

National Archives & Records Administration (NARA) Electronic Records Archives (ERA) Increment 1 Delta System Requirements Review (SRR)

**Document No. NARA-2005-0202
Lockheed Martin Transportation & Security Solutions
7601 Ora Glen Drive, Greenbelt, MD 20770
November 9-10, 2005**

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WELCOME

Electronic Records Archives (ERA) Increment 1 Delta System Requirements Review (SRR)

Lockheed Martin Team
November 9-10, 2005

Introduction/Engineering Process ERA Increment 1 Delta SRR

**Steve Hansen
November 9, 2005**

SRR Introduction Topics

Administration

Scope and Objectives

Entry Criteria & Exit Criteria

SRR Meeting Roles & Responsibilities

Presenters

Daily Agendas

Ground Rules

Administration

Location

LM Greenbelt Facility

Message Delivery

Secretary: Lac Nguyen

Phone No (301) 623-3438

Safety/Emergency Evacuation

Follow Signs to nearest EXIT

Lunch

Available at a variety of local establishments – maps available in back

Restrooms

Out and to the right of the presentation room

Attendance Sheet

Pre-populated for most attendees, with "check block" for days attended.

Comments Form

See FOIA (b) 6 for forms or to hand in new Review Item Discrepancies (RIDs)

Lunch Opportunities

Chanan Buffet

Jasper's

Silver Moon

Willy K's

Denny's

TGI Fridays

Royal Jade

Chevy's

Bennigan's

Chipotle

Atlanta Bread

Wendy's

Subway

Safeway

**Maps For Local Establishments Are Located
In the Back**

Delta SRR

Conducted SRR during Analysis and Design Phase

- Agreed on set of requirements for Full Operational Capability
- Developed initial allocation of requirements to Increments consistent with the Target Release Paper

Increment 1 option awarded

- Adjusted requirement allocations and facility deployment plans to match projected funding profile
- Ensured RD and IRD requirements are reflected in SyRS and IRS unchanged
- Reduced number of subsumed legacy systems, external system interfaces, and restricting the user community to a limited number of agencies and NARA
- Adjusted operations, support, and training accordingly

Delta SRR Scope and Objectives

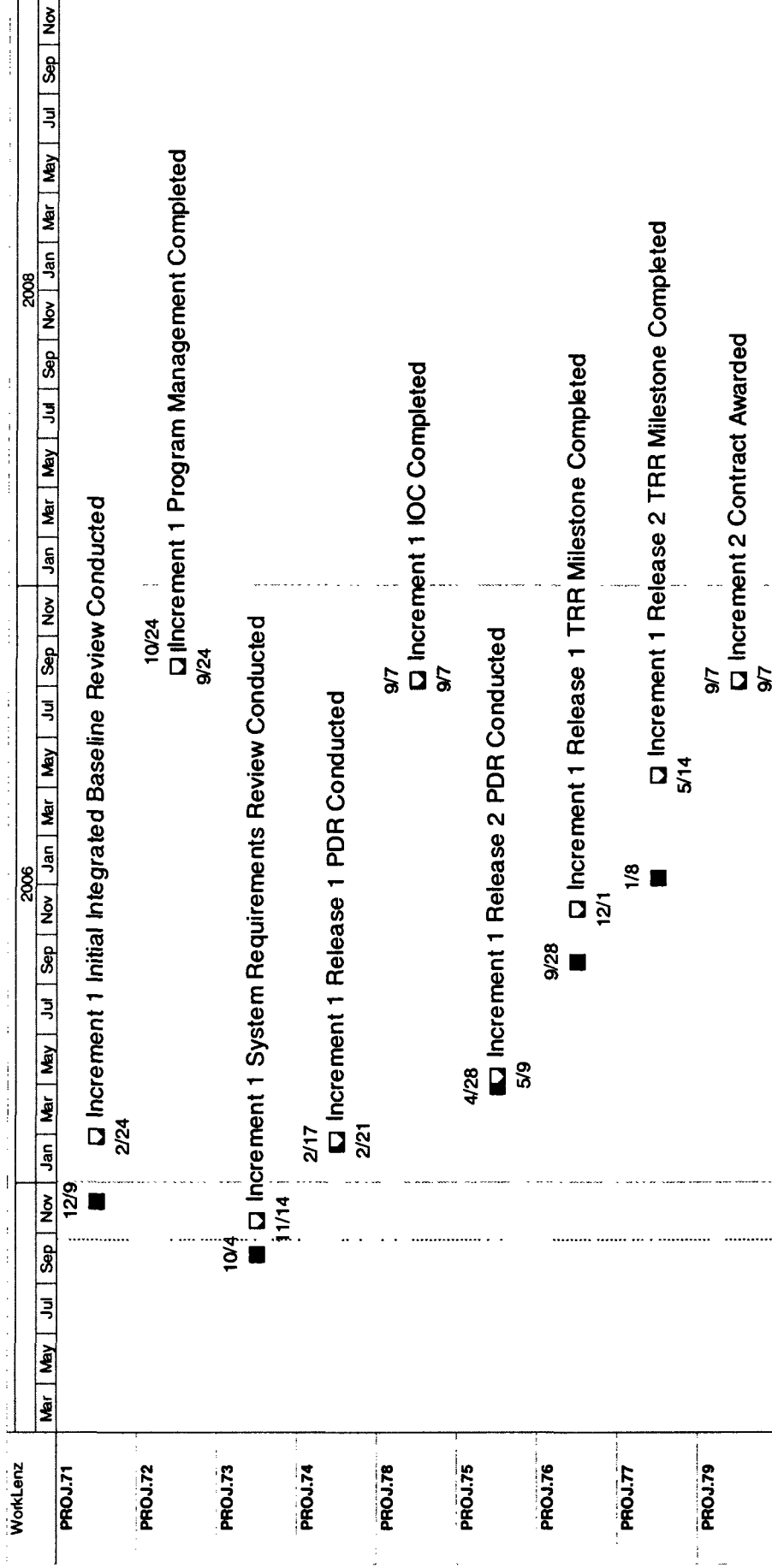
Establish the baseline for Increment 1 consistent with available funding

