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TRIP REPORT

SUBJECT: TDOCS Meeting Trip Report  
20-5702-155

DATE/PLACE: March 3-4, 1994; NRC, Washington D.C.

AUTHOR(S): Rawley Johnson  
David Lincoln

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### BACKGROUND AND PURPOSE OF TRIP:

There were several related meetings on this trip over the two day period. The primary agenda items and attendees were as follows for each meeting:

1. TDOCS Technical Briefing and Status of Development (see attached list of attendees)
2. Management Discussion of the Integrated Development Schedule for RPD and TDOCS
3. Meeting with IRM on Internet Access for TDAS and NFS Access for TDOCS (also RPD)
4. DHLWM TDOCS Advisory Group Meeting

### SUMMARY OF PERTINENT POINTS:

Pertinent Points from each Meeting :

1. TDOCS Technical Briefing and Status of Development

The TDOCS technical briefing went well with over 20 staff from the NRC in attendance. The briefing charts and attendance list are attached to this trip report. Specific comments and questions were discussed as the briefing proceeded around the following major issues.

- a) ACRS Background
- b) Role of TDOCS
- c) TDOCS Major Requirements
- d) TDOCS Development Schedule
- e) TDOCS System Design Description
- f) TDOCS Loading and Operation
- g) TDOCS Implementation Planning at the NRC

## 2. Management Discussion of the Integrated Development Schedule for RPD and TDOCS

The meeting was held in Margaret Federline's office with Shirley Fortuna, Don Chery, Bob Carlson, Robert Johnson, and Rawley Johnson in attendance and Henry Garcia via teleconference in San Antonio. Margaret Federline had two questions as follows:

- (a) What software is being developed in an integrated manner for RPD and TDOCS and how does that affect the schedule?

Rawley Johnson responded that both systems are being developed using the same three major commercial products; i) Oracle, ii) Topic, and iii) Galaxy. The custom software modules that support common functions for between RPD and TDOCS, such as (i) the client server Remote Procedure Call (RPC) (ii) Header and configuration data for documents stored in Oracle with the Galaxy user interface and (iii) the full text and image loading and query of documents in Topic were mentioned as the primary overlapping modules in the integrated development schedule for RPD and TDOCS. The effect on the schedule is that both systems are dependent on the same core development staff, which consists primarily of three system analysts to install and test the three commercial products and develop the custom code for the three common modules, prior to others implementing the specific database design and user interfaces for RPD and TDOCS. In practice this means that about five or six analyst are working full time on both the common code and the specific code, but the critical path of the schedule is the installation and upgrading of the three products and the development of the three common modules.

- (b) What is the benefit of developing the systems using an integrated schedule?

Rawley Johnson responded that by using the three commercial products for both RPD and TDOCS, the investment in purchased software was minimized. Additionally, and even more critical to the CNWRA from a staffing standpoint is that the custom software that is common between RPD and TDOCS requires less overall effort when done by the same three analysts, than if it were split up and done separately for each system. Also by using the same three staff members there is assurance that more of the software will in fact be common between the two systems. Most importantly, it minimizes the need to maintain the full development staff, which ranges up to five or six during the peak development period in the integrated schedule, following implementation, since the primary expertise required for long term support is maintained in the core staff for out year modifications and operating support. Finally, the integrated schedule provides the shortest path for the development of both systems given the constraints already mentioned.

## 3. Meeting with IRM on Internet Access for TDAS and NFS Access for DHLWM Windows and UNIX Client Installations for TDOCS

Don Chery, Tom Sheffler (IRM), Peter Vu and Steve Smith (CEXEC), Bob Marshall, David Lincoln and Rawley Johnson met to discuss the Internet access approach supported by the DHLWM with the firewall security system recently installed by LLNL. The configuration was discussed and Richard Murphy (SWRI Div. 15) was included in the discussion via teleconference in San Antonio. Richard was able to get all of his questions answered in regard to DHLWM access via Internet for support of the TDAS Access Plan of DOE Technical databases.

