techline

an FDsys update

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Master Integrator

On August 2, 2006 Harris Corporation was awarded a contract for Master Integrator (MI) services. An MI is a contractor responsible for collaborating with GPO to design, develop, and deploy the technologies and applications that will comprise FDsys. As the FDsys MI, Harris will integrate technologies and applications together to deliver a fully functional system. The MI will also assist GPO with system testing and training.

FDsys Capabilities by Release

The following section summarizes at a high level what functions and features will be included in the internal pilot release (1B) and the first public release (1C) of FDsys.

Release 1B: March 2007 (Internal prototype for testing)

The first system release will be a pilot of core capabilities. The primary purpose of this prototype is to validate that the correct selection has been made for the Content Management System (CMS) and other critical software components. The hardware will be scaled-down versions of the actual hardware that will be used to deploy the FDsys. The software components will be identical to those to be used in FDsys.

Capabilities that will be ready for internal testing at the end of Release 1B include the following:

- Ability for users to submit content and metadata to the system
- Creation, collection, and editing of content metadata using MODS
- Ability for users to access, search, and request content using a Web based user interface
- Capability to combine content and metadata into information packages
- Submission Information Packages (SIPs) to support ingest
- Archival Information Packages (AIPs) to support preservation
- Access Content Packages (ACPs) to support access, search, and request
- Dissemination Information Packages (DIPs) to support delivery to users

The Government Printing Office (GPO) is transforming from a print-centric agency to one that delivers Federal information products and services from a digital platform. The Future Digital System (FDsys) will enable GPO to manage content in digital form. This document contains current information on the status of FDsys development.

Release 1C: August 2007 (First public release)

Release 1C will be the first public release of FDsys. This release will build upon the capabilities of Release 1B. In addition, Release 1C calls for both a primary site and a geographically separated backup site. All content, metadata, and system functionality will be replicated from the primary site to the backup site.

Release 1C will include all the functionality of Release 1B, as well as the following capabilities:

- Creation, collection, editing, and sharing of content metadata supporting multiple standards including MARC and Dublin Core
- Basic authenticity and integrity checks on submitted content
- Verify that submitted content has not been altered
- Data exchange with GPO's Integrated Library System (ILS)
- Capability to search and deliver content
- Capability to recognize duplicate content
- Basic preservation processing by copying to new media (i.e. refreshment)

Release 2: Early 2008 (Enhancements)

Release 2 will extend the capabilities implemented during Release 1C. Release 2 will include all the functionality of Release 1C, as well as additional capabilities that will be outlined in future FDsys Updates.

Release 3: Late 2008 (Enhancements)

Release 3 will provide enhanced functionality to capabilities implemented during Release 2. Release 3 will include all the functionality of Releases 1C and 2, as well as additional capabilities that will be outlined in future FDsys Updates.

For a comprehensive discussion of system capabilities by release, please see the FDsys documentation at http://www.gpo.gov/projects/fdsys_documents.htm.

Current Projects

Harvesting Pilot

Both vendors have completed the third and final crawl of the EPA Web site. Team members from OCTO and Library Services and Content Management have developed a plan for next steps in testing technologies and methodologies for harvesting. The information from this pilot will assist GPO in selecting harvesting technologies for FDsys.

Integration of GPO's ILS

The GPO ILS Integration Team (Office of the Chief Technical Officer, Information Technology and Services, and Library Services and Content Management) completed their assessment of the capabilities and requirements required for basic integration of the ILS and FDsys. Basic integration requires that the two systems be capable of sharing data. Additional ILS functionality not yet implemented, such as MetaLib and SFX, are also planned for integration into FDsys.

Open Archival Information System (OAIS)

GPO will be providing comments for the OAIS Reference Model's Five Year Review, which ends in January. GPO's comments will focus on the need for a package such as the FDsys Access Content Package to be created in order to hold derivative content and allow more efficient access.

Vendor Capability Assessments

The FDsys team is identifying specific areas of technology that are a current priority, and has developed a process for technology discovery and research that more directly maps to FDsys development plans. Vendors are currently asked to submit capability statements for system functionality. These areas are:

- Search
- Enterprise Application Platform (EAP) – underlying Information Technology infrastructure needed to host FDsys applications; includes hardware and software components to provide computing, networking, storage, and operating system support consistent with FDsys requirements.
- Content Management Systems (CMS) – underlying software to support and track content throughout its information lifecycle within FDsys.

The capability statements allow vendors to describe how their products map to FDsys requirements out-of-the-box (i.e. before any customization). These submissions may lead to a face-to-face meeting with GPO to further discuss capabilities. GPO will also conduct trade studies to compare each vendor's overall fit with FDsys requirements.