- **Agree on the allocation of requirements to Increment 1**
- **Agree on the legacy systems whose functionality will be fully provided in Increment 1**
- **Agree on facilities for Increment 1 deployment**

Review baseline

- **System Requirements Specification (CDRL 1)**
 - **Contains ERA Change Control Board approved Requirement Documents shalls and LM derivations**
- **Interface Requirements Document (CDRL L51)**
 - **Contains ERA CCB approved Interface Requirements Document shalls and LM derivations**

Level 1 Schedule



Legend

Baseline Finish Date

Current Finish

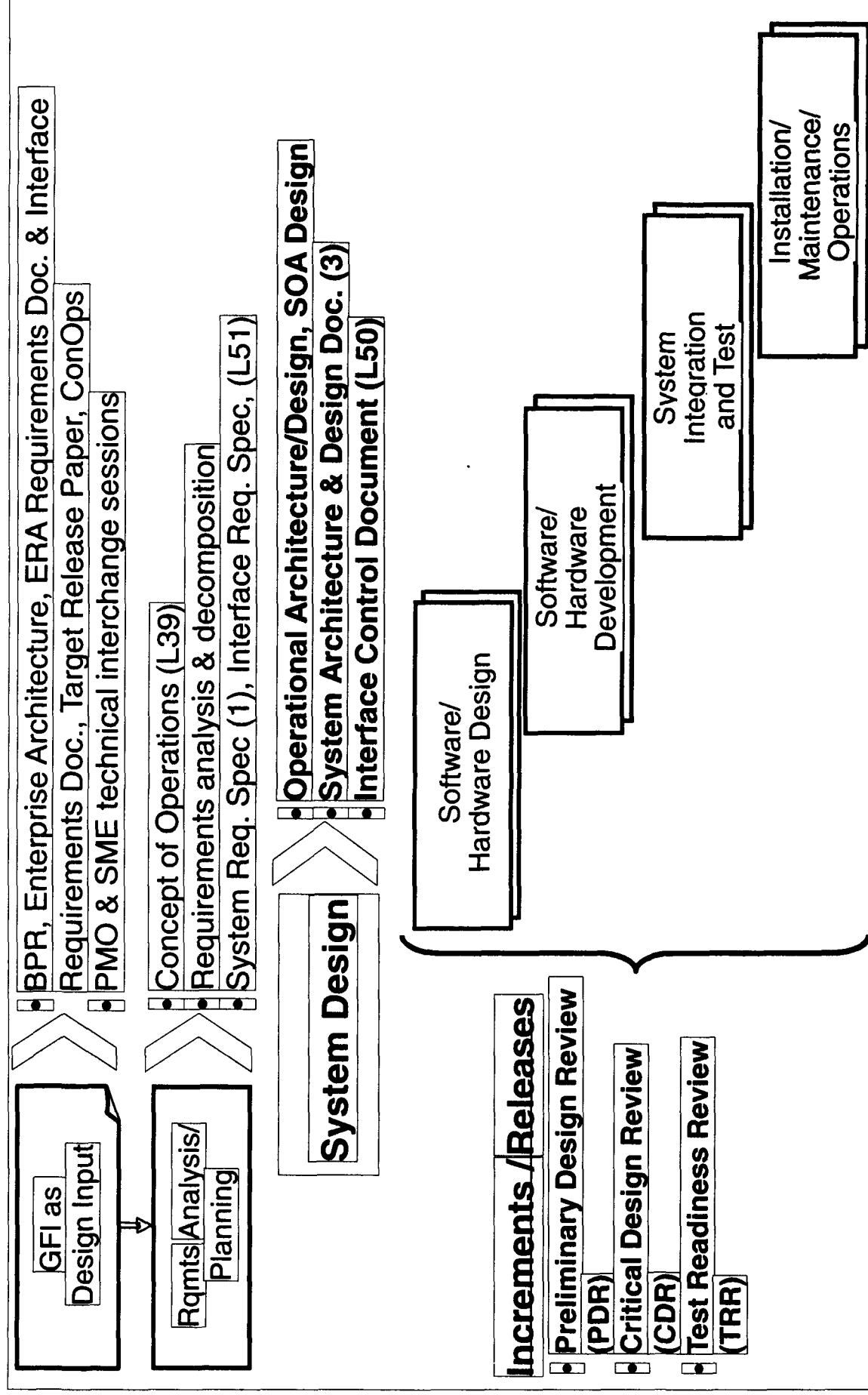
Current Finish Date

Completed

Current Finish Date

Baseline Finish

System A&D Methodology: Engineering Overview



SRR Entry Criteria

**Agreement on disposition forms to be used for SRR comments
between the ERA PMO and Lockheed Martin**

Baselines in place

- CCB approval of SyRS and IRS**

**Informal review of SyRS, IRS and operational threads (list and
content) conducted with ERA PMO**

**Informal review and agreement on updated Target Release Paper
(TAR)**

SRR Exit Criteria

Completion of all planned presentations

- Architecture Summary (no substantive change from SDR)
- Increment 1 Functional Allocation
 - Target Release Paper
 - Operational threads
 - Requirement allocation
 - Subsumed systems
 - External interface plans
- Performance and Availability Requirements
 - “Design to” versus “deploy to”
- Operations and Facilities Plan
 - Identification of facilities
 - Agreement on scope (NARA vs. LM)
 - Includes training strategy
- Technical Risk

Disposition of all SyRS, IRS RIDs

- Draft
- Accepted
- Deferred
- Closed
- Withdrawn

Minutes published

- Includes recording of comments from presentations and all RID dispositions
