



## eRA Project Team Meeting Minutes

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**Date:** Tuesday, April 8, 2003  
**Time:** 9:00–11:00 a.m.  
**Location:** 10401 Fernwood, Room 2C13  
**Chair:** John McGowan

**Next Meeting:** Tuesday, April 22, 9:00 a.m., Rock II 9100/9104

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### Action Items

1. (Project Team) Review the possible scenarios for the introduction of load balancing and implications for the summer deployment so that if any problems arise and a schedule slip is necessary, the team would be in a position to decide how to proceed.
2. (Steve Hughes) Provide update on progress made in load balancing for external users at Project Team meeting on May 13.
3. (Donna Frahm) Distribute detailed recommendation for Summer release scope to the Project Team.

### Attachments

- ❑ CY 2003 Architectural Enhancements: Ramifications for Summer deployment (Steve Hughes): [http://era.nih.gov/Docs/cy2003\\_architectural\\_enhancements.pdf](http://era.nih.gov/Docs/cy2003_architectural_enhancements.pdf)
- ❑ ERA Project Update from the Program Office (Donna Frahm): [http://era.nih.gov/Docs/eRA\\_Status-July\\_Release\\_04-03.pdf](http://era.nih.gov/Docs/eRA_Status-July_Release_04-03.pdf)
- ❑ ERA Project Update from the IV&V Team (Joe Pasquina): [http://era.nih.gov/Docs/IVandV\\_Steering.pdf](http://era.nih.gov/Docs/IVandV_Steering.pdf)

### Opening Remarks

*John (JJ) McGowan*

JJ will be meeting with the Steering Committee next week. A Project Update from the Internal Validation & Verification (IV & V) Team and a presentation on proposed Architectural changes will be made.

### CY 2003 Architectural Enhancements: Ramifications for Summer Deployment

*Steve Hughes*

It is the goal of the eRA Architecture team to scale the hardware configuration to meet increasing user demand and provide consistent availability to eRA systems. Steve explained that load balancing and transparent failover technology will help the team achieve these goals. Load balancing provides configuration scalability by allowing load to be distributed between multiple devices. As load increases, additional devices can be introduced into the load-balancing cluster. Transparent failover allows sessions to continue despite certain hardware failures. If one device

fails, the session is rerouted through a different device without disruption of service or loss of data. These technologies are commonly used in support of industry applications similar in size and scope to the eRA systems.

The technology will be phased into the eRA systems with the following priority:

1. Load Balancing for External users

The Project Team agreed that NIH eRA Commons users should be given the highest priority. Although it is difficult to pinpoint the exact breaking point, the Architecture team is certain that the current configuration cannot handle the number of concurrent sessions that are anticipated once opened to all potential users. Load balancing is critical to providing system availability to this highly visible community.

2. Load Balancing for All users

Internal usage on the system is also ramping. Load balancing for internal users will become especially critical as additional Operating Divisions come onboard.

3. Transparent Failover for External users

4. Transparent Failover for All users

Some progress has already been made toward implementing load balancing for eRA. The external applications are packaged to take advantage of load balancing. CIT has tested the hardware and CIT and OER are now working closely together define, implement, and tune the configuration.

The team is working under the following timetable:

05/05/03 Test configuration turned over to Development team for general testing

05/12/03 Test configuration turned over to Testers to run through full test plan

05/31/03 Upgrade production

06/01-06/07 Deploy first Summer iteration to test

Note: Application testing for Summer release must be done under load balancing configuration. Therefore, the Summer deployment delivery date is tied to the start of this test cycle.

06/07/03 Testers begin testing Summer application code

Of course, the schedule may change depending on what is found during the test cycles. Steve described four scenarios and their ramifications.

**Regression Testing Results**

**Ramifications**

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|---|---|
| 1. Existing applications work Load balancing introduced for external users as planned.                | Summer application release can continue on schedule for July 25 release date.       |
| 2. Minor configuration changes (less than 3–4 weeks total delay) in existing applications are needed. | We deploy new application configuration. Summer deployment may have to be adjusted. |

### Regression Testing Results

### Ramifications

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|---|---|
| 3. Significant amount of configuration/modification (>4 weeks total delay) must be done to existing applications. | We keep Production as is, reset the test environment and then proceed with Summer deployment. Probably a slight delay in Summer deployment.                                 |
|   | <b>Note:</b> The Project Team rejected this scenario as a possibility. The risk of not being able to meet load requirements is too large to proceed without load balancing. |
| 4. Significant amount of configuration/modification (>4 weeks total delay) must be done to existing applications. | Implement load balancing prior to next application release. Hold off on any deployment until October.   |

Steve will keep the team apprised of progress and any schedule slips. The Project Team was asked to review the possible scenarios so that if any problems arise and a schedule slip is necessary, the team would be in a position to decide how to proceed.

