



**Business Technology Alignment
Support Tool Functional Requirements**

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Task Order #85
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Overview

The Business Technology Alignment (BTA) scope within the SFA Modernization effort focuses on supporting closer alignment of technology-related issues with business priorities, and the standardization and management of the SFA technical infrastructure. By implementing an Enterprise Architecture (EA) support tool, SFA will benefit in the following areas:

- ❑ Align business relevancy to technology-related decisions;
- ❑ Monitor budgetary controls;
- ❑ Improve communication effectiveness;
- ❑ Satisfy legislative compliance (Clinger-Cohen Act 5125(b)(2) Selection Phase).

This document contains the functional requirements that will be used to support selection of an EA tool.

Background

The SFA Business-Technology Alignment (BTA) initiative provides a repeatable process that aligns technology related decisions to business needs and priorities. It is also used to verify that new development efforts are following SFA's technology standards. The BTA process helps address risks of implementing solutions that do not follow enterprise technology standards, and that do not integrate or effectively support the business. Not following the enterprise technology standards poses a risk of increasing the complexity and cost of implementing and maintaining SFA's applications. Projects that incorporate non-standard SFA technologies may incur additional and unnecessary costs to test, integrate, maintain, operate and staff the solution.

Currently, SFA's business application architecture, technology architecture, infrastructure and standards documentation are maintained in an ad-hoc and unreliable fashion. Maintenance of these areas is reliant upon individual projects to ensure updates are applied in a consistent and timely manner. Impact assessments of technical changes to the environment are difficult to measure across business applications and can become costly to the organization. The impact of a change is often realized too late in the process to prevent unnecessary expenditure in re-aligning the impacted business applications and technologies.

A need for an EA support tool has been identified to support storage and maintenance of the architecture artifacts, and for conducting cross-project impact analysis and assessment. In addition, this will help SFA meet its cost reduction goals by providing visibility into areas of the architecture infrastructure where possible redundancy exists. It will provide a structure that will aid in the identification of infrastructure re-use, communicate an organizational awareness of integrating business capabilities into the environment, as well as drive and manage organizational initiatives.

Tool Requirements Overview

There are three main user groups for this tool:

- CIO EITM and Modernization Partner staff: for maintenance of the architecture, and communication of technical information in the context of business projects and applications;

- Project technical leads and staff: for access to technical standards and applications/projects architecture details;
- Business project leaders and staff (e.g. Architecture Working Group members): for identifying and documenting links between the business goals and the projects and applications

Functional requirements for an ideal EA tool have been defined and prioritized. The prioritized functionality will be used to identify the ‘best match’ products. It is expected that no single tool will provide all of the defined functionality.

The EA tool will support the following capabilities to satisfy the needs of the user groups:

- ❑ Technical Infrastructure Repository.
- ❑ Technical Architecture Management.
- ❑ Documentation and Reporting.

Technical Infrastructure Repository

The tool will be supported by a centralized data repository. This repository will contain the detailed information of each application and technical component supporting the Target State Vision. This inventory will be available for reporting and analysis purposes as well as for supporting simple asset management capabilities such as planned upgrades and retirement.

Technical Architecture Management

A capability is required to link a business capability to the Target State Vision and through to the application and infrastructure components. Changes made to any component will be automatically reflected throughout the architecture. The tool should also graphically support the architectural frameworks for each business application. The frameworks will enable technical users to conduct a detail infrastructure assessment of changes at all levels of the modernization architecture and also provide a direct link to the approved standards for each of the services defined within the framework.

Documentation and Reporting

The tool will have the capability to produce and publish both predefined and ad-hoc reports. These reports will be used for review and analysis purposes. Ad-hoc ‘What-if’ analysis reports will be produced to provide impact assessment information for business applications and infrastructure changes.

The tool will provide links (e.g. hyperlinks) to other documentation that is stored and maintained in other systems by other parts of the organization, e.g. project plans, organization charts, and other reference material. It is not planned that this tool will become a repository for such data.

APPENDICES

Appendix I: Functional Requirements

Appendix II: Meetings Summary

Appendix I: Functional Requirements Matrix

FUNCTIONAL REQUIREMENTS MATRIX

The table below illustrates the detailed functional requirements and priority for the EA support tool.

Technical Infrastructure Repository

Req# #	Requirement Description	High Priority	Medium Priority	Low Priority	Comments
TI-1	Provide a data repository to store information of individual technology components including the version level.	X			
TI-2	Provide for a GUI data entry mechanism to add and maintain information in the data repository		X		
TI-3	Support standard DBMS file types.	X			
TI-4	Ability to interface with the configuration management information.		X		
TI-5	Ability to store architecture elements.	X			E.g. Technical elements, object-oriented elements.