- Includes risk assessment of review activities

Delta SRR Approach

NARA provided constraints and input for Increment 1 definition

- Provided target funding constraints
- Provided prioritized target release paper functionality

LM generated pre-briefing review package

- Increment 1 requirement allocation

Provided supporting material to support requirements review

- Target release paper mapped to requirements
- Operational Concept level scenarios mapping to requirements

ERA PMO generated Review Item Discrepancies (RIDs)

- LM prepared responses
- Team disposition of changes consistent with funding constraints

Briefings composed primarily of RID disposition

- Requirement briefings will identify functionality that is in Increment 1 and that which has been deferred

Delta SRR Meeting Roles & Responsibilities

Role	Responsibility	Assignee(s)
Meeting Moderator	•Introduce the meeting and participants •Provide daily direction for meeting participants •Maintain control of meeting •Determine point of escalation, as required	Steve Hartman (LM)
Chairperson (Chief Engineer)	•Provide Direction on comment disposition •Authorize final comment disposition	Dyung Le Steve Hansen (LM)
Presenter	•Present material in support of SRR objectives •Present comments to SyRS and IRS •Work on actions as required to obtain agreement on comment disposition	See Agenda
SRR Coordinator	•Control walk-on comments and provide copies •Track final disposition of comments •Maintain original records of comments	FOIA (b) 6
Recorder	•Track the disposition of all comments •Document meeting minutes, including comment disposition and discussions	FOIA (b) 6 Bob Nagle
SRR Board	•Makes final decisions on disposition of RIDs	Ken Thibodeau Dyung Le Haseen Uddin Tom McAndrew Mary Winstead Quyen Nguyen David Lake

