

FSA Modernization Partner
United States Department of Education
Federal Student Aid



EAI Quarterly Services Report
FY02 Q2

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1 Introduction

1.1 Summary

This report documents the progress made for EAI Release 3.0 (Task Order 80) in the period between December 21, 2001-March 29, 2002. In addition, it includes an overview of the current EAI Core Architecture, a Software Installation Report, materials presented at EAI Monthly Integration Meetings held during this period, and an organization chart and contact list for the EAI team.

Task Order 80 implements additional technical services, maintains the existing architecture, and provides assistance to business application teams in using EAI Core Architecture services. The long-term vision of FSA's EAI is to enable business applications to integrate/communicate with back-end systems via common, reusable services provided by EAI.

This report covers the following activities of the EAI team:

- EAI Architecture Overview- Provides an up-to-date view of the EAI Architecture as it evolves over the duration of the task order.
- EAI Core Services – Provides new infrastructure products, upgrades to existing products, and development of reusable practices for naming and programming standards.
- Development Integration Services - Provides guidance and support to application teams utilizing the capabilities provided by the EAI Core Architecture.
- Build and Test of Adapters and Components –Provides new adapters for additional FSA systems that have enterprise applications and data, and a component library containing reusable EAI components and functions.
- Software Installation Reports- Documents status of newly acquired software.



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- Communication – Facilitates the communication of the EAI strategy to all FSA Operating Partners and stakeholders through EAI Workshops and Monthly Integration Meetings.



2 EAI Architecture Overview

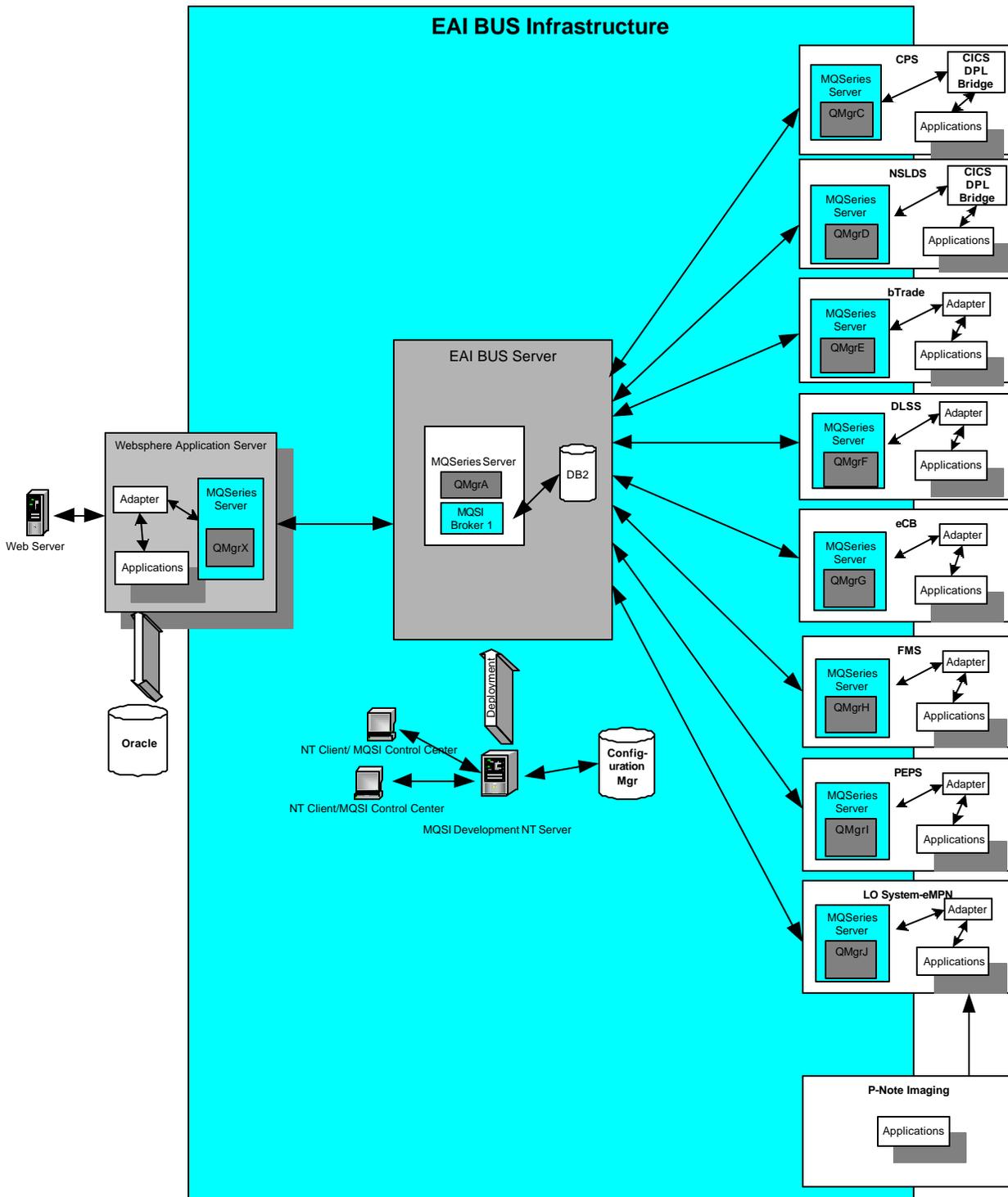
This section provides an overview of the EAI Architecture, including Release 1 and 2 legacy systems, interfaces to the legacy systems, and interfaces to FSA's Integrated Technical Architecture (ITA).

