning

3.12.7 Technology

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	N/A
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	I.E, Netscape
	Delivery	Internet
	Transport	TCP/IP, HTTP
	Requirements	508, Login and Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	HTML, DHTML
	Logic	CFML
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Web Server		
Platform	Hardware	Intel (Dell, PowerEdge)
	Operating System	Windows 2000
	Delivery	MS IIS
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	N/A
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	HTML, DHTML, CFML
	Logic	N/A
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Application Server		
Platform	Hardware	Intel (Dell, PowerEdge)
	Operating System	Windows 2000
	Delivery	N/A
	Support	Marcromedia, Cold Fusion
	Database	N/A
Access & Delivery	Access Channel	Web Service
	Delivery	Intranet
	Transport	TCP/IP, HTTP, CFML
	Requirements	Login and Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	N/A
	Logic	CFML
	Data Management	JDBC
Connectivity	Integration	ODBC
	Interoperability	N/A
	Interface	N/A

Database Server		
Platform	Hardware	Intel (Dell, PowerEdge)
	Operating System	Windows 2000
	Delivery	N/A
	Support	N/A
	Database	SQL Server
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	Password and Login
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	N/A
	Logic	SQL
	Data Management	N/A
Connectivity	Integration	ODBC
	Interoperability	N/A
	Interface	N/A

3.13 Red Light Green Light

3.13.1 Overview

Red Light Green Light is a web-based system used by PPC for tracking high level field funds from appropriation to obligation. USAID identified a need to have a high level overview of funds given to the field. Red Light Green Light provides similar functionality as an executive information system. Users can see a dollar value of the funds associated with a country. There is a red light or green light indicator next to each country. If funds are not obligated within a specified period of time the status of that country is listed as red.

The source of the Red Light Green Light system data is Phoenix and MACS. The data is imported into Microsoft Access database. The administrator of Red Light Green Light reviews the data for accuracy. Accuracy is verified by comparing the data in Phoenix and calling missions if necessary. The administrator can correct and edit any mistakes and modify the country status on an Ad-Hoc basis. Once the data has been reviewed, it is imported into the Red Light Green Light web database which makes it available on the Intranet.

3.13.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
Achieve	Monitor Activity Implementation	3.4.4

3.13.3 General Information

Category	Description
Organization Owner	PPC/P
System Manager	PPC/P
Security level	Medium level of Security
Scalability level	Medium level of Scalability
Support information	No support available.
CPIC	No
Location Information	Located in Washington, D.C.
Deployment Information	Deployed Washington, D.C. and Missions.

3.13.4 User Community

Category	Description
Enterprise User Base Range	1-10
Domestic User Base Range	1-10
Overseas User Base Range	1-10
Long Term User Base Range	1-10
Long Term User Goal	1-10

3.13.5 Data Exchange

Source	Type	Frequency	Description
Phoenix	Input	Ad-Hoc, usually monthly but more often in end of fiscal year	allowances and obligations
MACS (thought Phoenix)	Input	Ad-Hoc, usually monthly but more often in end of fiscal year	allowances and obligations
Manual Data Entry (call Missions for information requesting spreadsheet)	Input	Ad-Hoc, usually monthly but more often in end of fiscal year	allowances and obligations

3.13.6 Services

FEA PMO SRM		
Back Office Services	Financial Management	Budget Execution

3.13.7 Technology

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	N/A
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	I.E, Netscape
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	508, Login and Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	CFML
	Logic	JAVA
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Web Server		
Platform	Hardware	Intel (Compaq)
	Operating System	Windows 2000
	Delivery	Apache
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	N/A
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	HTML, DHTML, CFML
	Logic	N/A
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Application Server		
Platform	Hardware	Intel (Compaq)
	Operating System	Windows 2000
	Delivery	N/A
	Support	Macromedia Cold Fusion
	Database	N/A
Access & Delivery	Access Channel	Web Service
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	Login and Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	N/A
	Logic	CFML
	Data Management	JDBC
Connectivity	Integration	ODBC
	Interoperability	N/A
	Interface	N/A

Database Server		
Platform	Hardware	Intel (Compaq)
	Operating System	Windows 2000
	Delivery	N/A
	Support	N/A
	Database	Sybase
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	Password and Login
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	N/A
	Logic	SQL
	Data Management	N/A
Connectivity	Integration	ODBC
	Interoperability	N/A
	Interface	N/A

3.14 Training Results and Information Network

3.14.1 Overview

Training Results and Information Network (TraiNet) is a federated desktop application used by USAID, Missions and partner organizations for capturing information about training events and trainees. Each desktop client can exchange information with other clients and a central data repository in Chantilly, VA.

TraiNet is the Agency-wide database training management system, jointly supported by G/HCD and the Bureau for Management, Office of Information Resource Management, Division of Software Development Maintenance (M/IRM/SDM). TraiNet is used by USAID offices and partner organizations. USAID and their partner organizations record and report information on globally hosted training classes and the individual trainees.
Missions, contractors, grantees and recipients of cooperative agreements use TraiNet to record the training events that they administer. The application supports a variety of training events. These events may be customized curricula or set courses which have been advertised and published. In addition, data gathering requirements can also vary depending on event location. Events which are hosted in a local country and have local participants only require general or overview event information and the number of participants. Events which require travel (participant location and host country differ) require detailed biographical information on each trainee. This is due to the travel needs of the participants and Visa compliance.

The TraiNet application is freely distributed. The client requires a local Microsoft Access database. Client data is then communicated back to the central data repository in Chantilly, VA through the Internet. Last year, data on more than 400,000 participants was recorded and reported using TraiNet.

3.14.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

3.14.3 General Information

Category	Description
Organization Owner	USAID/EGAT/ED/TR
System Manager	USAID/EGAT/ED/TR
Security level	Medium level of Security
Scalability level	High level of Scalability
Support information	Full help desk support by DevIS (contracting firm). first-tier, second-tier, and third-tier who are called in as needed for specific technical issues.
CPIC	No
Location Information	The system is installed on desktops in Missions and partner offices around the world. Central repository is physically located in Chantilly, VA.
Deployment Information Deployed	Deployed in Washington, D.C., Missions, and Partners.

3.14.4 User Community

Category	Description
Enterprise User Base Range	101-1000
Domestic User Base Range	101-1000
Overseas User Base Range	101-1000
Long Term User Base Range	Unknown dependent on training needs.
Long Term User Goal	Unknown dependent on training needs.

3.14.5 Data Exchange

Source	Type	Frequency	Description
Manual Data Entry	Input	As Needed	Dates of training, field of study, budget amounts, trainee biodata, trainee passport and visa information, USAID Organization sponsoring training, Strategic Objective sponsoring training
TraiNet	Output	As Needed	Dates of training, field of study, budget amounts, trainee biodata, trainee passport and visa information, USAID Organization sponsoring training, Strategic Objective sponsoring training
Visa Compliance System (VCS)	Output	Hourly	Dates of training, field of study, budget amounts, trainee biodata, trainee passport and visa information necessary to further interface with DHS SEVIS system

3.14.6 Services

FEA PMO SRM		
Back Office Services	Human Resources	Education / Training

3.14.7 Technology

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	Desktop Application
	Support	MS Access 2000
	Database	N/A
Access & Delivery	Access Channel	URL

Client		
	Delivery	Internet
	Transport	TCP/IP
	Requirements	508, Login & Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	MS Access 2000
	Logic	PostgreSQL
	Data Management	ODBC
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	Postgress API

Server		
Platform	Hardware	Intel
	Operating System	Windows 2000
	Delivery	N/A
	Support	PostgreSQL
	Database	MS Access 2000
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	508, Login & Password
Framework	Security	Std Windows 2000
	Data Interchange	N/A
	Presentation	N/A
	Logic	Postgress SQL 7.2.1
	Data Management	ODBC
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

3.15 Data Online for Population, Health and Nutrition

3.15.1 Overview

The Data Online for Population, Health and Nutrition (DOLPHN) system is an online statistical data resource containing selected current and historical country-level demographic and health indicator data. It is used by USAIDs Bureau for Global Health (GH) for reference data on

country specific population and health statistics. The DOLPHN system is designed to provide users with quick and easy access to frequently used statistics and can be helpful as both a reference and analytical tool.

The current DOLPHN system is the result of merging two applications with extensive histories into a single application. The PHNI statistics database, inherited from the PHNI predecessor project and consisting of approximately 120,000 records on national-level population and health statistics, was used internally by project analysts and was not directly accessible to USAID or other potential stakeholders. The second application, also inherited from the PHNI predecessor, was a data-viewing application originally called Global Health Data Viewer and then renamed DOLPHN in 1998. This was a stand-alone application, downloadable from a Web site that provided a subset of frequently used population and health statistics with a variety of special grouping and graphing functions.

DOLPHN now is a web based system that allows customized searches for multiple indicators, year ranges, and countries on the most recently published data. DOLPHN provides a convenient exporting function, PDFs of Country Health Statistical Reports (CHSRs), and full definitions and citations for all indicator information.

3.15.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

3.15.3 General Information

Category	Description
Organization Owner	GH/HN/PSR
System Manager	PHNI Project
Security level	Low level of Security
Scalability level	Medium level of Scalability
Support information	Functional help desk, technical help desk, upgrade and maintenance support provided by PHNI Project.
CPIC	No
Location Information	Located at PHNI in Washington, D.C.
Deployment Information	Deployed domestic and overseas including CA's.

3.15.4 User Community

Category	Description
Enterprise User Base Range	Information not available
Domestic User Base Range	Information not available
Overseas User Base Range	Information not available
Long Term User Base Range	Information not available
Long Term User Goal	Information not available

3.15.5 Data Exchange

Source	Type	Frequency	Description
Web Browser, SQL Server	Input	Quarterly	USAID Country Health Statistical Indicators are updated.
SQL Server, Web Browser	Output	Quarterly	USAID Country Health Statistical Reports.
Web Browser	Output	Daily	Ad-hoc querying of indicator data

3.15.6 Services

FEA PMO SRM		
Digital Asset Services	Knowledge Management	Information Sharing
		Knowledge Distribution and Delivery
Business Analytic Services	Analysis and Statistics	Population and Health Statistics
		Demographics

3.15.7 Technology

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	N/A
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	I.E, Netscape
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	508, Login and Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	HTML, DHTML, ASP
	Logic	DCOM
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Web Server		
Platform	Hardware	Intel (Compaq, ProLient DL380 G2
	Operating System	Windows 2000
	Delivery	MS IIS
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	N/A
	Delivery	Internet
	Transport	TCP/IP, HTTP
	Requirements	N/A
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	HTML, DHTML, ASP, DCOM
	Logic	N/A
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Database Server		
Platform	Hardware	Intel (Compaq, ProLient DL380 G2
	Operating System	Windows 2000
	Delivery	N/A
	Support	N/A
	Database	SQL Server
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	Password and Login
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	N/A
	Logic	SQL
	Data Management	N/A
Connectivity	Integration	ODBC
	Interoperability	N/A
	Interface	N/A

3.16 Financial Tracking System

3.16.1 Overview

The Financial Tracking System (FTS) is a comprehensive financial planning and tracking tool. It is used by USAID's Bureau for Global Health (GH) for tracking CORE, Field Support, MAARD and OE funds at the agreement level through all fund stages (planned, received, committed, obligated). In addition, the system records result packages, agreement information and the emphasis area coding for CORE obligations.