Recent Presentations

Federal Depository Library Conference, October 2005 – Mike Wash provided an update to the library community on the phases and gates model being used for FDsys.

ICDCS – The PMO has established the Interagency Council for Digital Content Submission (ICDCS) for Federal agency customers. The goals of ICDCS are to validate FDsys requirements, uncover new requirements, stimulate communication between the various departments within agencies that may be affected by FDsys (print, Web, and IT departments), and provide opportunities for beta testing FDsys components and interfaces.

Special Libraries Association, June 2006 – GPO provided an overview of FDsys. GPO received questions about the term policy neutral, IT security concerns with the harvester, Title 44, visibility to search engines, documentation, OAI-PMH, the role of Federal depository libraries, and funding.

American Library Association, June 2006 – The FDsys team presented detailed content and transactional scenarios to the library community.

Depository Library Council, April 2006 – The FDsys team presented "A Day in the Life", which walked attendees through future scenarios for different types of librarians and how they will interact with the system on a day-to-day basis. ILS integration with FDsys was also discussed.

Digital Preservation in State Government: Best Practices Exchange 2006 – FDsys team members conducted sessions on the topics of preservation, web harvesting, and authentication initiatives in GPO, focusing on FDsys capabilities.
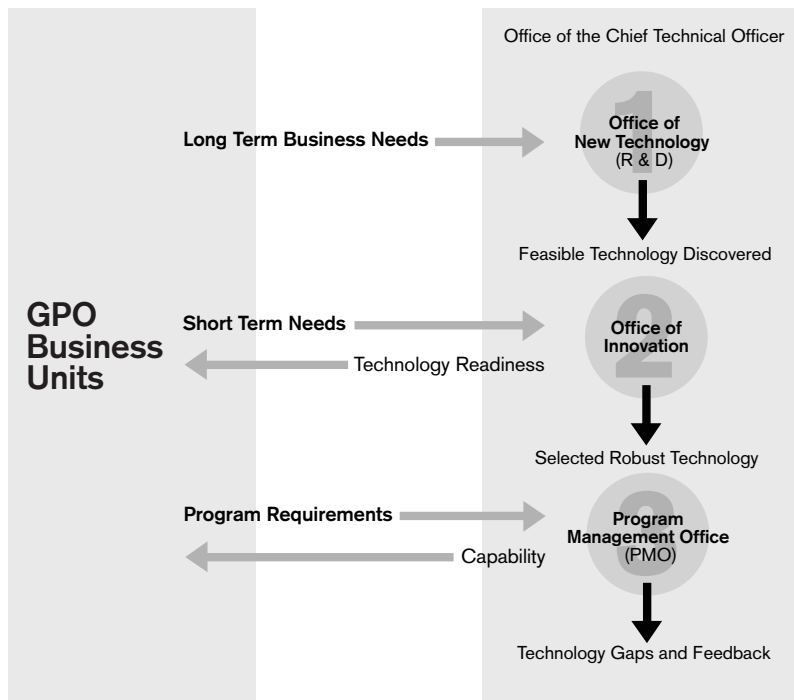
The FDsys team will also be attending:

iPRES (International Conference on Presentation of Digital Objects), October 2006 – GPO will be discussing preservation efforts.

Section 508 Coordinators Annual Conference, November 2006

CNI (Coalition for Networked Information), December 2006 Section 508 Coordinators Annual Conference, November 2006

Office of the Chief Technical Officer

The Office of the Chief Technical Officer (OCTO) is composed of three departments that work together to discover, select, and implement new technologies for GPO.

GPO Business Units

Office of the Chief Technical Officer

Long Term Business Needs →

1 Office of New Technology (R & D)

Feasible Technology Discovered

Short Term Needs →
← Technology Readiness

2 Office of Innovation

Selected Robust Technology

Program Requirements →
← Capability

3 Program Management Office (PMO)

Technology Gaps and Feedback

The Office of New Technology performs research and development and is guided by business requirements to discover emerging technologies relevant to GPO goals. **The Office of Innovation** studies these technologies in greater depth, mapping capabilities to specific GPO business needs. Robust technology that meets these needs is then referred to the **Program Management Office** (PMO) for integration into GPO systems.

The PMO structures programs that employ technology to deliver practical business solutions. The cycle of the functions of the three OCTO units is completed when the PMO identifies business needs that aren't sufficiently addressed by the technologies selected. These gaps are then communicated to the Office of New Technology, which adjusts its search and discovery process.

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