Technical Architecture Management

Req# #	Requirement Description	High Priority	Medium Priority	Low Priority	Comments
AM-1	Ability to organize individual technology components by business applications.	X			
AM-2	Web Enable the 2002 / 2004 Target State Vision (TSV).			X	This document is currently in PowerPoint.
AM-3	Ability to navigate through the TSV diagram and dynamically drill-down to the business applications.			X	
AM-4	Ability to navigate through the TSV diagram and dynamically drill-down to its technical infrastructure.		X		

Req# #	Requirement Description	High Priority	Medium Priority	Low Priority	Comments
AM-5	Provide links between business applications, project descriptions, and the technology infrastructure components within the TSV.	X			
AM-6	Provide links between business strategic goals and the applications.			X	
AM-7	Ability to construct layered architecture representations that include operational, system and technical perspectives.		X		
AM-8	Ability to follow SFA Technical Standards.	X			Includes ED Networking standards
AM-9	Ability to link the business strategy to the organizational elements.		X		(eg. Process and initiatives).
AM-10	Ability to link the organizational and investment management strategy to technology initiatives.			X	

Documentation and Reporting

Req# #	Requirement Description	High Priority	Medium Priority	Low Priority	Comments
DR-1	Retrieval and display of project documentation.	X			Provide access to documents in, potentially, other systems. (e.g. Project documents, etc).
DR-2	Provide ability to generate standard reports.	X			

Req# #	Requirement Description	High Priority	Medium Priority	Low Priority	Comments
DR-3	Provide ability to generate ad-hoc 'What-if' reports.		X		E.g. Cross-project impact analysis of a component change.
DR-4	Ability to access and download reports and documents.	X			E.g. Department organization charts, sequencing plans and reference materials held in other systems.

General

Req# #	Requirement Description	High Priority	Medium Priority	Low Priority	Comments
GE-1	Support standard text file types for content management.	X			
GE-2	Access TSV using a web browser.			X	
GE-3	Login authentication and authorization for maintenance activities.		X		
GE-4	Ability to provide a web-based user interface.		X		
GE-5	Ability to provide a graphical user interface.		X		
GE-6	Ability to import data from other tools or existing models.			X	E.g. Access, MS project
GE-7	Ability to conform to Section 508 Requirements.	X			
GE-8	Ability to support and monitor element's check-in and checkout.		X		Update and maintenance, of modules that reside within the EA tool.

Req# #	Requirement Description	High Priority	Medium Priority	Low Priority	Comments
GE-9	Ability to control/monitor system security and audit trail.		X		

Appendix II: Meetings Summary

MEETINGS SUMMARY

The table below documents the interviews and meetings that were conducted to collect the functional requirements.

Architecture Working Group (AWG)

Interviewee/ Discussion	Date	Summary of Meeting and Priorities (H/M/L)
Paul Stonner (Architecture Working Group Lead/SFA)	Dec. 17, 2001	Storyboard Version 2 demo graphically acceptable. High value tool. (H) Include information on level and timing future version upgrade plans in standards display screen
Paul Hill (Architecture Working Group/SFA)	Dec. 17, 2001	<ul style="list-style-type: none"> ❑ High value tool – but don't overwhelm users – simple functionality and build on acceptability ❑ Storyboard Version 2 TSV demo graphically acceptable – unclear on using TSV (BU don't care for it) ❑ Sequencing plan is only for current year – PMO plan is to build out future years <ul style="list-style-type: none"> • (M) Preference is to drive from Sequencing Plan • (H) Project level accessibility via eProject • (M) Organization by Business Unit • (H) Drill down/up capability • (H) Provide “What-if” analysis for impact of changes

SFA CIO

Interviewee/ Discussion	Date	Summary of Meeting and Priorities (H/M/L)
David Elliott (Technical Lead/SFA)	Dec. 14, 2001	<ul style="list-style-type: none"> ❑ Would like a ‘one stop’ area to find all of the technical materials. This tool can also be utilized for the learning curve of new people and projects. Would like to see training links in the tool as well. This would also free up some of the key SFA personnel who are the ‘go to’ people all of the time.
Denise Hill – (Program Director/SFA) Bill Bush (Technical Lead/SFA)	Dec. 17, 2001	<ul style="list-style-type: none"> ❑ Further discussion is necessary once agreement on scope of functional requirements within CIO is achieved and/or CIO owner/POC of this part of the TO decided. ❑ Bill would like to see more focus on top down business process models that show all levels identified in the Zachman Framework ❑ Denise is comfortable with the storyboard version 3 (Integration Plan). Entry point to tool is largely dependent on individual view. Could be TSV, Integration plan or simple list of systems/appl. organized along Business Unit lines