The FTS was originally designed under the CIHI project as a comprehensive financial planning and tracking tool for Global Health Bureau. The system was to be used to plan and track all financial transactions relating to the centrally funded PHN projects. The system was intended to track funds at the agreement level through the planning, commitment, and obligation stages by type (core, field support, and other), account, congressional directives and sub-directives, strategic objectives, and operating unit source in the case of field support and other funds. The system is also intended to keep track of vital result package and agreement information like ceiling levels, start and end dates, agreement holders, and amendments and modifications.

CIHI project was able to test an initial FTS prototype with limited functionality. A successful production system was never implemented. While the original FTS design was intended to be the primary field support and MAARD tracking tool for the PHN sector of USAID, another "temporary" solution was found. USAID commissioned the development of the Field Support

Database (FSD), an MS Access 97 database that tracks the planning and obligating for field support and MAARD funds for the entire Agency (not just the PHN sector). Until the first full release of FTS in the spring of 2000 by the PHNI Project, PHN continued to track core funds using spreadsheet legacy systems.

The 2.50 FTS release (June 2002) allows GH to track the funding of its agreements by linking the FTS with the FSD. This release gave users the ability to plan field support and MAARD funds in FSD and have these planned funds appear in the FTS. Correspondingly, users could record the processing and obligation of field support and MAARD funds in FTS and have these results appear in the FSD. Later that year, the FSD and FTS databases were merged into one FTS database. This gave GH users the ability to plan, manage, and report field support funds within the FTS application. A FSD Web front end was provided to the missions that fed into the FTS, which sped up the field support data entry.

3.16.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

3.16.3 General Information

Category	Description
Organization Owner	GH
System Manager	PHNI Project
Security level	Medium level of Security
Scalability level	Medium level of Scalability
Support information	Functional help desk, technical help desk, upgrade and maintenance support provided by PHNI Project.
CPIC	No
Location Information	Located in Washington, D.C.
Deployment Information	Deployed in Washington, D.C. (GH Budget Office)

3.16.4 User Community

Category	Description
Enterprise User Base Range	11-100
Domestic User Base Range	11-100
Overseas User Base Range	0
Long Term User Base Range	101-1000
Long Term User Goal	101-1000

3.16.5 Data Exchange

Source	Type	Frequency	Description
NTRRB0050	Input	Field Support (FS) and Modified Acquisition and Assistance Request Document (MAARD), Central Contraceptive Program (CCP), and Emphasis Area (EA) funding data	Bi-annual
Web, Wclient	Output	Various Funding Reports	Daily

3.16.6 Services

FEA PMO SRM		
Back Office Services	Financial Management	Expense Management
		Financial Reporting

3.16.7 Technology

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	N/A
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	I.E, Netscape, and Visual Basic Client
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	508, Login and Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	HTML, DHTML, ASP
	Logic	DCOM
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Web Server		
Platform	Hardware	Intel (Compaq, ML 370)
	Operating System	Windows 2000
	Delivery	MS IIS
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP, HTTP
	Requirements	N/A
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	HTML, DHTML, ASP, DCOM
	Logic	N/A
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

Database Server		
Platform	Hardware	Intel (Compaq, ML 370)
	Operating System	Windows 2000
	Delivery	N/A
	Support	N/A
	Database	SQL Server
Access & Delivery	Access Channel	N/A
	Delivery	Intranet
	Transport	TCP/IP
	Requirements	Password and Login
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	N/A
	Logic	SQL
	Data Management	N/A
Connectivity	Integration	ODBC
	Interoperability	N/A
	Interface	N/A

3.17 OYB Microsoft Excel – AFR Budgeting

3.17.1 Overview

The Africa Bureau in Washington, D.C. uses a variety of tools and application to track funds. This includes using Phoenix, Annual Report Database, sending funds electronically, reporting, and tracking. To support the accounting of obligated funds they use multiple Microsoft Excel spreadsheets.

The AFR Budgeting spread sheet tracks funds from the time they are appropriated to obligation. The process starts with budget formulation. The missions request funds for the next fiscal year. This is reviewed and modified according to USAID requirements for the year such as priority SOs and keeping inline with OMB guidance. Once the budget is approved by USAID the funds become available to the missions. As the funds are obligated to the field the spreadsheet is updated. Funds transactions are tracked in the spreadsheet. This includes updating the spreadsheet with detail explanations, and saving the spreadsheet on the shared drive with file name change (date in the file name).

3.17.2 BRM Cross Reference

Financial Management MST-PMO-004-CP-043-F00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Acquisition and Assistance MST-PMO-004-CP-044-D00-IBM		
Process	**Sub-Process**	**Section**
N/A		

Budget MST-PMO-004-CP-048-D00-IBM		
Process	**Sub-Process**	**Section**
Execute Agency Budget	Monitor Budget Execution	3.7.1

Manage Portfolio Execution MST-PMO-004-CP-042-F00-IBM		
Process	**Sub-Process**	**Section**
Achieve	Monitor Activity Implementation	3.4.4

3.17.3 General Information

Category	Description
Organization Owner	AFR/DP/PAB
System Manager	AFR/DP/PAB
Security level	Low level of Security
Scalability level	Low level of Scalability
Support information	None Available
CPIC	No - Cuff
Location Information	Located in Washington, D.C. (AFR/DP/PAB)
Deployment Information	Deployed Washington, D.C. (Shared drive)

3.17.4 User Community

Category	Description
Enterprise User Base Range	1-10 (4 users of AFR/DP/PAB)
Domestic User Base Range	1-10 (4 users of AFR/DP/PAB)
Overseas User Base Range	0
Long Term User Base Range	1-10 unless a tool/application is developed.
Long Term User Goal	None unless a tool/application is developed.

3.17.5 Data Exchange

Source	Type	Frequency	Description
Manual Data Entry - Phoenix	Input	Ad-Hoc	Budget formulation guidance.
Manual Data Entry - Annual Report Database	Input	Ad-Hoc	Budget formulation guidance.
Manual Data Entry - OMB	Input	Ad-Hoc	Budget formulation guidance.
Manual Data Entry - Administrator	Input	Ad-Hoc	Budget formulation guidance.
Manual Data Entry - Missions	Input	Ad-Hoc	Budget formulation guidance.
Missions	Output	Ad-Hoc	Budget
Manual Data Entry - Missions	Input	Ad-Hoc	Budget execution.

3.17.6 Services

FEA PMO SRM		
Back Office Services	Financial Management	Budget Execution

3.17.7 Technology

Client		
Platform	Hardware	Intel
	Operating System	Windows
	Delivery	N/A
	Support	N/A
	Database	N/A
Access & Delivery	Access Channel	Shared drive
	Delivery	Microsoft Excel
	Transport	TCP/IP
	Requirements	508, Login and Password
Framework	Security	N/A
	Data Interchange	N/A
	Presentation	Windows
	Logic	N/A
	Data Management	N/A
Connectivity	Integration	N/A
	Interoperability	N/A
	Interface	N/A

4. To-Be Service Architecture

4.1 Architectural Framework

Developing the to-be application and technical architecture began with an envisioning session whereby the future direction for USAID IT strategy for the HIV/AIDS program was defined. In addition to the envisioning session, the following sources were reviewed and analyzed:

- The To-Be Business and Information Architecture,
  - USAID HIV/AIDS Segment Business and Information Architecture Overview (MST-PMO-004-CP-047-F00-IBM) 01/12/04,
  - USAID HIV/AIDS Segment Acquisition & Assistance Business and Information Architecture (MST-PMO-004-CP-097-D00-IBM) 01/12/04,
  - USAID HIV/AIDS Segment Budget Business and Information Architecture (MST-PMO-004-CP-098-D00-IBM) 01/12/04,
  - USAID HIV/AIDS Segment Financial Management Business and Information Architecture (MST-PMO-004-CP-096-D00-IBM) 01/12/04,
- Federal eGovernment initiatives (and in particular, the QuickSilver initiatives),
- Strategic Plan: Fiscal Years 2004-2009, United States Department of State and United States Agency for International Development,
- Ongoing USAID IT initiatives, and
- Current state of IT technologies and the direction of IT technologies.

The result of the envisioning session and analyzing the referenced sources led to developing a component based IT strategy. In this strategy, three classes of automation services would exist: business application services would provide specific business functionality, core infrastructure services would provide a set of general purpose functionality, and enabling IT services would provide support functionality. All services would be available throughout the agency and used as necessary to support business processes. This component based concept is currently being successfully used within the commercial sector. Some of the benefits of this approach are:

- Allows the agency to focus more of its resources on mission critical operations,
- Allows the agency to better scale its operations,
- Allows the agency to adapt service offerings to changing needs, and
- Allows the agency to respond more robustly to a threat environment.

4.2 Analysis

4.2.1 Consolidated Services

The first step in developing the HIV/AIDS services architecture 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 HIV/AIDS program. The services associated with the As-Is applications were combined with the services identified in the To-Be Business and Information Architecture. The resulting set of to-be services is provided in the below.

FEA PMO SRM Consolidated Services	
Back Office Services	
Assets/Materials Management	Asset Transfer, Allocation and Maintenance Property/Asset Management
Development and Integration	Enterprise Application Integration
Financial Management	Auditing Billing and Accounting Budget Execution (*) Credit/Charge Debt Collection Expense Management Financial Reporting Payment/Settlement Revenue Management
Business Analytic Services	
Analysis and Statistics	Demographics (*) Population and Health (*)
Business Intelligence	Decision Support and Planning
Business Management Services	
Investment Business Management	Budgeting (*) Strategic Planning and Management
Management of Process	Business Rule Management Change Management Governance/Policy Management Operations Planning (*) Performance Management (*) Program/Project Management Quality Management Requirements Management Standards Management (*) Strategic Planning (*)
Supply Chain Management	Invoice/Requisition Tracking and Approval Sourcing Management
Third Party Services (*)	Award Management (*) Dispute Resolution (*) Offering Response Management (*) Performance Management (*) Solicitation Development (*)
Digital Asset Services	
Document Management	Document Development (*) Document Imaging and OCR

FEA PMO SRM Consolidated Services	
Back Office Services	
	Document Review and Approval Document Revisions Library/Storage
Knowledge Management	Information Mapping/Taxonomy Information Sharing Knowledge Capture Knowledge Distribution and Delivery
Support Services	
Collaboration	Document Library

This list was analyzed and the following conceptual business application areas were extrapolated from this consolidated list. These business application areas represent the major groupings of automated services that support the HIV/AIDS business processes.