The FSA Enterprise Application Integration Core Architecture consists of the following four primary areas:

- Legacy Systems – Mainframe and Mid-Tier
- Internet – Websphere Application Server
- EAI Bus Servers
- EAI Development Workstations

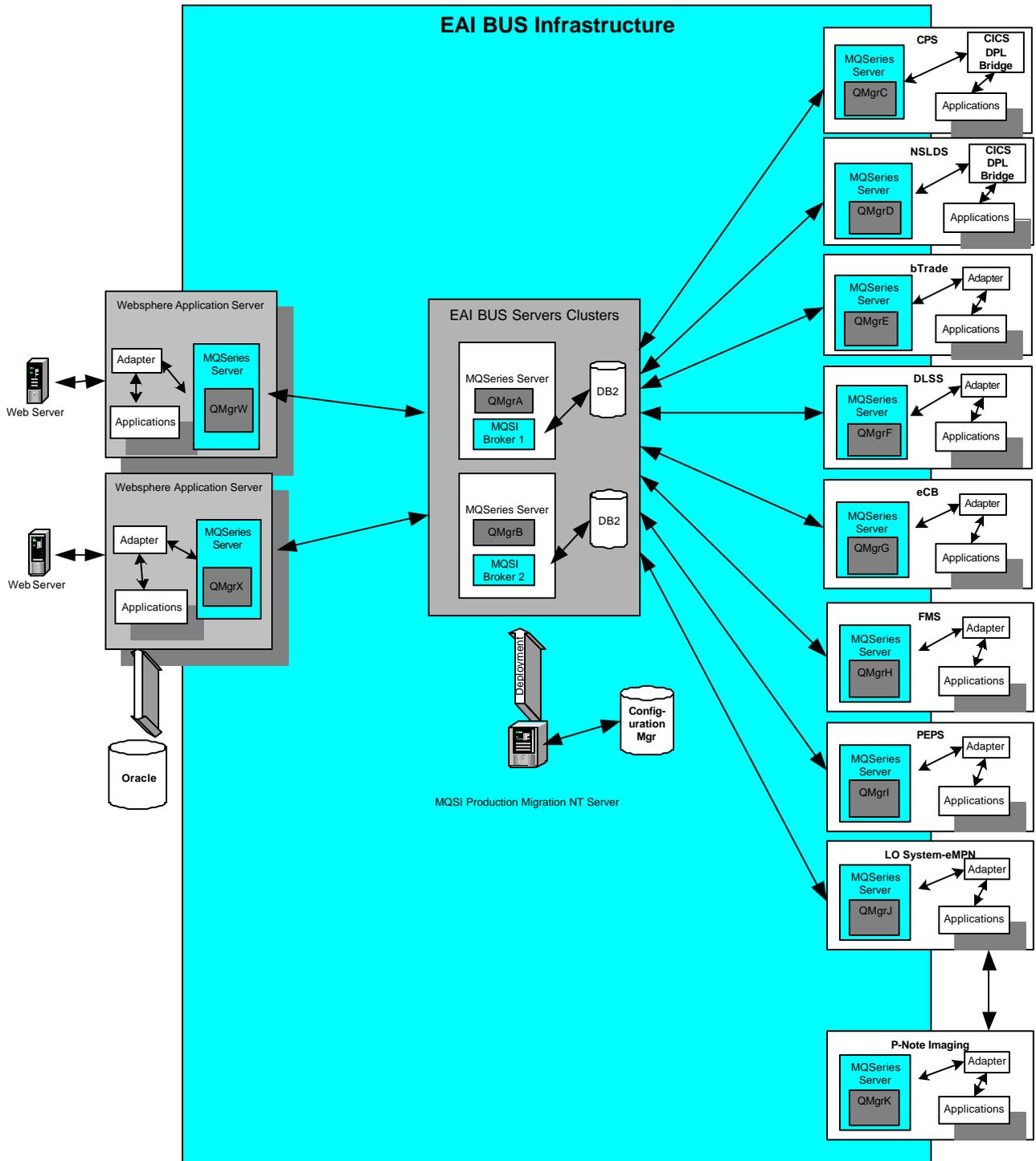


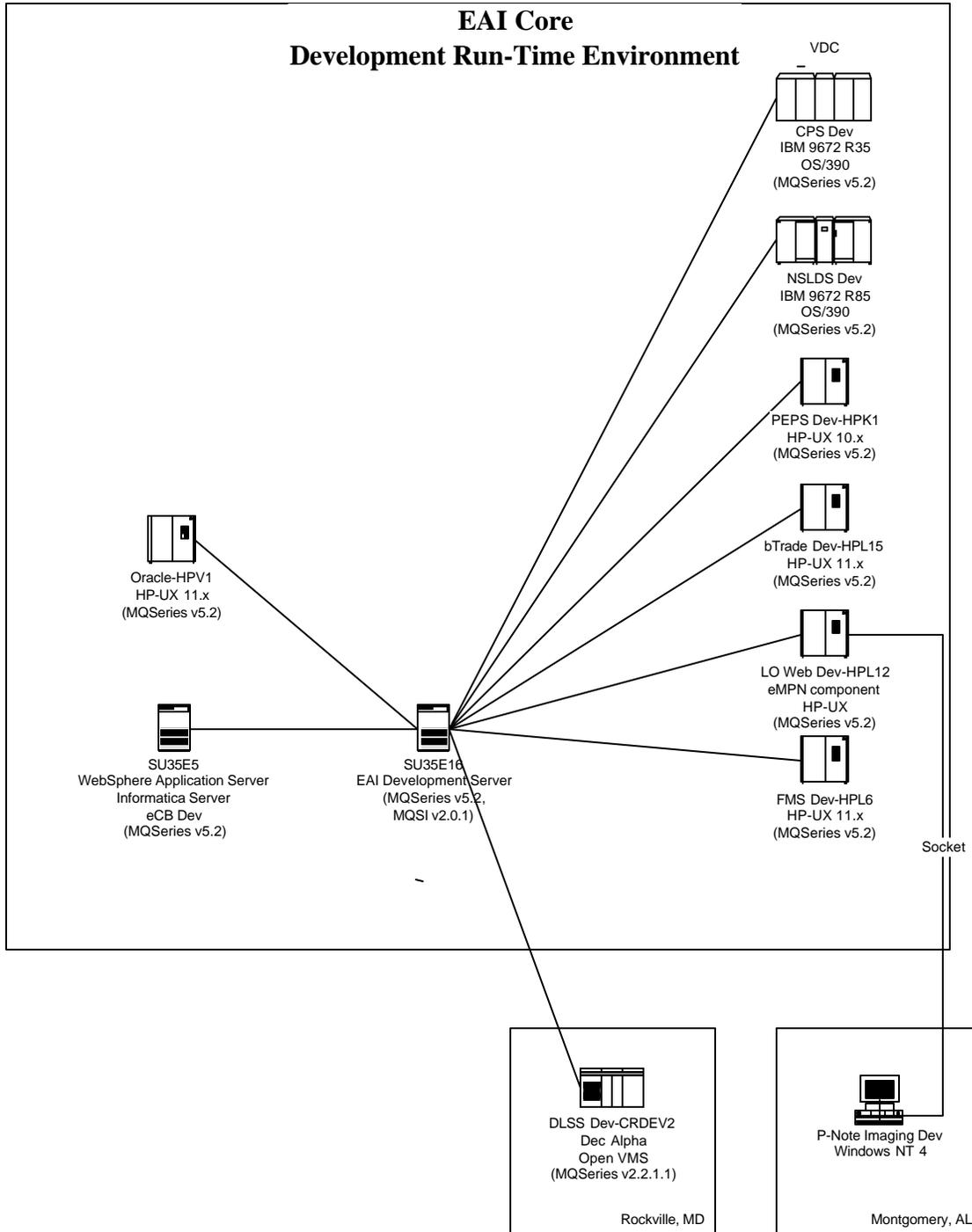
EAI BUS Architecture Overview (Development)