Bill Bush (Technical Lead/SFA)	Dec. 19, 2001	<ul style="list-style-type: none"> ❑ Need to Re-schedule. Further discussion is necessary once agreement on scope of functional requirements within CIO is achieved and/or CIO owner/POC of this part of the TO decided.
Kathryn Pirnia	Dec. 19, 2001	<ul style="list-style-type: none"> ❑ Currently still working on defining the data architecture, will likely have a clearer vision of requirements in late FY02. Will need a usable repository in place in FY04. ❑ The support tool for the data architecture may be a separate tool that integrates with the technical architecture support tool. ❑ Expected needs: <ul style="list-style-type: none"> • Data format standards; • Roadmap showing ownership of data (currently being defined) • Naming conventions • Mapping between data • Meta-data repository.
Ganesh Reddy- (Technical Lead ITA /SFA)	Dec. 20, 2001	<ul style="list-style-type: none"> ❑ Identified potentially three major user groups: ❑ EITM/CIO staff for maintenance of architecture; ❑ Technical project leads and staff for access to technical standards and other project architecture details; ❑ Business project leaders and project staff for seeing links between mission, business goals and projects. ❑ Functionality: <ul style="list-style-type: none"> • Links between business mission/goals and projects; • Repository for architecture standards and project technical data; • Technical components of solutions • Links to projects and infrastructure; • Particular projects to channel goals; • Focus should be on IT support of business and Clinger-Cohen compliance.

Mod Partner

Interviewee/ Discussion	Date	Summary of Meeting and Priorities (H/M/L)
Jeff Ross – (Project Technical Lead for FMS)	Jan. 8, 2002	<ul style="list-style-type: none"> <input type="checkbox"/> Ability to answer questions such as: <input type="checkbox"/> What is the enterprise standard for certain functionality, e.g. secure file transfer? <input type="checkbox"/> Is the technology currently in use at SFA? If not, what will the enterprise to-be standard be? <input type="checkbox"/> Functionality: <input type="checkbox"/> Default “go-to” product for specific functionality (H); <input type="checkbox"/> Approved products (what other systems are using); <input type="checkbox"/> Enterprise architecture guidelines <input type="checkbox"/> Web access is not an essential requirement
Alex Lefeur – (Technical Lead for Integrated Technical Architecture (ITA)	Jan. 9, 2002	<ul style="list-style-type: none"> <input type="checkbox"/> Ability to answer questions such as: <input type="checkbox"/> If we upgrade servers, which products will be impacted? <input type="checkbox"/> Which products are compatible with new version of server? <input type="checkbox"/> Functionality: <ul style="list-style-type: none"> • Products currently supported • Map projects with versions of products being used
Jacqueline Dufort/Matt Wilson (Project Leads for Portals	January 9, 2002	<ul style="list-style-type: none"> <input type="checkbox"/> Would like a ‘one stop shopping’ environment to see the various release schedules of all of the projects currently going on. In addition, would like to have access to an enterprise data dictionary and an organization chart for modpartner and SFA to have access for follow-up and impact analysis.

Vendors

Interviewee/ Discussion	Date	Summary of Meeting and Priorities (H/M/L)
Main Control Asset Management Software	October 15, 2001	<ul style="list-style-type: none"> <input type="checkbox"/> Demonstration by Main Control covering the design and major functionality of the product suite
Kintana Software	October 15, 2001	<ul style="list-style-type: none"> <input type="checkbox"/> Demonstration of Kintana, IS Organization Support software covering the design and major functionality of the product suite

Ptech Inc. (Software)	Dec. 19, 2001	<ul style="list-style-type: none">❑ Demo and Discussion by Ptech Framework and Infrastructure Accelerator❑ Ptech appears to meet high-level requirements – Requires Demo.❑ Framework and ITAA Approx \$30K❑ KM Gateway (needed for Web Access \$250K)❑ Consulting Services available \$1200 - \$1800 per day❑ Provided an Access DB to Ptech so a model can be build and demonstrated (Jan 02)❑ In use with Dept. of Ed (POC: Barry Stone OCIO 202-401-7510 e-mail (Barry.Stone@ed.gov)).❑ Demonstration scheduled for 01/16/02 with data provided in the Access database.
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