- Strategic Management – Provides support for program wide strategic planning and budgeting processes and in developing and maintaining program wide information. Program wide information includes program policies, procedures, guidance and cross-functional standards. This business application area supports processes in the program oversight business process area.

- Operational Management – Provides support for operating unit level planning and budgeting. This includes planning and budgeting for the operating unit, as well as developing the results framework for the operating units. This business application area supports processes in the program operations business process area.

- Service Delivery to Field – Provides support for centrally procured and managed services to be available for the missions. This business application area supports processes in the program operations business process area.

- Knowledge Management – Provides support for integrating all facets of technical program knowledge. This includes knowledge regarding funding, program categories, operating unit strategies and objectives, results, best practices, strategies for combating HIV/AIDS, and any other data that can be used and shared about the HIV/AIDS pandemic. This provides support for processes in both the program oversight business process area and the program operations business process area.

- Financial Management – Provides support for processes in the financial management business process area.

- Procurement & Asset Management – Provides the automation services for acquiring, managing and tracking the purchase and distribution of products and services for the

HIV/AIDS program. This provides support for processes in the procurement business process area and the program operations business process area.

These business application areas were analyzed to identify underlying and supporting common services used by the business application areas. Guidance for developing these core infrastructure services came from the USAID Strategic Plan, ongoing USAID initiatives, and current industry technology trends. The following core infrastructure services resulted from this analysis:

- Workflow Processor
- Business Rules Processor
- Process Controller/Scheduler
- Integration Manager
- Audit Logging
- Directory Processor
- Report Processor
- Content Manager
- Document/Records Management
- Database Access and Control
- Data Aggregation and Translation
- Access and Security
- Real Time Communication
- Search
- Messaging
- Support to Public Queries
- Reporting
- USAID Public Access
- External Transaction/Data Exchange Processor

Both the business application area services and the core infrastructure services require enabling IT 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 work flow services, which in turn, supports the smooth operation of the budgeting system. The enabling IT services are:

- Investment Management
- Collaboration Services
- Data Management
- Software Management
- Service Support
- Program Management
- Security Management
- Contingency Management
- Infrastructure/Operations

- Service Level Management
- Change Management
- Configuration Management

As a final step in developing the to-be application and technical architecture, the subject areas developed in the as-is business and information architecture were combined with the knowledge items identified in the to-be business and information architecture to develop the following conceptual data stores:

- Address, Map, and Geographic Data
- Financial Data
- Contracts and Agreements Data
- Products and Services Data
- Performance Data
- Documents and Reports
- Communication Data
- People and Organizations
- Planning and Budgeting Data
- Program Technical Data
- Policies, Procedures, Guidance & Standards
- Executive Information System

4.2.2 Existing System Alignment

Part of the development of the to-be application and technical architecture included analyzing existing systems. The as-is application and technical architecture included analysis of seventeen systems. This included a description of the individual applications and a cross-reference to business processes.

Four additional systems have been reviewed as part of the to-be visioning. These systems were originally not included in the catalog of systems to be investigated for the as-is application and technical architecture. These four new systems were identified for investigation because they would provide insight in developing the to-be service architecture. A brief description of the following systems can be found below.

- Newvern
- Bureau Data Resource Center (BDRC)
- Economic and Social Database
- Ask Paul

Newvern

Newvern is an automated management information system designed for order processing, financial tracking, and shipment monitoring. Newvern supports the central procurement activities

of the Commodities Security and Logistics Division (CSL), Office of Population and Reproductive Health, Bureau for Global Health, of USAID. CSL is responsible for purchasing and shipping contraceptives and condoms to USAID-supported family planning and HIV/AIDS projects throughout the world. The annual value of commodities shipped is currently about 70 million dollars.

The Newvern database serves as the primary source for all information relating to CSL's condom and contraceptive production and warehousing and shipping activities. As such, it contains information on production contracts, warehouse stocks by lot, field orders, shipments in process, and funds received and expended. All changes in funding, production or shipments are reflected in Newvern, the single source for all information necessary for the day-to-day operation of CSL's central contraceptive procurement (CCP) system. In addition to purchase orders and warehouse shipping instructions, a number of Newvern reports assist USAID in management decisions, and financial and shipment reports are regularly provided to Missions and Cooperating Agencies.

Developed to manage the unique needs of CSL's procurement and shipping system, Newvern was launched in 1987 by the FPLM I project of John Snow, Inc., and continues to be maintained and operated by JSI under the DELIVER contract. It is available to CSL by direct T-1 line, and USAID Missions can access NEWVERN reports on the Internet.

Bureau Data Resource Center (BDRC)

BDRC is a web based executive information management system that consolidates data from existing Agency information systems as well as Mission's into a single source. BDRC bridges the gap between Agency systems as well as provides data mining capability at the Agency level. Some of the features in BDRC are budget planning, pipeline, and burn rate analysis. The System's major modules are:

- Budget Planning/Implementation
- Financial Reporting
- Activity Management
- Procurement Planning and Monitoring
- Socio-economic Data Resources
- Workforce Management
- External data and resource interface module

BDRC was developed to aid the E&E bureau management in filling the various voids in reporting and analysis that existed between several of the Agency systems. BDRC's flexible architecture allows for easy creation of new interfaces to external sources, as well as adaptation to meet other regional/pillar bureau needs. This innovative and comprehensive executive information system has proven to be a major step forward in strengthening the Agency's reporting ability and as well as better informing regional/pillar program management and the overall decision making process.

Currently, BDRC is implementing several of these modules in E&E/Washington, field Missions. Under an Agency-wide distribution effort, the LAC bureau has been chosen as a pilot site. Upon success of the activity, BDRC will be implemented in the rest of the regional and pillar bureaus in concert with PPC and IRM.

Economic and Social Database

The Economic and Social Database serves the agency as the statistical information source on socio-economic trends of developing countries. USAID Development Information System (DIS) makes selected statistical data available to its development partners through the Internet. In addition, DIS provides data to the agency through the USAID Intranet, print publications, and CD-ROM. The Economic and Social Database is USAID's central repository for current and historical socio-economic data. The database includes the following:

- 4876 data series
- 50 sources
- 31 institutions

DIS has collected statistical data from a range of domestic and international institutions including the following:

- Bureau of Census (BUCEN)
- Center for Disease Control (CDC)
- World Bank
- World Resource Institute

The following areas of development activity can be accessed in Economic and Social Database country reports:

- Economic Growth
- Trade & Finance
- Population & Demographics
- Health & Nutrition
- Environment & Agriculture
- Education & Labor
- Democracy & Governance
- Humanitarian Relief

Ask Paul

Ask Paul is a web enabled data repository targeted to OHA employees. The application consists of a list of documents for downloading. It contains briefings, presentations, fact sheets, memos, and other document pertaining to OHA.

4.2.3 Applicable USAID eGov Initiatives

The analysis of the Federal eGovernment initiative (QuickSilver) identified several initiatives which can compliment the USAID IT strategy for the HIV/AIDS program. In addition, several USAID eGov projects can also fit into the to-be application and technical architecture.

The following USAID eGov projects have been identified:

- eGrants
- eAcquisition
- eTraining
- Consolidated Health Info

The individual USAID eGov projects can be aligned with specific business application areas. For example, eGrants will allow both grantor and grantee to post and review grant applications on a web portal that interfaces with the agency procurement solution (PSIP). eGrants aligns with Procurement & Asset Management.

USAID eGov Alignment	
eGov Initiative	Business Application Area
eGrants	Procurement & Asset Management
eAcquisition	Procurement & Asset Management
eTraining	Knowledge Management
Consolidated Health Info	Knowledge Management

Initiatives such as USAID eAuthentication should also be investigated for inclusion into USAID IT strategy for the HIV/AIDS program. While eAuthentication does not align with a business application area, it should be taken into consideration as part of USAID core infrastructure services (and in particular, Access and Security).

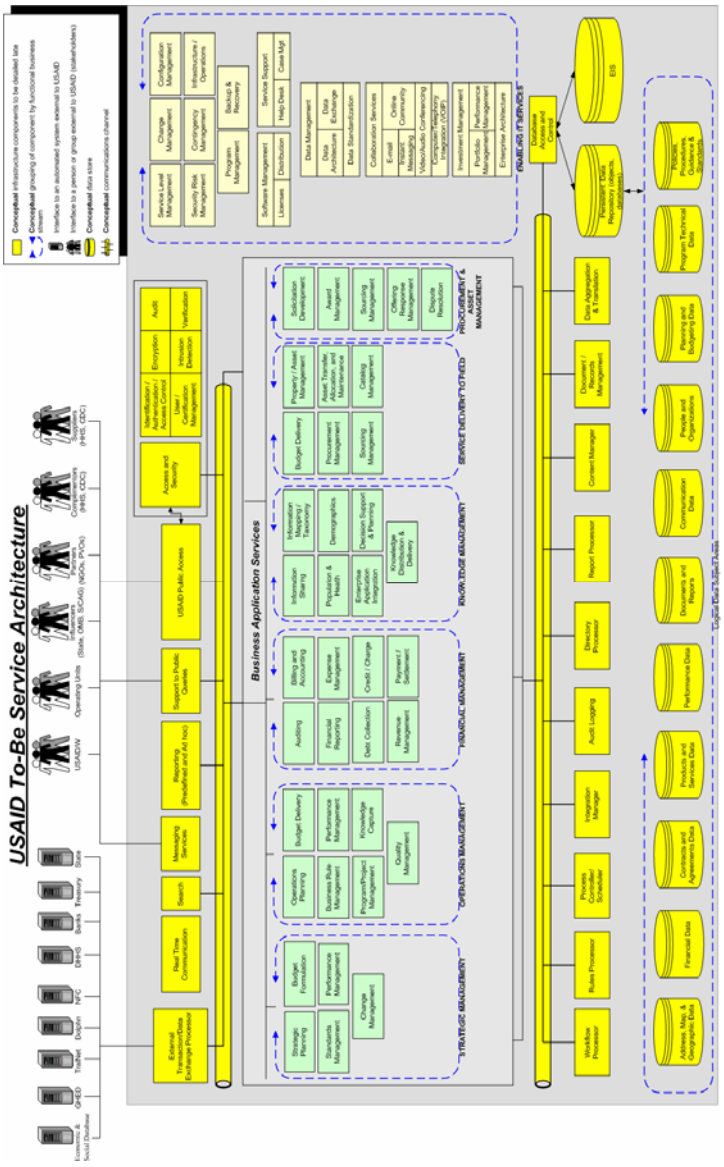
Finally, Several QuickSilver initiatives can align to either business application areas or core infrastructure services:

QuickSilver Initiative Alignment	
Grants.gov (HHS)	Procurement & Asset Management
eAuthentication (GSA)	Security
eRecords Management	Knowledge Management

4.3 To-Be Service Architecture

The following diagram illustrates the to-be service architecture for the HIV/AIDS program. It consists of classes of automation services that support the HIV/AIDS business processes.