Bob Marshall described the software and hardware configurations for the DHLWM Windows and Unix client installations for TDOCS. The issue of software protocols for the DHLWM access of the CNWRA TDOCS server was raised by IRM. Robert Marshall pointed out that the CNWRA was using a file transfer product called Chameleon. Tom Sheffler pointed out that the NRC was already committed to the purchase of a large number of TCP/IP software packages. Tom Sheffler also indicated that the security issues of the planned NFS access of the CNWRA Server for TDOCS would have to be evaluated by IRM. IRM plans to write up a meeting report on this aspect of the TDOCS design and implementation and include necessary direction to the CNWRA to assure that NRC security objectives are met for TDOCS implementation. The CNWRA will need to discuss any redirection on this issue with the NRC IRM after they receive and review the IRM meeting report.

#### 4. DHLWM TDOCS Advisory Group Meeting

The primary purpose of this meeting was to discuss the recently delivered TDOCS Design Plan and the status of development and implementation plans for both organizations with the DHLWM Advisory Group. The CNWRA representatives from the TDOCS development team (Rawley Johnson, Robert Marshall and David Lincoln) met with Shirley Fortuna and Don Chery from the DHLWM Advisory Group. The detailed agenda for the meeting and the pertinent points discussed were as follows:

- 1) Obtain feedback from the NRC reviewers about the TDOCS design plan and resolution of comments and questions concerning the plan.

The TDOCS design plan report has been officially accepted, however there are requests for additional clarifying information on the report itself. The acceptance letter will provide the specific comments and questions for the CNWRA response. The DHLWM will also request a more comprehensive system design for TDOCS that includes a server at White Flint. The design report should include additional detailed descriptions on the TDOCS hardware and software and LAN environment at both the CNWRA and the DHLWM.

- 2) Discuss header fields and document types and sets and request the TDOCS Advisory Group to confirm CNWRA recommended fields and provide any additional header fields they want to add for other document types and sets by March 25.

Don Chery pointed out a number of fields in TDI, QA, and CSP that he considered unnecessary and suggested that they be removed. In TDI, these include Subject Code, Subject, Abstract and Review. In QA, only Subject Code. In CSP, these include Subject Code, Contract Number, Enclosure and Concurrence. He also suggested that the field name "Submitter" be changed to "Custodian" in all three, and "Origin" be changed to "Submitter" in TDI.

Rawley Johnson suggested that the Advisory Group identify those fields that should be considered mandatory and the rest be considered optional. As a result, in TDI the fields Title, Source, Publisher, Publication Date, Document Type, Submitter and Author were identified as mandatory. For QA, the fields Record Title, Record Date, Project Number, Retention Period and Author were so identified. For CSP, the Fields Subject, Document Date, Document Type, Author and Addressee were identified as mandatory. In later discussions at the CNWRA it was determined that the Subject Code should also remain mandatory in all three document sets, since the CNWRA

physical files in its library are organized by Subject Code. As the full text system matures, the files will be organized to take advantage of the system.

In addition, Don Chery agreed to supply a list of any additional fields for these and other priority document sets to be included in TDOCS as he is able to obtain them from NUDOCS and other indices used for databases by the DHLWM.

- 3) Discuss the priority of loading projected volumes of header, full text, and image documents for DHLWM via electronic transfers and scanning and identify this in a list (by March 25)

The DHLWM Advisory Group will provide a list of what is in NUDOCS which could be electronically loaded in TDOCS at the earliest possible date. Additional documents to be loaded in TDOCS by the DHLWM and the CNWRA should be compared against this NUDOCS list, since it is thought to be the most comprehensive list of headers with full text related documents. NUDOCS does not contain any images at this time and the image data scanning for routine documents will be negotiated by the DHLWM with the NUDOCS contractor for future loading in TDOCS.

- 4) Discuss the policy, procedures and operations plan for the initial TDOCS system - CNWRA and DHLWM should develop a plan together for review at the next TDOCS Advisory Group meeting in April 1994.

It was decided that the CNWRA would draft an initial plan and the DHLWM would review and comment on it and complete it by August 15, 1994.

- 5) Review and finalize specific hardware and software requirements list using the October, 1993 report on DHLWM computer requirements for FY94 and the TDOCS design plan - the first implementation will include implementing TDOCS on a server at CNWRA with a number of clients (Windows & UNIX) at DHLWM.

