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Proposed IT Software

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RENEWS
COPYRIGHT OFFICE REENGINEERING UPDATE

IT Reengineering Approach

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In the October edition of *ReNews*, the Copyright Office announced that the IT (information technology) reengineering contract has been awarded to SRA International Inc. SRA key personnel arrived at the Office on Sept. 3 and are already meeting with process owners and other Office staff members to validate requirements that were provided to them in order to begin building a new IT systems infrastructure. SRA is teamed with subcontractors from Unisys, Datatrac Corporation, Endeavor Information Systems, Siebel, and Pinkerton Computer Consultants. There are currently eight SRA contract personnel on board full time. The IT team for reengineering is comprised of SRA key personnel, SRA's subcontractors, Copyright Office IT Project Manager Michael Burke, and IT process coordinators Loretta Freeman and Jerry Tuben.

PHOTO BY HELEN HESTER-OSSA & CHARLES GIBBONS

► *Members of the Receive Mail IT Task Group—[l to r] Alisha Armstrong, Kim Brown, Victor Holmes, and Kevin Fletcher*

The IT team will be working from a Project Management Plan that describes the management approach for the IT reengineering of the Copyright Office. The IT project will implement the seven reengineered business processes that were developed as part of the overall reengineering effort over the past several years and the non-BPR (business process reengineering) processes that include the Office of the Register, Office of the General Counsel, Office of Policy and International Affairs, Administrative Services Office, and the Publications Section of the Information and Reference Division.

The vision for the reengineered IT system is one that enables the Office to provide its services to the public online in a timely manner and manage its internal processes through a centralized case management system. Users of Copyright Office services can become direct participants in the Office's workflow processes, checking status of in-process service requests, supplying additional information, and resolving discrepancies. Key features of the system include:

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[*Left to right*] *Jannie Grant, Julia Huff, Katherine Scott, and Victor Holmes discuss reengineering issues.*

Intake Options

Electronic · The public will submit requests for services through a Web portal. The system will provide forms on the portal to capture data directly into Copyright Office Service Request (COSR) records in the case management system. The system will allow payment options (credit card or deposit account [DA]) through the Web. Users can also submit certain types of deposits as attached files. The system will provide a receipt to users for successful submissions.

Physical · The Office will image paper materials upon receipt. Intake staff will create a new COSR or connect files to an existing COSR in the case management system. Staff will apply barcodes to deposits and link all deposits to the COSR. All checks will be scanned and sent separately with batch reports and data.

Optical Character Recognition (OCR)

The system will apply OCR to capture certain data from image files. Check scanners will capture payment data from checks. Data from all images will populate COSRs in the system.

Workflow

The system is an integrated package of interoperable modules to support the cross- functional business processes. The system provides integrated access to information across departmental boundaries. Staff have desktop access to pertinent documents, including scanned images of paper mail, word processing documents created internally, host-generated statements, and email and faxes.

Data sharing

The system will support the import and export of data with other Library of Congress systems and external databases. The system will extract data from the COSR records to begin catalog records and provide data sharing across the Office and Library catalog systems.

Tracking deposits

The system will track the location and users associated with physical items associated with a COSR.

The IT team plans to build and implement the new IT systems and infrastructure through two releases with four build cycles. Release 1, the Initial Operating Capability, will incorporate three system build cycles organized around four tasks. Release 2, the Final Operating Capability,

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The Fiscal Year 2004 Legislative Branch Appropriations Bill was passed on Sept. 24, 2003. In the bill, Congress approved the Copyright Office's request for $2.1 million in new funding for IT (information technology) work related to reengineering. This funding allows the Office to continue contractor support to build its new IT systems infrastructure. ■

PHOTO BY HELEN HESTER-OSSA

will incorporate one system build cycle organized around three tasks. Throughout the builds, there will be periodic reviews with end users to show them system capabilities and get their feedback.

The IT contractor will use a spiral methodology for its software implementation. The spiral model is intended to help manage project risks. Using this model, the software developers will not define the entire system in detail at the start of their work; instead the IT team will define the highest priority features and implement these first. After this stage, the team will then get feedback from the Office and make adjustments in their development work. These reviews will permit the Copyright Office to look continually at system functionality and allow for managed changes to scope or direction over the life of the project.