## eRA Project Update

*Donna Frahm, Project Management Office*

Donna provided some general statistics on the eRA project. The total FY03 funding for the project is \$40.96 million (\$34.4 million base plus \$6.56 million in contingency funds). There are 297 people working on the project including 58 federal employees and 239 contractors. The planning budget includes \$19,277,363 allocated to Application Design, Estimation, Maintenance and Development (Box 9). Development work against the 2003 budget began on February 1, 2003.

Donna described several key process changes that are underway including the introduction of a new development methodology, Rational Unified Process (RUP). RUP is an iterative development approach. eRA will implement a two-iteration cycle. The first iteration will take the most complex and highest risk elements of a release and put them through a full design, code, and test cycle. The second iteration follows with the remaining, less complex, elements.

Other key process initiatives focus on Project Management and include:

❑ **PlanView**

The rollout of the PlanView tool will allow the Program Office to look at the project collectively instead of spread out across multiple tools (Access DB, SBS, Excel, SBS). It will also introduce some new features, such as allowing requests from Advocates for new functionality to be entered directly into PlanView to immediately start the tracking process for the request.

❑ **Annual Planning**

New project management and modeling tools will provide more thorough Annual Planning. Annual planning is especially critical this year with the re-compete coming later in the year.

❑ **Architectural Review**

The Architecture team will review each request to determine if the proposed change has any architectural impact. This determination will be used to help bundle changes into specific releases.

Donna described the general process used to bundle a release and how the Summer release is moving through that process.

Review Process	Summer Release
Establish “Wish List”	Sherry Zucker reviewed the “Wish List” at the March 11 Project Team meeting.
Architecture Review	Completed. Three projects have been identified as good pilot projects for the RUP process and architecture resources have been committed to them. Other projects that require significant architecture resources will be deferred.
Project Management Review	High-level proposal complete. Additional detail pending.
Proposed Recommendations	<p>High-level recommendation complete.</p> <ul style="list-style-type: none"> <li>❑ GM—Integrate J2EE Customized Checklist</li> <li>❑ CGAP—Standards, pilot targeted for October</li> <li>❑ X-Train—Migrate off NIH eRA Commons Version 1</li> <li>❑ CM Web—J2EE Phase 2</li> <li>❑ WebQT—Common query/hitlist Note: the screen will be universal architecture for other applications (ex. Program Module)</li> <li>❑ eSNAP—Population Tracking</li> <li>❑ FSR</li> <li>❑ Program</li> <li>❑ iEdison</li> <li>❑ Person Module</li> <li>❑ LRPs</li> <li>❑ General maintenance activities</li> </ul>
Project Team Approval	Pending additional detail which Donna will supply this week.

Donna mentioned that, due to the pending re-compete, the scope for the Fall release will be limited to reduce risk. Currently, only CGAP (Receipt & Referral Changes in support), IM, and minor module maintenance are targeted.

## **eRA Project Update (IV & V)**

*Joe Pasquina*

Joe Pasquina, a member of the Internal Validation & Verification (IV&V) Team, previewed the *eRA Project Update* presentation he will be giving to the Steering Committee. His presentation outlined initial findings, 2002 initiatives, progress, analysis of March 2003 release, future releases, obstacles, and current initiatives.

The IV&V team estimates a 1.5 (50%) Return on Investment for FY 2002-FY 2008. Much of the return is linked to the J2EE migration from Oracle forms, which have a large amount of maintenance overhead.

About a year and a half ago, the IV&V team conducted an initial assessment of the eRA project and presented to the Steering Committee a list of findings centered around the challenges of keeping up with the rapid growth, complexity, and span of the eRA project. Items such as availability of project, cost, and resource information, uniform project management structure, and the formalization of roles and procedures were identified as areas needing improvement.