Agenda – Day 1

9:00	Introduction/Engineering Process	Steve Hansen
9:30	Increment 1 Target Release Paper	Bill Harris
10:15	Break	
10:30	Subsumed Systems and External Interfaces	Rick Rogers
11:30	Increment 1 Operational Scenarios	Rick Rogers
12:00	Lunch	
1:00	Records Management Req. Alloc. (ERA1 – ERA6)	Fred Robinson
2:00	Preservation Req. Alloc.(ERA7 – ERA 9)	Rodney Ripley
2:30	Break	
2:45	Ingest Req. Alloc. (ERA15 – ERA16)	Rodney Ripley
3:45	Access Req. Alloc. (ERA17 – ERA20)	Rodney Ripley
5:00	Wrap-up	Steve Hansen

Agenda – Day 2

9:00	Archival Storage Req. Alloc. (ERA10 – ERA12)	Betty Sorber
9:30	Security Req. Alloc. (ERA13 – ERA14)	FOIA (b) 6
10:30	Break	
10:45	User Interface/Admin Req. Alloc. (ERA21 – ERA30)	FOIA (b) 6
12:00	Lunch	
1:00	System Characteristics Req. Alloc.(ERA31 – ERA33)	Bill Harris
2:15	Interface Allocations (IR1 – IR4)	Rick Rogers
2:45	Break	
3:00	Facilities and Training Plans	FOIA (b) 6
3:30	Technical Risk/PDR Expectations	Bill Harris
4:00	Wrap-up	Bill Harris

Ground Rules

RID Forms will be used to facilitate discussions, approvals, baseline change, and audit trail for the SRR meeting

Meeting co-Chairs and Moderator will assure compliance to the presentation schedule

- Items may be placed in the "Parking Lot" to facilitate meeting progress

Discuss Comments one at a time, section by section, in the SyRS / IRS

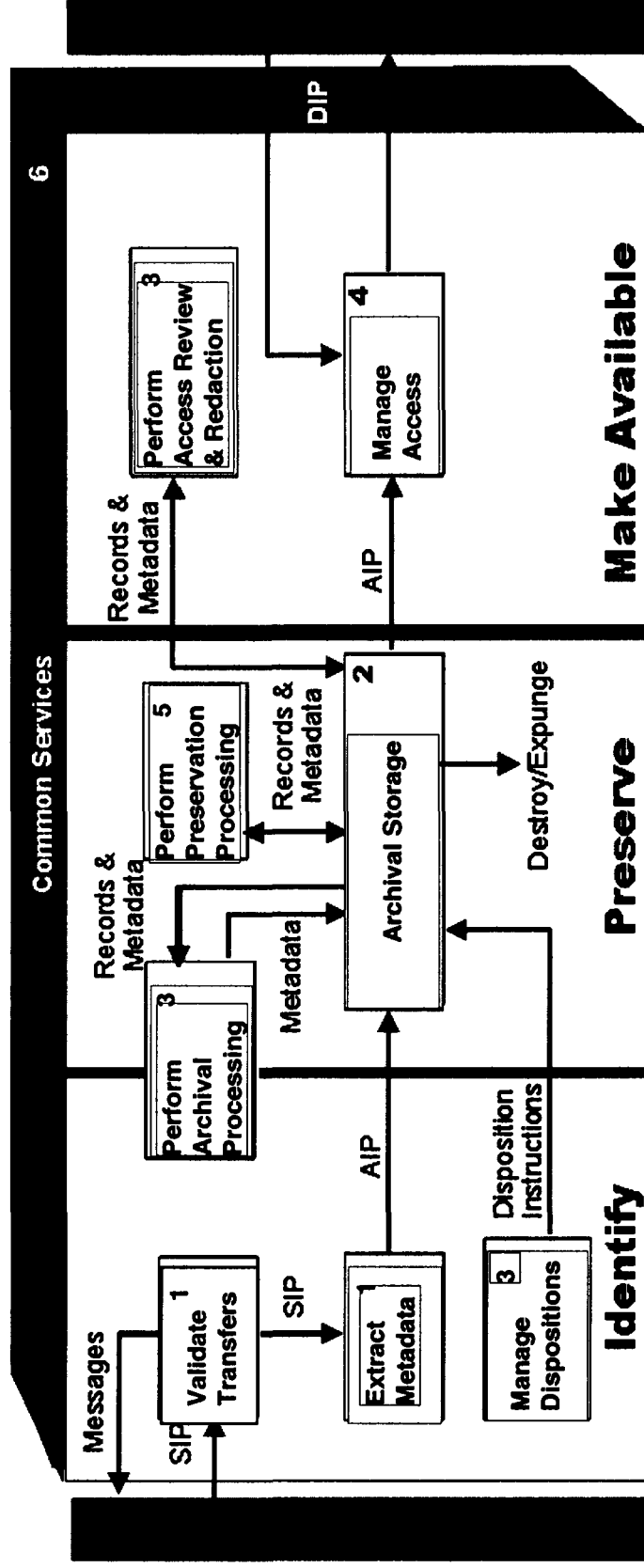
- All comments prepared using agreed-to RID forms
 - Updated RID captures agreements
 - Recorder holds master copy to be initialed by Chairperson(s) as they are approved for each section
 - Provides audit trail of SRR agreements; becomes the minutes of the SRR as well as the basis for changing the SyRS / IRS baselines