Current Work

Since beginning this ambitious undertaking on Sept. 3, the IT team has completed Task 1, project definition, and is currently working on the second task. During the project definition task, the IT team focused on developing an understanding of the Office's newly designed business processes and the types of systems users, developing a high-level system design and a detailed design of screen flows for the new IT system. Task 2 is now underway and includes a detailed analysis of requirements, a more detailed system design, and the creation of the screens and screen flows.

The Office has formed task groups comprised of process owners and staff from each process area who are well acquainted with process needs to participate in user reviews of the system over the life of the project. The task groups began meeting regularly in mid-October.

Initial Operating Capability (IOC)

Task 3, which starts in December, is the longest and most complex of all tasks. It focuses on the development of workflows, the integration of various systems, and the configuration and customization of COTS (commercial off-the shelf) software components. When these tasks are completed, software developers will provide that portion of the IT system to the Office for review and testing.

Task 4 is a refinement process that is primarily focused on completing system configuration and integration. There are two major testing activities during Task 4: a system test and a user acceptance test. The system test is a set of end-to-end tests to ensure that functionality is implemented as expected. The user acceptance test is a complete test of all functionality to determine if the system is ready to go into production. This task is completed upon the Office's acceptance of the user acceptance test report and after all critical system defects identified during test-

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PHOTO, BACKGROUND BY CHARLES GIBBONS

Luke Beatty, SRA, facilitates a session with the Licensing IT Task Group.

[*Continued from inside*]

ing are addressed. At this point, the Initial Operating Capability, Release 1, is accepted by the Office. The expected release date is September 2004.

Task 5 includes planning, training, and implementing the first system release to Office staff. In this task, coordination takes place with the other reengineering fronts to develop an implementation plan, a transition plan, training materials, and an operations guide. The implementation plan and transition plan will identify the timelines for roll-out to end-users. The Office's trainers will be trained at this time and the system will undergo acceptance testing and will be deployed to the Office's staff.

Final Operating Capability (FOC)

Task 6 is the final build of the production deployment. This is an enhancement build, and covers further COTS enhancements and upgrades, and integration to the Library's financial system.

In Task 7, the final task, the system undergoes final acceptance testing and is deployed to the end users. This task also covers planning, training, maintenance, and support until the end of the contract. This deployment is called the Final Operating Capability and is expected to provide all required functionality to end users.

Building the new Copyright Office IT systems infrastructure is a complex undertaking. It will involve a lot of work from both Copyright staff and the SRA team. SRA is committed to bringing people on to the project as needed to ensure that all activities are staffed adequately. The Office has made that same commitment to have our staff available to ensure adequate input, review, and testing all the way through to implementation. ■

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Proposed Software for IT Reengineering

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An important factor in the decision to select an IT (information technology) Reengineering contractor was the software solution proposed to meet the needs of the Reengineering business objectives and information technology requirements. The Reengineering Program Office (RPO) staff considered several proposals from contractors.

The Office requires a software solution that supports the IT functions defined last year as part of the IT requirements analysis. The Office considered IT solutions that would provide a systems infrastructure that allows the Office to accomplish all the core system functions and meet its objectives to:

- Leverage information technology to increase the efficiency of the Copyright Office's business
- Allow for electronic processing of registrations and deposits, and, ultimately, of recordations
- Provide user-friendly Internet access to Office public records and information
- Provide administrative applications that increase Office productivity, including management of Office documentation
- Support the Office's policy and regulatory work by providing technology that will rapidly access current news and reference sources
- Allow for interoperability with other Library of Congress systems so that data can be shared

The Office selected a team that proposed two commercial-off-the-shelf (COTS) packages for its new IT system. The packages are Siebel Customer Relationship Management (CRM) / Case Management and Endeavor Library Management. Siebel CRM / Case Management is the CRM industry leader and will provide the Office with stable workflow capabilities as the main system used by our staff in the future. Endeavor Library Management will provide the Office with a seamless integration with the planned implementation of Endeavor's Catalog Management product, Voyager. Endeavor's software will provide a robust method for searching and managing digital objects received with Copyright Service Requests.

The Library's Information Technology Services (ITS) data center will maintain the servers that will operate the new IT system for the Copyright Office. ■