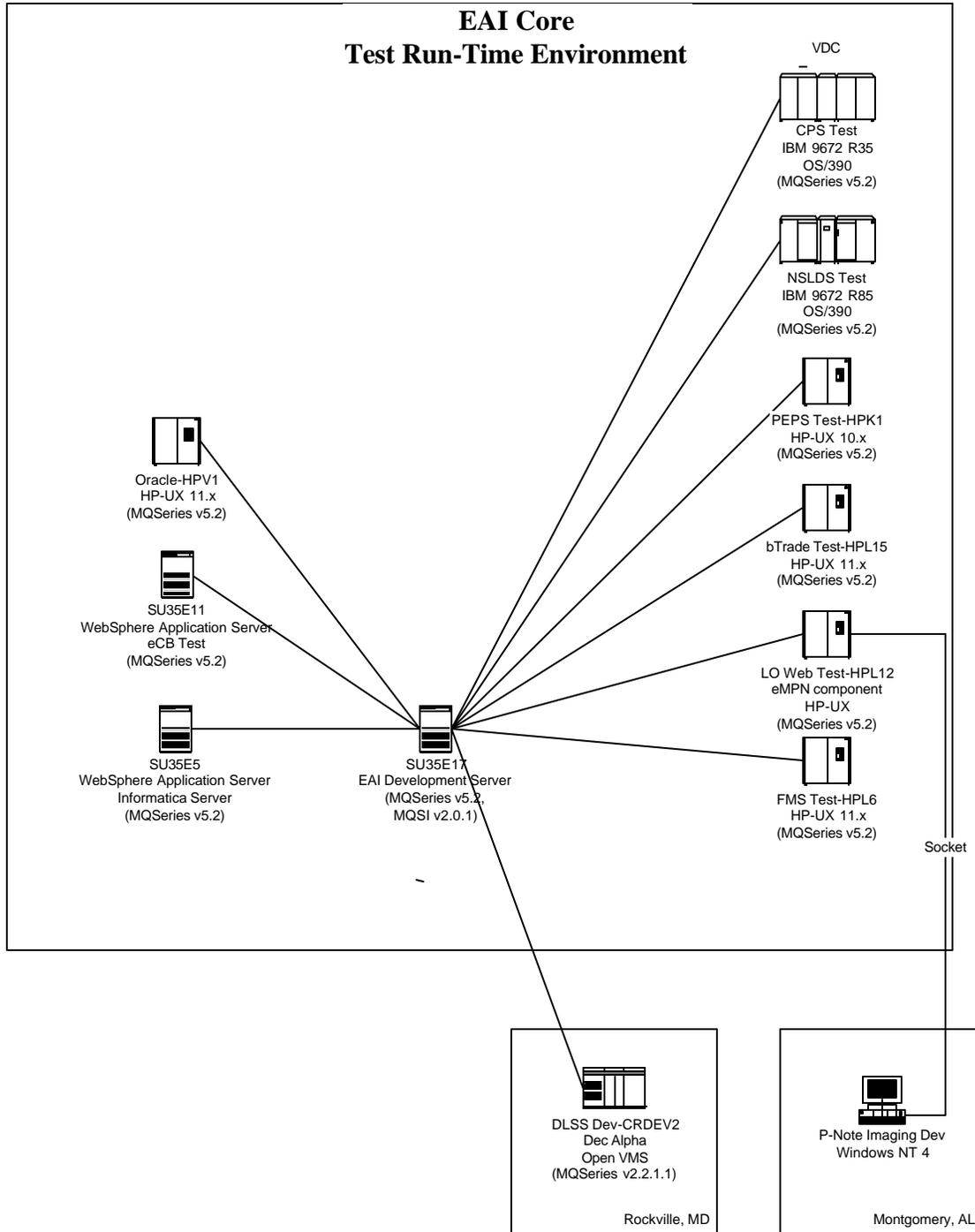


EAI BUS Architecture Overview (Production)