Target Release Paper Requirement Mapping ERA Increment 1 Delta SRR

Bill Harris

November 9, 2005

Business View



Legend:		OAIS Functions	ERA System-Level Packages	Service Oriented Architecture
	1- Ingest	Ingest	Archival Storage	Business Application Services
	2- Archival Storage	Archival Storage	Records Management	Common Infrastructure Services
	3- Data Management	Records Management	Dissemination	
	4- Access	Dissemination	Preservation	
	5- Preservation	Preservation	Local Services & Control ERA Management	
	6- Common Services	Local Services & Control ERA Management		

TAR Functionality

Functions	Increment 1	Increments 1 ERA Level 2 Requirement
Lifecycle Data Repository	Core Records Lifecycle (RLC) data model implemented	ERA8.4.1, ERA5.1.1, ERA5.2.1,
	Automated RLC data extraction only from RLC management transactions using Standard Forms in Template Repository	ERA1.1.15, ERA5.5.1, ERA5.7.1,
Generate Archival Descriptions		Creation of descriptions is Deferred
Appraisal	Support versioning	ERA1.1.5
Arrangements		Deferred
		Deferred
Templates	Establish Template Registry/Repository	ERA7.2.x, ERA7.4.x, ERA7.6.x, ERA7.7.x, ERA7.8.x, ERA7.9.x
	Preliminary NARA record hierarchy/template scheme defined	ERA7.10
	Register NARA Templates for key Disposition Transactions (e.g. SF 115)	ERA1.1.1, ERA1.1.2, ERA7.4.2, ERA8.2
	Test registration of producer templates and their conformance with NARA standard	Deferred
	Register increment's Data Types	ERA8.3.2, ERA8.10.1, ERA8.10.2, ERA8.10.3, ERA8.10.4, ERA8.10.5, ERA8.10.6
	Templates generated for Increment's Record Types (RTs). Post some 'best practices' examples	ERA7.2.x, ERA7.4.x, ERA7.6.x, ERA7.7.x, ERA7.8.x, ERA7.9.x

TAR Functionality (continued)