The following initiatives were put in place to establish a workable infrastructure that would enable the project team to better manage and control the project:

- ❑ Define roles and responsibilities across the project
  - Documentation of the Project Management Plan (PMP) due out May 1
  - Transform project from “person” to title based responsibilities
- ❑ Refine business planning processes
  - Establish requirements management, configuration management, and change management structures (Blueprint Technologies)
  - Rational Unified Process (RUP)
  - Change from waterfall to iterative lifecycle—Release Management
  - Weekly Configuration Control Board (CCB) meetings
    - Chaired by eRA Operations Manager and includes members of Architecture, Development, Operations, Quality Assurance, Deployment and relevant other parties (ex. Analysts)
    - Good negotiations of tradeoffs between approving change requests and balancing resource requirements
- ❑ Institute a centralized project tracking system
  - Standardize work breakdown structure, project phases, milestones, deliverables, etc.

- MS Project Management Central implemented; Migrating to PlanView to expand functionality and grow with the project
- Improve cost estimation capabilities
  - Baseline requirements
    - Estimate based on historical cost & current requirements
  - Function Point Counting Requirements
    - Internationally recognized methodology for measuring software project “size”
    - Cost Xpert – Industry accepted modeling tool
- Track granular level project reporting data
  - Implemented Oracle Small Business Suite (SBS) – online time tracking system
  - Data collected weekly and fed into MS Access database

Joe reported that significant progress has been made on many of the initiatives.

Joe went on to describe how the SBS Database, Baseline, Function Point Count and Actual Invoice data have all been used to analyze the March 2003 release. The calculated baseline of ~\$1.8M was remarkably close to the SBS data which showed ~\$1.9M. Joe explained that Invoice data for the March release is currently incomplete due to a 2-month lag, so comparisons to that data currently appear skewed. A comparison between SBS and Invoice data through December showed a strong correlation (97%) between the modules. By gathering the different data points, understanding the correlations between them and tuning the modeling tools based on those findings, the eRA team will be able to provide more accurate cost analysis going forward.

Joe mentioned future activities being looked at which included:

- April 2003—CGAP & XML, I-Edison Redesign
- July 2003—J2EE Customizable Checklist & Query Tool, Person Module Redesign
- Additional July 2003 Requirements under review

CY 2003 Initiatives identified include:

- Calibrate baselines across all modules
- Finalize Project Management Plan
- Migrate Oracle SBS & eRA Cost Tracking Databases to PlanView
- Refine cost estimating models
- Independent cost & schedule estimates across all models
- Further expand SEI/CMM Level II capabilities
- Emphasize cost control and contractor invoicing

The Project Team pointed out to Joe that none of the tools capture the “volunteer” time put into the eRA project by Advocates, Analysts, and others is not captured in any of the data and should be noted when presenting to the Steering Committee.

The Project Team suggested that some of the terminology (ex. Function Point Analysis) should be explained more clearly.

## **Attendees**

Austin, Patricia (OER/COB)	Hausman, Steve (NIAMS)	Silverman, Jay (NGIT)
Bradley, Eileen (CSR)	Hughes, Stephen (OD)	Sinnett, Everett (CSR/OD)
Caban, Carlos (OER)	Liberman, Ellen (NEI)	Snouffer, Anna (OD/OFACP)
Cain, Jim (OER)	Markovitz, Paul (OER)	Soto, Tracy (DEIS)
Copeland Sewell, Zoe-Ann (OD/OER)	Martin, Carol (NHGRI)	Stone, George (OER/OPERA)
Cox, Michael (OER)	McGowan, JJ (NIAID)	Tucker, Jim (OER)
Cummins, Sheri (LTS/COB)	Morton, Larry (OER)	Twomey, Tim (OD)
Erickson, Bud (NCI)	Morton, Pete (CIT)	Walker, Catherine (OER)
Flora, Carla (OER)	Moyer, Skip (AHRQ)	Williamson, Mary Ann (NIDCR)
Frahm, Donna (OER)	Pasquina, Joe (SOZA)	Wilson, Mike (NGIT)
Ghassemzadeh, Ali (OER)	Patel, Kalpesh (Ekagra)	Wright, David (OPERA)
Gibb, Scarlett (OER/COB)	Ratnanather, Chanath (Ekagra)	Zucker, Sherry (DEIS)
Goodman, Mike (OD/OER)	Sachar, Brad (Oracle)	
Hahn, Marcia (OER/OPERA)	Seppala, Sandy (LTS/COB)	
	Silver, Sara (Z-Tech)	