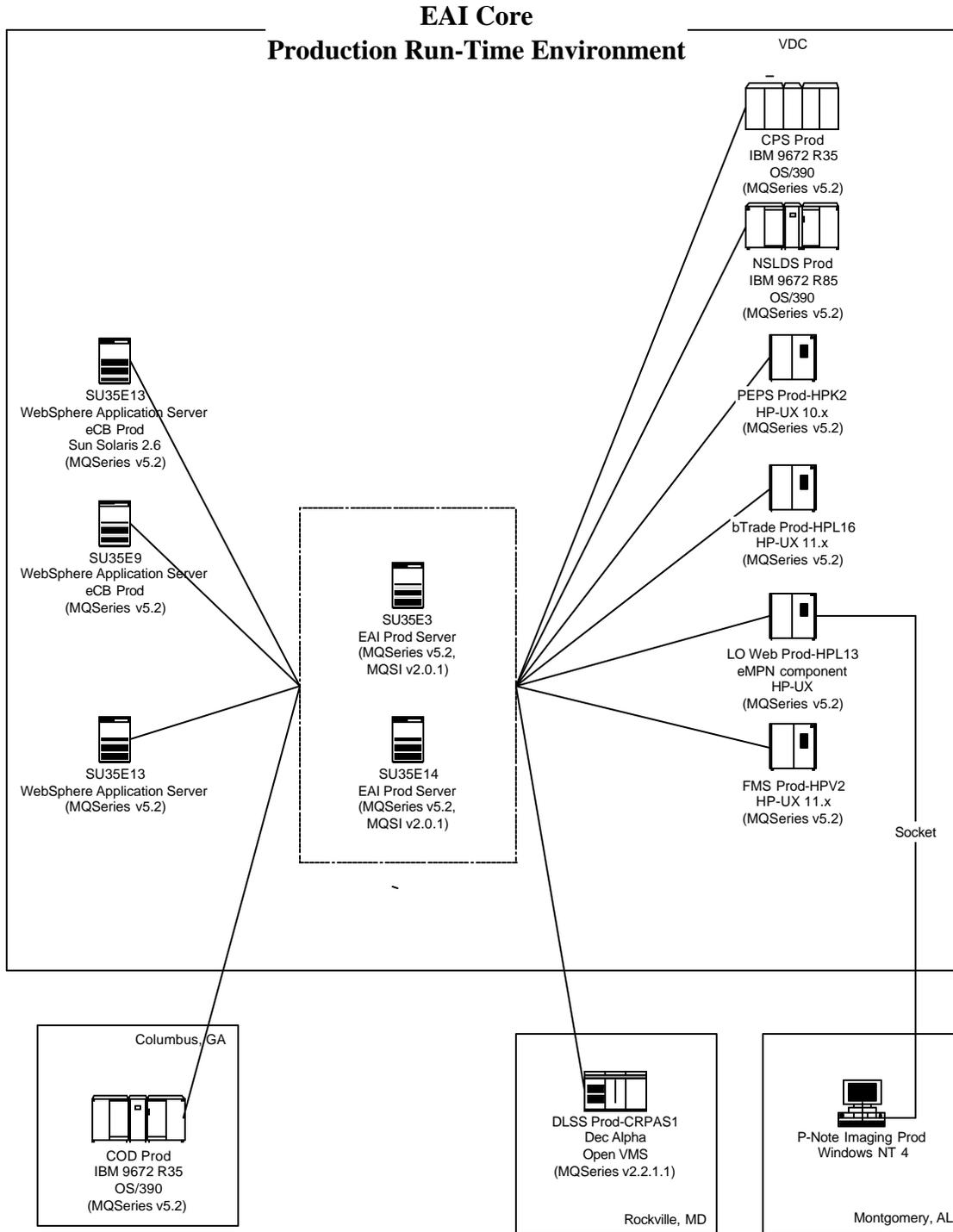




Last Updated 3/20/2002



Last Updated 3/20/2002



Last Updated 3/20/2002



3 Support Areas

During the first quarter of FY02, the EAI team provided technical support to FSA in the following areas:

- EAI Core Services
- Development Integration Services
- Build and Test of Adapters and Components
- Software Installation Report
- Communication

The following sections describe the specific tasks the EAI team performed in these support areas.

3.1 EAI Core Services

EAI Core Services includes the acquisition and installation of new infrastructure products, upgrades to existing products, and development of reusable practices for naming and programming standards.