Figure 4: To-Be Service Architecture



4.3.1 Business Application Area

Business application area services provide functionality directly to the end users to support the business processes they execute.

4.3.1.1 Strategic Management

The Strategic Management business application service provides support for HIV/AIDS strategic planning and budgeting at the global level. The services provided support the processes for developing and maintaining the following:

- Global HIV/AIDS strategy
- HIV/AIDS program categories and associated budgets
- HIV/AIDS program guidance
- HIV/AIDS performance indicators
- HIV/AIDS cross-functional standards

The sum of these activities provides the framework that is used by operational planning and budgeting area so that the global program can be centrally managed by OHA.

The following services from the Federal Enterprise Architecture Service Component Reference Model (Version 1.0) will be provided by the Strategic Planning & Budgeting business application service:

- Strategic Planning
- Budget Formulation
- Standards Management
- Performance Management
- Change Management
- Business Rule Management
- Governance/Policy Management

Strategic Planning provides the set of capabilities to develop and coordinate the activities and work products associated with HIV/AIDS strategic planning. This also includes developing the appropriate guidance to be used by operating units for their planning activities.

Budget Formulation provides the set of capabilities to develop and coordinate the activities and work products associated with the global HIV/AIDS budget. This includes, but is not limited to developing out year budgets, capturing budget data in a structured manner, working with the S/GAC to develop budget categories, and the steps associated with budget negotiations (both internally and externally, such as allotments, allocations, appropriations, etc.).

Standards Management provides the set of capabilities to develop and maintain HIV/AIDS program standards and guidance. Since much of the guidance is in the form of program level standards (HIV/AIDS performance indicators, for instance), this service supports guidance development. It also develops the relationships between the various guidance.

Performance Management provides the set of capabilities to develop, maintain, collect, and assess global HIV/AIDS performance. In this capacity, individual operating unit performance data is consolidated within this service to develop a "big picture". Within this service, external influencing factors are taken into consideration when developing the "big picture".

Change Management provides the set of capabilities that control the process for updates or modifications to the existing documents, software or business processes of an organization.

Business Rules Management provides the set of capabilities for the managing processes that support the HIV/AIDS program.

Governance / Policy Management provides the set of capabilities intended to influence and determine decisions, actions, business rules and other matters within the HIV/AIDS program.

Inputs to the Strategic Planning & Budgeting business application service include information such as current strategy and funding, external events (e.g., USG Foreign Policy, world events), S/GAC and agency mission and goals, S/GAC and agency budget direction, and planned HIV/AIDS appropriations.

Outputs include performance indicators, executive guidance, program policies and procedures, program standards, cross-functional standards, program categories, and operational guidance.

The Strategic Management business application area supports the following sub processes:

Strategic Management	
Acquisition and Assistance	
Acquisition and Assistance Planning	Generate Request
Budget	
Prepare Budget Guidance	Determine Budget Guidance Establish New Account Review Budget Guidance Determine Earmark and Guidance Release Budget Guidance
Formulate Agency Budget	Negotiate Budget Develop Justification Negotiate ICASS Services
Request Agency Budget	Prepare OMB Budget Submissions Determine OMB Reclamations Record Target Level Prepare President's Budget Prepare Congressional Presentation Develop Justification

Strategic Management	
Acquisition and Assistance	
Allocate Funds	Request Appointment Post Appointment Transfer Funds Develop Justification Distribute OYB Distribute Allowances Provide Congressional Notification
Program Oversight	
Program Planning and Budgeting	Assess Needed Changes to Policies and Procedures Develop and Maintain Program Policies and Procedures Develop and Maintain Long Range HIV/AIDS Program Plan Assess Needed Changes to Governance Model Develop and Maintain Governance Model Assess Needed Changes to Program Standards Develop and Maintain Program Management Performance Criteria Develop and Maintain Technical Performance Indicators Develop Program Communication Plan Develop and Maintain Program Business and Technical Architecture Assess Needed Changes to Operational Guidance Develop and Maintain Operational Guidance Coordinate & Endorse HIV/AIDS Budget Submissions Submit HIV/AIDS Program Budget for Approval Identify Knowledge Requirements Analyze and Plan Support Needs
Program Execution	Disseminate Program Guidance Disseminate Program Management Information Disseminate HIV/AIDS Knowledge Review & Approve Operating Unit HIV/AIDS Strategies Monitor and Evaluate Resource Usage and Services Enforce Program Guidance Collect and Aggregate Program Results QA / Information Assurance Respond to Program Information Requests Advise and Consult
Program Knowledge Creation	Evaluate Program Policies and Procedures Understand Internal and External Forces Affecting the HIV/AIDS Program Evaluate Program Governance Model Evaluate Program Standards Evaluate Communication Plan Identify and Recommend Changes to Agency Communications

Strategic Management	
Acquisition and Assistance	
	Infrastructure
	Evaluate Program Guidance Effectiveness
	Analyze HIV/AIDS Program Results
	Review and Analyze Program Management Data
	Collect and Consolidate Lessons Learned
	Collect and Consolidate HIV/AIDS Knowledge
	Develop Program Support Lessons Learned
Program Operations	
Plan	Inventory Resources
	Analyze Service and Resource Needs
	Plan Services and Resources
Achieve	Respond to Operational Information Requests
	Draft & Execute Procurement Documents

4.3.1.2 Operational Management

The Operational Management business application service provides support for HIV/AIDS operational planning and budgeting at the operating unit level. The services provided support the processes for developing and maintaining the following:

- Operating Unit HIV/AIDS plans and budget
- Operating Unit HIV/AIDS results framework development
- Operating Unit planned procurements for products and services

The sum of these activities provides the framework that is used by operational planning and budgeting area so that the global program can be executed by the operating units in a coordinated and consistent manner.

The following services from the Federal Enterprise Architecture Service Component Reference Model (Version 1.0) will be provided by the Strategic Planning & Budgeting business application service:

- Operations Planning
- Program/Project Management
- Quality Management

Operations Planning provides the set of capabilities to develop and maintain the operating unit plans, utilizing the results framework, but within the guidance and standards provided by the strategic planning and budgeting service. Also included in this service is support for developing the individual operating unit procurement strategies. Coordination between mission procurement strategies, regional procurement strategies, and OHA procurement strategies are executed within

this service. This is the initial work done to provide field support, from a procurement strategy perspective.

Program/Project Management provides the set of capabilities for managing and controlling a particular effort being executed by an operating unit.

Quality Management provides the set of capabilities intended to help determine the level of assurance that a product or service will satisfy certain requirements.

Performance Management provides the set of capabilities for measuring the effectiveness of the operating units' activities. This includes the results both a technical HIV/AIDS perspective, and from a management perspective.

Knowledge Capture provides the set of capabilities that facilitate collection of data and information. For the HIV/AIDS program, this includes both HIV/AIDS technical knowledge and program management/service delivery knowledge.

Inputs used by this business application service include:

- In-country needs
- Results Framework
- Guidance and Standards

Output from this business application service includes:

- Mission Performance Plan
- Execution Budget
- Required Products & Services
- Activity Plans
- Operational Performance Indicators and Goals
- Performance Data
- Procurement Needs

The Operations Management business application area supports the following sub processes:

Operations Management	
Acquisition and Assistance	
Acquisition and Assistance Planning	Operating Unit Planning and Formation Apply Other Considerations Affecting Operating Unit Planning and Formation Generate Request
Budget	
Formulate Agency Budget	Determine Activity Budget Negotiate Budget
Allocate Funds	Distribute Funds Distribute OYB Distribute Allowances Provide Congressional Notification
Execute Agency Budget	Monitor Budget Execution Manage ICASS Budget Manage Local Currency
Financial Management	
Manage Funds	Distribute Budgetary Resources
Program Operations	
Plan	Determine and Articulate Desired Results Formulate Operating Plan Obtain Approval Develop Resource and Service Plans with Partners Identify Operational Information Need Inventory Resources Analyze Service and Resource Needs Plan Services and Resources
Achieve	Negotiate Operating Plan Agreement Complete Activity Planning Requirements Coordinate Program Activities Quality Assurance Collect and Aggregate Activity Information Respond to Operational Information Requests Draft & Execute Procurement Documents
Asses and Learn	Monitor and Evaluate Program Performance Review Portfolio Evaluate Results Prepare Annual Report Develop Lessons Learned

4.3.1.3 Financial Management

The Financial Management Business Application Area consolidates the services required to support making informed financial management decisions. It describes a future environment which is supported by automation services that facilitate the HIV/AIDS Financial Management business processes.

This component based environment will allow the Financial Management area to take advantage of enabling IT services and core infrastructure. For example, Financial Management will take advantage of report processor (core infrastructure service) and collaboration services (enabling IT service).

The following services from the Federal Enterprise Architecture Service Component Reference Model (Version 1.0) will support the Financial Management area:

- Billing & Accounting
- Credit/Charge
- Expense Management
- Payment/Settlement
- Debt Collection
- Revenue Management
- Auditing
- Financial Reporting

Billing and Accounting defines the set of capabilities that support the charging, collection and reporting of an organization's accounts.

Credit/Charge defines the set of capabilities that support the use of credit cards or electronic funds transfers for payment and collection of products or services.

Expense Management defines the set of capabilities that support the management and reimbursement of costs paid by employees or an organization.

Payment/Settlement defines the set of capabilities that support the process of accounts payable.

Debt Collection defines the set of capabilities that support the process of accounts receivable.

Revenue Management defines the set of capabilities that support the allocation and re-investment of earned net credit or capital within an organization.

Auditing defines the set of capabilities that support the examination and verification of records for accuracy.

Financial Reporting defines the set of capabilities that support the structured dissemination of financial data and information in both physical format and electronic media.

The Financial Management business area receives data as an input from other HIV/AIDS Segment business areas. Specifically, Budget Delivery and Strategic Planning & Budgeting provide financial tracking data, cross-functional standards, and Operating Year Budgeting data (Initial OYB).

The Financial Management business application area supports the following sub processes:

Financial Management	
Budget	
Allocate Funds	Distribute OYB
Financial Management	
Manage General Ledger	Maintain Accounting System Information Process Transactions Analyze & Reconcile General Ledger Generate Financial Reports
Manage Funds	Distribute Budgetary Resources Control Funds
Manage Accounts Payable	Manage Accounts Payable Information Record Accounts Payable Execute Payments Confirm Payments Manage Accruals
Manage Cost Accounting	Allocate Costs
Manage Accounts Receivable	Establish Accounts Receivable Service Accounts Receivable Control Payments Monitor Accounts Receivable
Manage Grants	Mange LOC Grants
Mission Accounts Payable	Missions – Maintain Payee Information Mission – Record Transactions Mission – Execute Payment Mission – Confirm Payments
Mission Accoun6ts Receivable	Mission – Service Accounts Receivable Mission – Receive Collection Mission – Monitor Aged Receivables

4.3.1.4 Knowledge Management

Knowledge Management Business Application Area consists of a suite of services which are accessed through a single information point. Users can access USAID HIV/AIDS segment program management information. Knowledge Management involves the creation, dissemination and utilization of intellectual capital.