Rawley Johnson confirmed that the current plan was to have the initial TDOCS Server located at CNWRA with a number of Windows and UNIX clients at DLHWM. Don Chery said that the preference of the DHLWM was to have a Server at White Flint as soon as possible. The reasons given were based on response time improvements with parallel server dedicated at the DHLWM, and overall control of Server operations by the NRC and potential security issues identified in Meeting No. 2 above.

Don Chery agreed to supply a list of DHLWM personnel and their machine configurations by March 25 to aid in the CNWRA planning for installing the client software by August 15, 1994 at the DHLWM.

6. Discuss the results of testing the 56Kbps line for document and image transfers between CNWRA and DHLWM and the projected need for a T-1 line.

Robert Marshall tested the 56Kbps line for document and image transfers. He informed DHLWM personnel that a T-1 line would be needed to adequately transfer documents and particularly images between DHLWM and CNWRA.



It is understood that the Telecommunications group at the IRM has been to the CNWRA and are planning to install and have a T1 line operational by the end of July 1994.

- 7) Discuss the scanning interface and plan for coordinating the procurement and installation of appropriate equipment and the development of operating instruction policy at both CNWRA and DHLWM.

A demonstration of the scanner at the DHLWM was given for CNWRA staff. The status of the CNWRA's efforts to analyze and recommend the purchase of an adequate scanner for TDOCS on-demand input at both the CNWRA and the DHLWM is incomplete at this time. Additional review and selection of appropriate scanners will occur by the end of June 1994.

- 8) Update on NUDOC replacement and plans for TDOCS interface.

The current status for the NUDOC replacement and TDOCS interfaces were not addressed at this meeting since this work is planned in FY95.

#### PENDING ACTIONS:

Meeting with IRM on Internet Access for TDAS and NFS Access for DHLWM Windows and UNIX Client Installations for TDOCS.

1. IRM plans to write up a meeting report on this aspect of the TDOCS design and implementation and include necessary direction to the CNWRA to assure that NRC security objectives are met for TDOCS implementation. The CNWRA will need to discuss any redirection on this issue with the NRC IRM after they receive and review the IRM meeting report.

Obtain feedback from the NRC reviewers about the TDOCS design plan and resolve of comments and questions concerning the plan.

2. The DHLWM acceptance letter for the TDOCS Design Plan will provide specific comments and questions for a CNWRA response.
3. The DHLWM will also request a more comprehensive system design for TDOCS that includes a Server at White Flint. The enhanced design report should include additional detailed descriptions on the TDOCS hardware and software and LAN environment at both the CNWRA and the DHLWM.
4. Don Chery pointed out a number of fields in TDI, QA, and CSP, as identified in this report that he considered unnecessary and suggested that they be removed by the CNWRA when loading them in TDOCS.
5. Rawley Johnson suggested that the Advisory Group identify fields that should be considered mandatory and the rest be considered optional when the CNWRA is preparing and loading the headers in TDOCS.

6. Don Chery will supply a list of any additional fields for these and other priority document sets to be included in TDOCS as he is able to obtain them from NUDOCS and other indices used for databases by the DHLWM on August 15, 1994.
7. The DHLWM Advisory Group will provide a list of what is in NUDOCS which could be electronically loaded in TDOCS at the earliest possible date.
8. It was decided that the CNWRA would draft an initial plan for TDOCS operation and the DHLWM would review and comment on it and complete it by August 15, 1994.
9. Don Chery said that the preference of the DHLWM was to have a Server at White Flint as soon as possible.
10. Don Chery agreed to supply a list of DHLWM personnel and their machine configurations by March 25 to aid in the CNWRA planning for installing the client software by August 15, 1994 at the DHLWM.
11. It is understood that the Telecommunications group at the IRM has been to the CNWRA and are planning to install and have a T1 line operational by the end of July 1994.
12. Additional review and selection of appropriate scanners is planned by the CNWRA on April 15, 1994.

**SIGNATURES:**

Rawley P. Johnson  
Rawley Johnson  
IMS Director

3/25/94  
DATE

David I. Lincoln  
David Lincoln  
Research Analyst

3/25/94  
DATE

**CONCURRENCE SIGNATURES AND DATE:**

R. G. Sagar for H. Garza  
ELEMENT MANAGERS SIGNATURE  
TITLE

3/25/94  
DATE

Budhi Sagar  
Budhi Sagar  
Technical Director

3/25/94  
DATE