3.1.1 Infrastructure

Products, which would enhance the already existing infrastructure, are being evaluated. Evaluation of Transaction Vision, a message tracing and MQ monitoring tool, is in progress. This tool can extend our monitoring capability to include MQSI as well as MQSeries, will expedite the resolution of any problems we experience with MQ and will help us in performance tuning transactional interfaces.

3.1.2 Upgrades

Upgrades of the EAI infrastructure are being performed to continue vendor support and to obtain enhancements provided by new releases.

Corrective Service Deliverables (CSD), or patches to MQSeries and MQSI, have been applied in the Development and Test environments. The CSD's were migrated into Production after testing.

Two IBM ServicePacs have been applied to MQSI to extend the existing functionality.



DLSS was not running MQSeries with the amount of memory IBM had recommended. As a result, IBM recommended that patches be applied to the OpenVMS operating system. The additional memory was ordered and installed, the patches were applied, and the memory kernel parameters were changed. The EAI team tested MQSeries and Data Integrator with these changes, and obtained ACS approval for installation on DLSS Production. MQSeries and Data Integrator are both running in DLSS Production.

3.1.3 Reusable Practices

Reusable practices are being updated to provide application teams with a guide for using the services provided by the EAI Core Architecture. During this quarter, a bug in the EAI Common Logging Component was detected and fixed.

3.2 Development Integration Services

This task provides guidance and support to application teams utilizing the capabilities provided by the EAI Core Architecture.

3.2.1 Program Architecture

Program architecture services recommend the EAI strategy for Modernization. The EAI strategy has been communicated through the EAI Monthly Integration Meetings (described in detail below). To ensure all applications follow the same architecture guidelines, EAI has developed a generic integration work-plan outlining the necessary steps to integrate with EAI.

3.2.2 Business Integration Support

Business integration support assists application teams in application interface design.

The EAI team worked with Financial Partners Data Mart (FPDM) and eServicing in gathering their application interface design requirements.

3.2.3 Technical Integration Support

Technical integration support assists application teams in application interface design using reusable EAI components and services.

The EAI team developed interfaces for the FPDM and eServicing Applications. This included the installation and configuration of MQSeries and Data Integrator, sizing estimates, and guidance in the creation of interface control documents (ICD) and Trading Partner Agreements (TPA)



3.3 Build and Test of Adapters and Components

This task provides development of application interfaces to the EAI Bus.

3.3.1 New Adapters

New adapters will be built for additional FSA systems that have enterprise applications and data. The selection of which adapters to build will be driven by the needs of the enterprise and the overall Modernization program.

3.3.2 Components

A centralized component library containing reusable EAI components and functions is being built for application teams. The design of the components is built to support reuse across business channels.

3.4 Software Installation Report

This report documents the status of newly acquired software including Data Integrator, MQSeries, MQSI. Please see the Software Installation Report included in Appendix A of this report.

3.5 Communication

3.5.1 Workshops

To facilitate communication of EAI accomplishments, capabilities and services, the EAI Core team will conduct six workshops over the duration of Task Order 80. No Workshops took place between December 21, 2001 and March 29, 2002.

3.5.2 EAI Monthly Integration Meetings

These meetings are held on the first Thursday of each month to give application teams the opportunity to discuss issues and raise questions about EAI integration. In addition, the EAI Core team reports its status and other relevant information.

On January 10, 2002 the EAI Core team successfully conducted its EAI Monthly Integration Meeting. Topics covered included high-level information on how to build an interface to the EAI bus, the current status of EAI, and examples of interfaces built during Release 1.0 and 2.0. This presentation is included in Appendix B of this report. The February 7, 2002 EAI



Integration Monthly Meeting Presentation is included in Appendix C of this report. This presentation featured a section describing EAI Business Functions.

The March 7, 2002 EAI Integration Monthly Meeting Presentation is included in Appendix D of this report. This presentation featured a section describing the EAI Operations Support Strategy.

On March 14, 2002 the EAI team held a follow-up working session to discuss the EAI Operations Strategy. The EAI team explained how they plan to provide Operations Support to applications using the EAI bus. FSA, CSC, ACS and application teams participated in this session. Attendees not only had the opportunity to learn how EAI operations affects them, but also to raise questions, or concerns. The entire EAI team, including subject matter experts, were available to clarify how the strategy will be implemented. This presentation is included in Appendix E.