This future state will include links between Knowledge Management and other business areas. Specifically, knowledge items such as program results and resource & service usage shall be disseminated through the Knowledge Management business area. This suite of services shall facilitate exchange of information including standards, news and terminology. Ultimately, it will facilitate communications between the HIV/AIDS program, agency, partners, and stakeholders.

The suites of services to support the Knowledge Management area are:

- Information Sharing
- Information Mapping/Taxonomy
- Knowledge Distribution & Delivery
- Population & Health
- Demographics*
- Decision Support & Planning
- Enterprise Application Integration

Information Sharing defines the set of capabilities that support the use of documents and data in a multi-user environment for use by an organization and its stakeholders.

Information Mapping/Taxonomy defines the set of capabilities that support the creation and maintenance of relationships between data entities, naming standards and categorization.

Knowledge Distribution and Delivery defines the set of capabilities that support the transfer of knowledge to the end customer.

Demographics defines the set of capabilities that support accessing and retrieving statistical data regarding age, gender, location, and other social & economic data

Decision Support and Planning defines the set of capabilities that support the analyze information and predict the impact of decisions before they are made.

Enterprise Application Integration defines the set of capabilities that support the redesigning of disparate information systems into one system that uses a common set of data structures and rules.

The above mentioned services were aligned with the knowledge items identified in the Business and Information Architecture Overview document. Similar to other business areas the following knowledge items are linked (input/output) to other HIV/AIDS Program business areas.
Inputs used by this business application service include:

- Technical Performance Metrics
- Technical Performance Indicators
- Activity Lessons Learned

- Program Results
- Resource and Service Usage

Output from this business application service includes:

- Objectives, Goals, & Results
- Current HIV/AIDS Funding
- Current HIV/AIDS Strategies
- Changes in Internal and External Factors
- GAC and Agency Mission and Goals
- HIV/AIDS Technical Knowledge
- Program Operating Environment
- Program Standards
- Governance Model
- Industry Leading Practices
- Operational Guidance
- Planned HIV/AIDS Appropriation
- Program Budget Guidance
- Program Management Information
- Program Management Performance Criteria
- Program Mission and Goals
- Program Policies and Procedures
- Standards Reporting Formats

The Knowledge Management business application area supports the following sub processes:

Knowledge Management	
Budget	
Prepare Budget Guidance	Release Budget Guidance
Allocate Funds	Distribute OYB
Program Oversight	
Program Planning and Budgeting	Develop and Maintain Program Policies and Procedures Develop and Maintain Long Range HIV/AIDS Program Plan Develop and Maintain Governance Model Develop and Maintain Program Management Performance Criteria Develop and Maintain Technical Performance Indicators Develop Program Communication Plan Develop and Maintain Program Business and Technical Architecture Develop and Maintain Operational Guidance
Program Execution	Disseminate Program Guidance Disseminate Program Management Information Disseminate HIV/AIDS Knowledge
Program Knowledge Creation	Develop Program Support Lessons Learned

Knowledge Management	
Program Operations	
Plan	Develop Resource and Service Plans with Partners
Asses and Learn	Monitor and Evaluate Program Performance Review Portfolio Evaluate Results Prepare Annual Report Develop Lessons Learned

4.3.1.5 Service Delivery to Field

The Service Delivery to Field business application service provides support for OHA's role in centrally procuring HIV/AIDS products and services that are delivered by the missions. It also provides the capabilities to support rapid response by developing product catalogs that can be used for putting contracts in place. These catalogs will contain products and services against which operating units can place orders. The services provided support the processes for developing and maintaining the following:

- Products and Services Catalogs
- Consolidated Procurements

The sum of these activities provides a focal point for the procuring and managing centrally managed HIV/AIDS products and services.

The following services from the Federal Enterprise Architecture Service Component Reference Model (Version 1.0) will be provided by the Strategic Planning & Budgeting business application service:

- Budget Delivery
- Sourcing Management
- Catalog Management
- Asset Transfer, Allocation, and Maintenance

Budget Delivery provides the set of capabilities that support taking execution budget data and procuring managed products and services against the budget.

Sourcing Management provides the set of capabilities that support the supply of goods or services being centrally procured and managed by OHA as well as the tracking and analysis of costs for these goods.

Catalog Management provides the set of capabilities that support the listing of available products or services that OHA has procured on behalf of the fields.

Asset Transfer, Allocation, and Maintenance provides the set of capabilities that support moving, assigning, and replacing of assets.

Inputs to this business application service include:

- Execution budgets
- Activity Plans
- Available Products & Services

Outputs from this business application service include:

- Available Products & Services
- Needed Procurements
- Procurement Tracking Data
- Financial Tracking Data

The Service Deliver to Field business application area supports the following sub processes:

Service Delivery to Field	
Financial Management	
Manage Funds	Distribute Budgetary Resources
Program Oversight	
Program Execution	Monitor and Evaluate Resource Usage and Services
Program Operations	
Plan	Inventory Resources Analyze Service and Resource Needs Plan Services and Resources
Achieve	Coordinate Program Activities Respond to Operational Information Requests Draft & Execute Procurement Documents

4.3.1.6 Procurement & Asset Management

The Procurement & Asset Management business application area consolidates the services required to support acquiring and managing HIV/AIDS procurements. It describes a future environment which is supported by automation services that facilitate the HIV/AIDS Acquisition & Assistance business processes.

The following services from the Federal Enterprise Architecture Service Component Reference Model (Version 1.0) and extended HIV/AIDS Program services will be provided by the Procurement & Asset Management business application service:

- Solicitation Development*
- Award Management*
- Sourcing Management
- Offering Response Management
- Dispute Resolution

Solicitation Development defines the set of capabilities that support composing and reviewing materials used in USAID procurements. This can include within this definition solicitation development supports both grants and purchases.

Award Management defines the set of capabilities that support to notify award winners and negotiate the final terms and conditions for the award.

Sourcing Management defines the set of capabilities that support the supply of goods or services as well as the tracking and analysis of costs for these goods.

Offering Response Management defines the set of capabilities that support receiving and evaluating responses to solicitation.

Dispute Resolution defines the set of capabilities to accept, track, resolve, and communicate disputes and the resolutions to disputes.

Inputs to this business application service include:

- Partner Capabilities
- Technical Performance Metrics
- Technical Performance Indicators
- Local Conditions and Needs
- Policies and Procedures

Outputs from this business application service include:

- Policies and Procedures
- Offerings
- Awards

The Procurement and Asset Management business application area supports the following sub processes:

Procurement & Asset Management	
Acquisition and Assistance	
Award Formulation	Route Action to Appropriate Process OSDBU Clearance Advertise Action Prepare Solicitation or Grant Scope Solicit Response Evaluate Response Conduct Negotiation Execute Award Manage Protest
Award Administration	Administer Award Monitor Performance Modify Award Prepare Novation/Change of Name Agreement Termination Claims/Dispute Resolution Close Out Award
Acquisition and Assistance Support	Audit Support of Responsibility Determination Audit Support of Cost/Price Analysis Monitor Annual Audit Requirements Monitor Annual Audits Audit Support Other Issues Finalize Negotiated Indirect Cost Rate (NICRA) Administer Procurement Policy by OP/P Provide Support by OP/E Issue Warrants by OP/E Perform Systems Review by OP/E

4.3.2 Infrastructure Services

Infrastructure services provide core functionality that business application area services use to implement their functionality. For instance, the strategic planning 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. By developing a service oriented, component based architecture using core infrastructure services, more flexibility in terms of implementation choices can be achieved.

Workflow Processor is an automated service that operates in conjunction with multiple services and applications to automate the flow of business processes. For example, document workflow allows change tracking and automates sending a document for review or approval.

Rules Processor provides data manipulation based on predefined rules. For example, a rule processor can be used to process information once the predefined rule is met.

Process Controller/Scheduler provides an event-based service which executes a process once an event is met. An event is typically defined as a change in value of a data item. Since the data item can be either a time value or other data, an event can be either time based or based on another type of trigger.

Integration Manager provides a universal interface/foundation which can incorporate multiple systems and technologies. For example, WebSphere is a high performance web-enabled application server which can be integrated with multiple platforms.

Audit Logging provides a non-intrusive service which tracks and records transactions into a repository. This service can provide electronic business transaction tracking though multiple systems/applications.

Directory Processor provides the capability to access USAID structured directory. Additional capabilities can be the directory processor links to security to provide authentication and identification capabilities.

Report Processor defines the set of capabilities that support report creation. For example, a service such as Payment/Settlement can engage the report processor to generate a report.

Content Manager defines the set of capabilities that support managing, storing, and presenting of information to an end user. The most notable examples today of content managers are those capabilities that provide support for managing web content.

Document/Records Management defines the set of capabilities to create, store, edit, and publish documents. Document Management and a suite of infrastructure services can optimize.

Data Aggregation & Translation defines the set of capabilities to collect, transform, and combine data from either a single or multiple sources. Typically, data aggregation and translation services have been used for structured data stored in operational data stores for use in analytic data stores.

External Transaction/Data Exchange Processor defines the set of capabilities that allow linked applications to exchange data with other applications using a predefined interface.

Real Time Communication defines the set of capabilities that provides the ability to communicate instantaneously. Supporting enabling IT services are telephony, instant messaging, and Video/audio conferencing.

Search defines the set of capabilities that support the ability to locate/find information. The search process includes an emphasis on taxonomy and data structure.

Messaging Services defines the set of capabilities that support communications between people. For example, Instant Messaging that provides convenient communications between people (PC/mobile phone/PDA).

Reporting (Predefined and Ad hoc) defines the set of capabilities that present reporting needs to a report processor, and formats the reporting results in accordance with user report format needs. For example, Crystal Report is a web-enabled agency tool to run predefined queries. In addition, Crystal Reports supports custom query (Ad hoc) functionality.

Support to Public Queries defines the set of capabilities to support accept information requests from users outside of USAID, and manage and monitor those information requests.

USAID Public Access defines the set of capabilities that support accessing Agency information. For example, the USAID public website (www.usaid.gov) provides customers access to USAID publications and news.

Access and Security defines the set of capabilities that support prevention or protection of information/data access by unauthorized recipients (including unauthorized destruction or modification of data).

Identification/Authentication/Access Control defines the set of capabilities that verifies user identity, user permission for access, and access to USAID systems and data.

User/Certification Management defines the set of capabilities that maintains a list of users and their registration information and supporting certificates that are used by security services providing user authentication and authorization. For example, PKI is a public service supporting user registration and authentication.

Encryption defines the set of capabilities that convert text to cipher text. This service supports the prevention of unauthorized user reading encrypted data.

Intrusion Detection defines the set of capabilities that monitors and tracks unauthorized user attack from outside of the organization. This service supports the analysis of abnormal activity patterns, systems configuration, and systems vulnerability.

Audit defines the set of capabilities that examines system security. For example, security systems can automate vulnerability scans to identify security gaps. The audit service maintains a verifiable trail of information that can be used when analyzing or recreating a past occurrence.

4.3.3 Enabling IT Services

The enabling IT services provide the capabilities to develop, maintain, and support the IT infrastructure. These automation services are used by IRM to execute its business processes.

Service Level Management the set of capabilities to establish service levels for IT services and to monitor metrics against the service levels. This is used to understand and take necessary corrective action on the IT infrastructure such that agreed upon IT service levels are maintained.

Change Management provides the set of capabilities to establish and execute the automation support for assessing and implementing changes within the IT infrastructure.

Configuration Management provides set of capabilities that capture and maintain information about the IT infrastructure. As such, it supports implementing IT standards, and assessing the impact of changes to standards.

Security Risk Management provides the set of capabilities that evaluate and analyze security data to determine actions necessary to improve and/or maintain appropriate levels of security consistent with USAID's security plan.

Contingency Management provides the set of capabilities for planning and executing contingency operations within a degraded or impacted environment.

Infrastructure / Operations provides the set of capabilities to manage and operate the IT infrastructure on a daily basis.

Software Management provides services that capture and maintain software license data, and provide automated distribution of software and software upgrades.

Service Support provides services used when supporting IT users. It consists of automated help desk support and case management.

Data Management provides the set of capabilities to maintain consistency in data definition and use throughout the HIV/AIDS program. It includes data architecture, data standardization, and data exchange.

Collaboration Services provides the set of capabilities to support data communication needs for the HIV/AIDS program. These consist of electronic mail, instant messaging, video/audio conferencing, computer/telephony integration, and online community (discussion groups). These services in particular are called out by the HIV/AIDS overview document as necessary to support the to-be vision.

Investment Management provides the set of capabilities to determine the need for, and align IT investments that are support of HIV/AIDS business needs. This includes portfolio management, performance management, and enterprise architecture.

4.3.4 Persistence Services

Persistence services provide the set capabilities to manage and store the knowledge, information, and data used by the HIV/AIDS program.

Address, Map, & Geographic Data consists of spatial information for both the physical world and abstract worlds. For instance, IP addresses can be mapped on a network map in a similar fashion as physical addresses can be mapped on a geographic map.

Financial Data consists of any type of financial data excluding budget data. This is primarily focused on the use of financial resources, not what is planned.

Contracts and Agreements Data consists of any legally binding offering between USAID and a third party. This also includes information necessary to support the process of getting to the legally binding offering. This has strong touch points with offerings.

Products and Services Data consists of products and/or services provided by a person/organization to another person/organization. This can be used for products/services offered by USAID and products/services offered to USAID.

Performance Data consists of desired achievements and measures of achievements. These can be used to support objectives, goals and results at many levels, including at the USAID level, the OHA level, and the operating unit level.

Documents and Reports consists of any type of documentation that is generated by USAID not covered in another area.

Communication Data consists of any type of email, fax, phone, mail, or other communication. Any communication most likely involves other information, such as documentation, etc. Therefore, this relates to most other subject areas.

People and Organization Data includes attributes about people, organizations, and the relationships between them. Relationships include vendors, stakeholders, owners, customers, partners, etc.

Planning and Budgeting Data consists of programs and projects that are described in terms of plans, budgets, and activities. This subject area also provides a relationship between "objectives, goals & results", "offerings", "resources", "time, schedule & events" and "financial data".

Program Technical Data consists of knowledge, information, and data that support understanding the HIV/AIDS pandemic and strategies and tactics for combating the pandemic.

Policies, Procedures, Guidance and Standards consists of any type of documentation that provides constraints on and/or input to business processes regarding the HIV/AIDS program execution.

Resources consist of things used as an input to processes that support generating offerings. This includes both property and human resources.

Time and Schedule consists of information used in temporal reasoning.

4.3.5 External Systems

The following are a list of external systems and partners that exchange data with USAID to support business processes.

- Economic & Social Database
- GHED
- OPIN
- TraiNet
- Dolphn
- NFC
- DHHS
- Banks
- Department of Treasury
- Department of State

4.3.6 Stakeholders and Users

The following users and stake holders will have access to the system:

- USAID/W
- Operating Unites
- Influencers
- Partners
- Complimentors

Appropriate security for user access will be provided by the infrastructure security services.

5. Gap Analysis and Recommendations

The following section outlines specific gaps and recommendations needed to achieve the To Be Architecture. The architectural analysis began with an envisioning session whereby future direction for the HIV/AIDS Program IT strategy was defined. In addition to the envisioning session, numerous sources were reviewed and analyzed which led to the development of a component based IT strategy.

The recommendations described below are not in order of priority. Prioritization of the recommendations needs to be ordered according to the investment priorities of the Agency. To realize the architecture, two classes of recommendations are provided. Technology recommendations are realized in by the projects documented in the transition plan. The governance and policy recommendations provide guidance for existing and future IT investments.

Technology Recommendations

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

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.

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. The benefits include efficiency through organization, scheduling, controlling, and monitoring processes.

4. **Develop a quick hit solution for an Executive Information System for program management information** - Develop quick hit Executive Information System that will integrate within a web-enabled environment. Create a dashboard application tailored to meet executive's HIV/AIDS 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). It should include the development of a data mart that centralizes existing information.

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.

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 USAID knowledge management strategies/initiatives (such as efforts currently underway at PPC and CDIE).

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. This should also expand the functionality currently being provided by NewVern. This supports developing USAID's rapid response initiative.

IT Governance & Policy Recommendations

1. **Vet USAID initiatives with ongoing eGovernment initiatives** - Continue to vet current initiatives to the eGovernment framework. This vetting should apply to any new initiatives, and utilize a component based, core infrastructure, and web-enabled services framework. Emphasis should be placed on the interoperability with USAID infrastructure.

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. Formalized standards should be enforced and stress a component based infrastructure that allows code re-use and sharing of services.

3. **Take an evolutionary approach to developing core infrastructure services** – Development of functionality of the core services should be done in an evolutionary, centrally controlled manner. Develop additional components for the core infrastructure services architecture as they are needed to address specific user needs.

Gap Analysis

The process used for developing the gap analysis was to align the suite of applications reviewed in the as-is analysis with the technical services developed in the to-be model. In addition, ongoing USAID initiatives were viewed against the business application areas. From this, an assessment was performed. This is summarized in the table below.

Business Application Area	As-Is Application	USAID Initiatives	Assessment
Strategic Management	OPIN, BDRC, FSD, Ask Paul, Economic & Social Databese		The Strategic Management business application area provides support for Program strategic planning and budgeting (global). Currently this need is being met by heroic efforts and a few small applications which meet a niche. There is a need to develop a workflow engine and standards. Workflow services can work in conjunction with other services and applications to automate the flow of business transactions such as document creation. Existing tools such as Documentum can assist to facilitate this service. In addition, there is a need to create, disseminate, and enforce Program policies & procedures and guidance. These results (policies & procedures and guidance) can be incorporated into Knowledge Management business application area.
Operational Management	AFR OYB, OYB Budget Spreadsheets		The Operational Management business application area provides support for Program operational planning and budgeting at the OU level. Currently this need is not being met by an application/system. Several smaller Cuff records applications such as the Africa Bureau OYB spreadsheet are being used. In addition, emphasis needs to be placed on developing and enforcing standards, increase collaboration/communication globally, information sharing globally, and building the framework to support this.
Service Delivery to Field	FSD, NewVern		The Service Delivery to Field business area provides support OHA's role in centrally procuring HIV/AIDS products and services for the missions. Similar to the Strategic Management business application area needs are currently being met by niche applications/systems. For example, NewVern has been developed to meet the contraceptive commodity need. Improvements can be made by investigating the possibility of creating one commodity system or expanding NewVern with additional functionality covered by FSD. Efficiency can increase by providing missions access to this improved commodity system. This can be done with a web-enabled catalog of products and services against which OU can place orders.
Knowledge Management	Dolphn, OPIN, Ask Paul	EIS, PPC KM, CDIE KM	The Knowledge Management business application area shall provide a consistent suite of services which are accessed through a single information point. Currently there is no single source for Program and technical knowledge. Current applications such as Ask Paul and OPIN need to be integrated into a single data access point and advertised to all potential users looking for Program knowledge. The Economic and Social Database is used for statistical information on socio-economic trends. There is a need to aggregate such data into a central repository for analysis, drill-down functionality, and reporting. This need can be met with a knowledge management system and an Executive Information System supported by a data mart. The knowledge management initiatives worked on by PPC and CDIE further supports this business area. There is a need to leverage common knowledge taxonomy for the

Business Application Area	As-Is Application	USAID Initiatives	Assessment
			HIV/AIDS Program. Emphasis will need to be placed on the quality of the data for HIV/AIDS Program and easy access through a central web-enabled location for the Program, Agency, OUs, and other appropriate knowledge users such as partners (NGOs, PVOs), influencers (S/CAG, State, OMB), and suppliers (HHS, CDC).
Financial Management	Phoenix, MACS, MAL, GHED, ARD, FTS	POD	The Financial Management business application area consolidates the services required to support making informed financial management decisions. Currently the primary system to support this business area is Phoenix with supporting secondary systems such as MACS and MAL. The POD initiative provides the users at the missions the Phoenix functionality they need from a central repository. Similar to Knowledge Management business application area, current initiatives are a first step to fill the gap. These initiatives should have HIV/AIDS Program participants to see if Program needs will be met. There is a need that initiative data be accessible. Specifically, systems need to be developed based on pre-defined standards. To support exposing Phoenix functionality within a web services environment, appropriate interfaces need to be developed using integration technologies. This further leverages and builds upon the current POD initiative under development.
Procurement & Asset Management	NMS A&A, ARD, BDRC	PSIP, eAcquisition, eGrants	The Procurement and Asset Management business application area consolidates the services required to support acquiring and Managing HIV/AIDS procurements. Currently the primary system supporting this effort is NMS A&A with the assistance/integration of ProDoc (document management system). The current procurement improvement projects should look to leverage federal e Acquisition and eGrants work to facilitate putting these capabilities in place. This also addresses the OMB guidance by leveraging the Quicksilver initiatives. Data access from procurement and asset management systems could be needed by other systems. Procurement and asset management systems need to be folded into Program architecture. This will give the HIV/AIDS Program access to procurement data for integration and give procurement systems access to other services throughout the infrastructure.

Core Infrastructure Services	As-Is Application	USAID Initiatives	Assessment
External Transaction/Data Exchange Processor			Build a data exchange service. Develop a predefined interface allowing linked applications to exchange data with Agency applications.
Real Time			Currently Agency supports many of these services such

Core Infrastructure Services	As-Is Application	USAID Initiatives	Assessment
Communication			as telephony, instant messaging, and Video/audio conferencing.
Search			Currently search services are provided by the Agency. Emphasis on taxonomy and data structure will need to be addressed especially in regards to the knowledge management.
Messaging Service			Several messaging services are supported by the Agency. Secure (over USAID network) instant messaging service could be a cost effective method to increase collaboration and communication between Agency employees (domestic/overseas).
Reporting (Predefined & Ad-Hoc)	Crystal Report	EIS (management reporting)	Need to generate a reporting service which can support generating reports for HIV/AIDS Program stakeholder and executives.
Support Public Queries			Need additional services to compliment suite of services to support information requests from the Agency employees and customers. For example, need service to track queries. This includes documenting the actual query, point of contact, date and time information etc.
USAID Public Access	www.usaid.gov		Currently being provided
Access & Security			Develop a centralized security infrastructure consistent with eAuthentication, and supports authentication, encryption, auditing, intrusion detection, and certificate management.
Workflow Processor			Develop a workflow processor capability that supports the HIV/AIDS Strategic Planning and Budgeting business process.
Rules Processor			Investigate development of a service that allows data manipulation based on predefined rules.
Process Controller/Scheduler			Develop a service to support event-based process execution.
Integration Manager			Continue to investigate use of WebSphere.
Audit Logging			Develop non-intrusive service for tracking and recording transactions which are stored in one repository.
Directory Processor			Need to investigate further
Report Processor	Crystal Enterprise		Institutionalize Crystal Enterprise as the USAID report processor.
Content Manager			Continue to investigate use of WebSphere.
Document/Records Management	Documentum		Institutionalize Documentum as the document/records management solution for USAID. Expose functionality through a web services framework.

Core Infrastructure Services	As-Is Application	USAID Initiatives	Assessment
Data Aggregation/ Translation			Develop suite of services to support the process information gathering and dissemination. Continue to investigate use of data mart
Database Access and Control	Oracle, SQL Server		Currently being provided.

Enabling IT Service	As-Is Application	USAID Initiative	Assessment
Service Level Management			Develop service suite to support set of capabilities to manage service levels for IT. For example, a service that monitors "up-time" for an application based upon contractors SLA.
Change Management			Develop service to support capabilities to establish and execute automation when changes are made in the IT infrastructure (roll back).
Configuration Management			Investigate current configuration management services available to HIV/AIDS Program.
Security Risk Management			Enforce and continue using ISSO standards, assessments, and guidance.
Contingency Management			Develop set of capabilities for planning and execution of contingency IT operations.
Infrastructure/ Operations			Investigate USAID capabilities to manage and operate IT infrastructure for HIV/AIDS Program.
Program Management			
Backup & Recovery			Investigate backup & recovery services for HIV/AIDS Program
Software Management			Investigate services that record and maintain software licensing data and automated software distribution.
Service Support			Develop services to support IT users of new application and services. Investigate and continue supporting current IT service support.
Data Management			Investigate and enforce current data management services and extend to HIV/AIDS Program. Develop and disseminate data standards, data exchange rules, and policies & procedures regarding data.
Collaboration Services	MS Outlook		Investigate additional services which can be used to increase collaboration (domestic/ overseas)
Investment Management			Investigate investment management services currently used and align with PMO efforts.

Appendix A: FEA PMO SRM Alignment for Existing Applications

The following tables represent the complete FEA PMO SRM. The suite of applications reviewed covers a portion of the SRM. The SRM Components not addressed by the suite of applications have the application reference cell remaining blank. USAID extensions to the FEA PMO SRM are identified by an asterisk.

Customer Services The Set Of Capabilities That Are Directly Related To The End Customer, The Interaction Between The Business And The Customer, And The Customer-Driven Activities Or Functions		
Service Type	**Component**	**Application Reference**
CUSTOMER RELATIONSHIP MANAGEMENT	Call Center Management	
	Customer Analytics	
	Sales and Marketing	
	Product Management	
	Brand Management	
	Customer / Account Management	
	Contact Management	
	Partner Relationship Management	
	Customer Feedback	
	Surveys	
CUSTOMER PREFERENCES	Personalization	
	Subscriptions	
	Alerts and Notifications	
	Profile Management	
CUSTOMER INITIATED ASSISTANCE	Online Help	
	Online Tutorials	
	Self-Service	
	Reservations / Registration	
	Multi-Lingual Support	
	Assistance Request	
	Scheduling	

Process Automation Services The Set Of Capabilities That Support The Automation Of Process And Management Activities That Assist In Effectively Managing The Business		
Service Type	**Component**	**Application Reference**
TRACKING AND WORKFLOW	Process Tracking	
	Case / Issue Management	
	Conflict Resolution	
ROUTING AND AUTOMATION	Inbound Correspondence Management	
	Outbound Correspondence Management	

BUSINESS MANAGEMENT SERVICES The set of capabilities that support the management and execution of business functions and organizational activities that maintain continuity across the business and value-chain participants		
Service Type	**Component**	**Application Reference**
MANAGEMENT OF PROCESS	Change Management	
	Configuration Management	
	Requirements Management	
	Program / Project Management	
	Governance / Policy Management	
	Quality Management	
	Business Rule Management	
	Risk Management	
ORGANIZATIONAL MANAGEMENT	Workgroup / Groupware	
	Network Management	
INVESTMENT MANAGEMENT	Strategic Planning & Management	OPIN
	Portfolio Management	
	Performance Management	
	Budgeting (*)	Field Support Database
SUPPLY CHAIN MANAGEMENT	Procurement	
	Sourcing Management	
	Catalog Management	
	Ordering / Purchasing	
	Invoice / Requisition Tracking and Approval	
	Storefront / Shopping Cart	
	Returns Management	

BUSINESS MANAGEMENT SERVICES The set of capabilities that support the management and execution of business functions and organizational activities that maintain continuity across the business and value-chain participants		
Service Type	**Component**	**Application Reference**
THIRD PARTY SERVICES (*)	Solicitation Development (*)	NMS A&A Documentum
	Offering Response Management (*)	NMS A&A
	Award Management (*)	NMS A&A Documentum
	Dispute Resolution (*)	NMS A&A
	Performance Management (*)	NMS A&A Documentum Crystal Reports ProDoc Annual Report Database

DIGITAL ASSET SERVICES The set of capabilities that support the generation, management and distribution of intellectual capital and electronic media across the business and extended enterprise		
Service Type	**Component**	**Application Reference**
CONTENT MANAGEMENT	Content Authoring	
	Content Review and Approval	
	Tagging and Aggregation	
	Content Publishing and Delivery	
	Syndication Management	
DOCUMENT MANAGEMENT	Document Imaging and OCR	Documentum
	Document Referencing	
	Document Revisions	Documentum
	Library / Storage	Documentum
	Document Review and Approval	Documentum
	Document Conversion	
	Indexing	
	Classification	
KNOWLEDGE MANAGEMENT	Information Retrieval	
	Information Mapping / Taxonomy	
	Information Sharing	OPIN DOLPHN
	Categorization	
	Knowledge Engineering	
	Knowledge Capture	
	Knowledge Discovery	

DIGITAL ASSET SERVICES The set of capabilities that support the generation, management and distribution of intellectual capital and electronic media across the business and extended enterprise		
Service Type	**Component**	**Application Reference**
	Knowledge Distribution and Delivery	OPIN DOLPHN
RECORDS MANAGEMENT	Record Linking / Association	
	Document Classification	
	Document Retirement	
	Digital Rights Management	

Business Analytic Services The Set of Capabilities That Support The Extraction, Aggregation And Presentation Of Information To Facilitate Decision Analysis And Business Evaluation		
Service Type	**Component**	**Application Reference**
ANALYSIS AND STATISTICS	Modeling	
	Predictive	
	Simulation	
	Mathematical	
	Structural / Thermal	
	Radiological	
	Forensics	
	Population and Health (*)	DOLPHN
	Demographics (*)	DOLPHN
VISUALIZATION	Graphing / Charting	
	Imagery	
	Multimedia	
	Mapping / Geospatial / Elevation / GPS	
	CAD	
BUSINESS INTELLIGENCE	Demand Forecasting / Management	
	Balanced Scorecard	
	Decision Support and Planning	OPIN
	Data Mining	
REPORTING	Ad Hoc	
	Standardized / Canned	
	OLAP	

Back Office Services The Set Of Capabilities That Support The Management Of Enterprise Planning Transactional-Based Functions		
Service Type	**Component**	**Application Reference**
DATA MANAGEMENT	Data Exchange	
	Data Mart	
	Data Warehouse	
	Meta Data Management	
	Data Cleansing	
	Extraction and Transformation	
	Loading and Archiving	
	Data Recovery	
	Data Classification	
HUMAN RESOURCES	Recruiting	
	Resume Management	
	Career Development and Retention	
	Time Reporting	
	Awards Management	
	Benefit Management	
	Retirement Management	
	Personnel Administration	
	Education / Training	TrainNet
	Health and Safety	
	Travel Management	
FINANCIAL MANAGEMENT	Billing and Accounting	Phoenix e-Focus
	Credit / Charge	Phoenix
	Expense Management	Phoenix MACS MAL e-Focus GHED FTS
	Payroll	

Back Office Services The Set Of Capabilities That Support The Management Of Enterprise Planning Transactional-Based Functions		
	Payment / Settlement	Phoenix MACS MAL e-Focus
	Debt Collection	Phoenix e-Focus
	Revenue Management	Phoenix e-Focus
	Auditing	Crystal Reports ProDoc Annual Report Database
	Activity – Based Management	
	Currency Translation	
	Financial Reporting	Phoenix Crystal Reports GHED FTS
	Budget Execution (*)	Phoenix Field Support Database GHED Red-Light, Green-Light Africa OYB Spreadsheet
ASSETS / MATERIALS MANAGEMENT	Property / Asset Management	
	Asset Cataloging / Identification	
	Asset Transfer, Allocation, and Maintenance	
	Facilities Management	
	Computers / Automation Management	
DEVELOPMENT AND INTEGRATION	Legacy Integration	
	Enterprise Application Integration	
	Data Integration	
	Instrumentation and Testing	
	Software Development	
HUMAN CAPITOL / WORKFORCE	Resource Planning and Allocation	

Back Office Services The Set Of Capabilities That Support The Management Of Enterprise Planning Transactional-Based Functions		
MANAGEMENT	Skills Management	
	Workforce Directory / Locator	
	Team / Organization Management	
	Contingent Workforce Management	
	Workforce Acquisition / Optimization	

Support Services The Set Of Cross-Functional Capabilities That Can Be Leveraged Independent Of Service Domain Objective Or Mission		
Service Type	**Component**	**Application Reference**
SECURITY MANAGEMENT	Identification and Authentication	
	Access Control	
	Encryption	
	Intrusion Detection	
	Verification	
	Digital Signature	
	User Management	
	Role / Privilege Management	
	Audit Trail Capture and Analysis	
COLLABORATION	Email	
	Threaded Discussion	
	Document Library	Documentum
	Shared Calendaring	
	Task Management	
SEARCH	Query	
	Precision / Recall Ranking	
	Classification	
	Pattern Matching	
COMMUNICATION	Real Time / Chat	
	Instant Messaging	
	Audio Conferencing	
	Video Conferencing	

Support Services The Set Of Cross-Functional Capabilities That Can Be Leveraged Independent Of Service Domain Objective Or Mission		
Service Type	**Component**	**Application Reference**
	Events / News Management	
	Community Management	
	Computer / Telephony Integration	
SYSTEMS MANAGEMENT	License Management	
	Remote Systems Control	
	System Resource Monitoring	
	Software Distribution	
FORMS MANAGEMENT	Forms Creation	
	Forms Modification	

Appendix B: FEA PMO TRM Alignment for Existing Applications

Service Access And Delivery TBD		
Service Category	**Standard**	**Specification**
ACCESS CHANNELS	Web Browser	IE
	Wireless / PDA Device	
	Collaboration / Communication	
	Other Electronic Channels	URL, Web Service
DELIVERY CHANNELS	Internet, Intranet	Internet, Intranet
	Extranet	
	Peer to Peer (P2P)	
	Virtual Private Network (VPN)	VPN (mission access)
SERVICE REQUIREMENTS	Legislative / Compliance	Section 508, Privacy Act
	Authentication / Single Sign-On	Login & Password
	Hosting	Internal, External
SERVICE TRANSPORT	Network Services	Active Directory
	Transport	TCP/IP, FTP, HTTP

SERVICE PLATFORM AND INFRASTRUCTURE TBD		
Service Category	**Standard**	**Specification**
SUPPORT PLATFORMS	Wireless / Mobile	
	Platform Independent (J2EE)	J2EE, JRun
	Platform Dependent (.NET)	Visual Basic 6, Cold Fusion, MS Access
DATABASE / STORAGE	Database	Oracle 8 & 9, VSAM, SQL Server, Postgress SQL
	Storage Devices	
DELIVERY SERVERS	Web, Media	IIS, Apache
	Application	JRun, Documentum, Crystal Enterprise Server,
	Portal	
SOFTWARE ENGINEERING	Integrated Development Environment (IDE)	
	Software Configuration Management (SCM)	
	Testing Management, Modeling	
HARDWARE / INFRASTRUCTURE	Servers / Computers	Intel (Windows), IBM RS6000 (AIX), Sun Ultra (Solaris)

SERVICE PLATFORM AND INFRASTRUCTURE TBD		
Service Category	**Standard**	**Specification**
	Embedded Technology Devices	
	Peripherals	
	WAN, LAN	T1, VSAT, Vines
	Network Devices / Standards	
	Video Conferencing	

Component Framework TBD		
Service Category	**Standard**	**Specification**
SECURITY	Certificates / Digital Signatures	
	Supporting Security Services	
DATA INTERCHANGE	Data Exchange	Momentum API, Flat file,
PRESENTATION / INTERFACE	Static Display	Oracle Forms, Terminal Emulation
	Dynamic Server-Side Display	JSP, CSP, ASP
	Content Rendering	HTML, DHTML, CFML
	Wireless / Mobile / Voice	
BUSINESS LOGIC	Platform Independent	PL*SQL, JAVA, CSP, Pervasive SQL, Delphi, ASP, Postgress SQL
	Platform Dependent	Accu Cobal, Visual Basic 6,
DATA MANAGEMENT	Database Connectivity	ODBC, Net*8, JDBC
	Reporting and Analysis	

Services Interface And Integration TBD		
Service Category	**Standard**	**Specification**
INTEGRATION	Middleware	
	Database Access	PL*SQL, Postgress API
	Transaction Processing	Tuxedo
	Object Request Broker	COM/DCOM
INTEROPERABILITY	Data Format / Classification	
	Data Types / Validation	
	Data Transformation	
INTERFACE	Service Discovery	
	Service Description / Interface	Momentum API, Postgress API

Appendix C: References and Interviews

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Key interviews were conducted with individuals from the following organizations:

Organization
AFR/DP/PAB
CDIE/DI/DEC
Development InfoStructure (devIS)
M/IRM
M/IRM/SDM
M/OP/CIMS
M/OP/PS
M/OP/PS/OCC
PHNI Project
PPC/DEI/DIS
PPC/P

Appendix D: Knowledge Descriptions

Current HIV/AIDS Funding - Knowledge of the current funding for HIV/AIDS activities.

Current HIV/AIDS Strategies – An understanding of the prevalent HIV/AIDS technical strategies reflecting USG, GAC and Agency guidance.

External Guidance – Familiarity with guidance provide to OHA, in its Oversight role, by organizations and entities external to OHA.

GAC and Agency Budget Direction – Knowledge of guidance provided to the Operating Unit by the GAC and the Agency. This will be reflective of guidance provided to the Agency by OMB.

GAC and Agency Mission and Goals – An understanding of Agency and GAC management and performance objectives.

Governance Model – An understanding of the organization structure including roles, responsibilities, chain of command and accountability.

HIV/AIDS Technical Knowledge – Thorough medical, clinical and intervention knowledge related HIV/AIDS.

Industry Leading Practices – Familiarity with best practices employed by other programs and organizations in managing HIV/AIDS related activities.

Local Conditions and Needs – A thorough familiarity of the local HIV/AIDS situation and an understanding of steps required to provide adequate interventional support.

Operational Guidance – Knowledge of the management and technical guidance provided to Operating Units by OHA Oversight. This guidance will reflect Executive Guidance provided to OHA by external entities.

Partner Capabilities – A knowledge of the resources and services available from a given partner or team of partners.

Planned HIV/AIDS Appropriations – Knowledge of the anticipated future funding for HIV/AIDS activities.

Policies and Procedures – An understanding of the OHA Policies and Procedures Governing HIV/AIDS activities.

Previous Activities – Historical knowledge related to a given program or activity and to activities similar to the activity in question.

Program Budget Guidance - Knowledge of guidance provided to the OHA by the GAC and OMB.

Program Management Information – Detailed knowledge of the various types of management and technical information generated by an HIV/AIDS program or activity.

Program Management Performance Criteria – Familiarity with the standards and metrics used to measure the effectiveness of a program's performance.

Program Mission and Goals – An understanding of the fundamental purpose for the implementation of a program or activity and how they relate to and impact the day-to-day operating objectives and performance goals.

Program Operating Environment – Familiarity with the general circumstances, issues, situation and location of a given activity.

Program Policies and Procedures – see *Policies & Procedures*

Program Results – The information generated by a specific program or activity indicating achievements as well as financial and technical performance against established standards.

Program Standards – An understanding of the policies, procedures, guidance and management / performance metrics established for the oversight and implementation of HIV/AIDS related activities.

Resource and Service Usage – Knowledge related to the availability and application of resources and services.

Standard Reporting Formats – Familiarity with the general format and informational contents of standard electronic or manual reports.

Target Audience – An understanding of the makeup, expectations and needs of a group for whom a service or information will be provided.

Technical Performance Indicators – Familiarity with the set of indicators applied to program technical performance measures, across all activities, in order to gauge the effectiveness of the activity.

Technical Performance Metrics – Familiarity with the values, applied to the Technical Performance Indicators, that indicate level of performance effectiveness.

Appendix E: Acronym List

A&A	Acquisition and Assistance
AFR	Africa Bureau
ACO	Administrative Contracting Officer
ACS	Accounting Classification Structure
ADS	Automated Directive System
AIDAR	USAID Acquisition Regulation
AMS	American Management System
AO	Assistance Officer
AP	Accounts Payable
ARS	Accrual Reporting System and Annual Reporting System
AWACS	Agency World Wide Accounting Control System
B	Budgeting
BBS	Bureau Budget Submission
BPA	Business Process Area
BRM	Business Reference Model
CBJ	Congressional Budget Justification
CCB	Change Control Board
CDC	Center for Disease Control and Prevention
CFS	Consolidated Financial Statement
CIP	Capital Investment Planning
CO	Contracting Officer
COTR	Contracting Officer Technical Representative
CPIC	Capital Planning Investment Control
CTO	Cognizant Technical Officer
DB	Database
DHHS PMS	Department of Health and Human Services Payment Management System
DoD	Department of Defense
DRM	Data Reference Model
DS	Data Store
EA	Enterprise Architecture
ECS	Electronic Certification System
EPS	Electronic Payment Schedule
FAR	Federal Acquisition Regulations
FBO	Faith Based Organization
FEA	Federal Enterprise Architecture

FEAF	Federal Enterprise Architecture Framework
FFMIA	Federal Financial Management Improvement Act
FM	Financial Management
FMFIA	Federal Management Financial Integrity Act
FTE	Full Time Equivalent
FY	Fiscal Year
GAC	Global Health Coordinator
GFATM	Global Fund to Fight AIDS, Tuberculosis, and Malaria
GH	Global Health Bureau
GL	General Ledger
GMRA	Government Management Reform Act
GOALS	Government On-line Accounting Link System
GPRA	Government Relief & Result Act
GSA	General Services Administration
HHS	Health & Human Services
IA	Implementing Agency
ICASS	International Cooperative Administrative Support Services
IPAC	Intra-Governmental Payment and Collection
IRM	Office of Information Resources Management
IRS	Internal Revenue Service
JFMIP	Joint Financial Management Improvement Program
LOC	Letter of Credit
M	Management Bureau
MACS	Mission Accounting and Control System
MAL	MACS Auxiliary Ledge
MCA	Managerial Cost Accounting
MPE	Manage Portfolio Execution
MTCT	Mother to Child Transmission
NFC	National Finance Center
NGO	Non Governmental Agency
NIH	National Institutes of Health
NMS	New Management System
OE	Operating Expense
OHA	Office of HIV/AIDS
OP	Office of Procurement
OU	Operating Unit
OYB	Operating Year Budget

OMB	Office of Management and Budget
ORG	Organization
PB	Pillar Bureau
PEPFAR	President's Emergency Plan for AIDS Relief
PMS	Payment Management System
PO	Program Oversight
PPC	Policy and Program Coordination
PPMM	Program Performance, Management and Monitoring
PRM	Performance Reference Architecture
PSC	Personal Service Contractor
PVO	Private Voluntary Orginization
QA	Quality Assurance
RB	Regional Bureau
SBA	Small Business Administration
SCRM	Service Component Reference Model
SEED	Support for Eastern European Democracy
SGL	Standard General Ledger
SME	Subject Matter Expert
SO	Strategic Objective
SOW	Statement of Work
SP	Sub-processes
SRM	Service Reference Model
TCO	Terminating Contracting Officer
TIN	Taxpayer Identification Number
TOP	United States Treasury Offset Program
UN	United Nations
UNAIDS	United Nations AIDS
USAID	United States Agency for International Development
USDO	United States Disbursing Office
W	Washington
WHO	World Health Organization
W, N&E	Wants, Needs & Expectations