Functions	Increment 1	Increments 1 ERA Level 2 Requirement
Disposition Agreement Support	Post some 'best practice' examples	ERA1.1.1.1, ERA1.1.1.2, ERA7.4.2, ERA23.7.1, ERA23.1.2
	Allow for electronic submission of Agency's agreements (free form, not fully template based)	ERA1.1.2, ERA1.1.3, ERA1.1.4, ERA1.1.4, ERA1.1.6, ERA1.1.7, ERA1.1.8, ERA1.1.9, ERA1.1.10, ERA1.1.11, ERA1.1.12, ERA1.1.13, ERA1.1.14, ERA1.1.16, ERA1.1.17, ERA1.1.18, ERA1.1.19, ERA1.1.20, ERA1.1.21, ERA1.1.22, ERA1.1.23, ERA1.1.24, ERA1.1.25, ERA1.1.26, ERA1.1.27, ERA1.7.1
	Production version of tools piloted in RMI & BPR projects	ERA1.8.1
	Disposition Instructions	ERA1.6.6, ERA1.6.7
	Approved NARA media. NWME – DLT, CD-ROM, DVD (U/SBU Only)	ERA15.1.1, ERA15.1.2, ERA16.1.3, ERA6.1.1, ERA1.10.1, ERA1.10.2, ERA16.1.1, ERA16.1.3, ERA16.1.7
Transfer of Records Sets	Verify number of files, file labels, and amount of data received are as expected	ERA1.10.1, ERA1.2.1, ERA1.2.10, ERA1.2.2, ERA1.2.3, ERA1.2.4, ERA1.2.5, ERA1.2.6, ERA1.2.8, ERA1.2.9, ERA1.8.1, ERA16.2.2, ERA16.2.3, ERA16.2.4, ERA1.3.1, ERA1.3.2
Support for transferred records	Verify Data Types are what was expected	ERA15.2.1, ERA15.4.1, ERA16.3.x, ERA16.4.x
Check Representation Information of Records	Identify & verify data type of digital components for Increment's record types	ERA16.6.1, ERA16.6.3
	External wrapping of bit files	ERA8.2.1

TAR Functionality (continued)

Functions	Increment 1	Increments 1 ERA Level 2 Requirement
Preservation of Electronic Records	Aggregation of small bit files in physical containers	Deferred
	Establish archive (name space and conventions, insertion and access methods)	ERA11.1.2, ERA14.9.x, ERA14.15.x, ERA10.1.3, ERA10.1.4, ERA10.2.2, ERA10.2.3, ERA10.2.4, ERA10.2.5, ERA10.2.6, ERA10.2.7, ERA11.1.1, ERA12.2.1, ERA12.4.1, ERA12.4.2, ERA12.9.1, ERA12.9.2, ERA12.10.x
	Institute security controls (access and integrity)	ERA13.1.1, ERA13.1.2, ERA13.1.3, ERA13.13.1, ERA14.10, ERA14.11, ERA14.12, ERA14.13, ERA14.14
	Minimal archival wrapping (establish equivalent of an OAS AIP)	ERA8.2.1
	Classified records	Deferred
Redaction of Restricted Content	Support the overwriting/blanking of sensitive information (e.g., Social Security Number). Privacy Act Only.	ERA14.7.1
	Basic search capability on RLC data (single and multiple attributes)	ERA19.1.1, ERA19.1.6, ERA19.1.16, ERA19.1.19, ERA19.1.24, ERA19.1.25, ERA19.1.29, ERA19.5.1, ERA19.5.2, ERA19.5.3, ERA19.7.4, ERA19.3.5, ERA19.3.6, ERA8.10.5

TAR Functionality (continued)

Functions	Increment 1	Increments 1 ERA Level 2 Requirement
Searching of Descriptive Information	Limit search execution times	ERA19.9.2
	Standard data base queries for structured and semi-structured data on-line	ERA8.10.5, ERA19.1.1, ERA19.1.5, ERA19.1.6, ERA19.1.25, ERA19.1.29, ERA19.3.6
	All stored files can be retrieved and provided as bit files	ERA8.2.1, ERA20.6, ERA20.7, ERA20.8, ERA20.9
Retrieval of Electronic Records	User specified output parameters equal to APS & AERIC	ERA15.1.1, ERA15.1.2, ERA16.1.3, ERA6.1.1, ERA1.10.1, ERA1.10.2, ERA16.1.1, ERA16.1.3, ERA16.1.7
	Data base instantiation in line with AAD capabilities	Deferred
	Simple viewers used for identified supported data types (so they can be viewed in their native format)	ERA20.1.4, ERA20.1.5, ERA20.10.4, ERA20.11.6, ERA20.11.8
Presentation of Electronic Records	List presentation of structured and semi-structured database	Deferred
	Output to screen, download of files	ERA19.8.1, ERA19.8.4, ERA20.11.7, ERA20.11.9
Output of Electronic Records	Establish security infrastructure to allow for records to be stored and accessed according to sensitivity, classification, and applied access rights	Deferred

TAR Functionality (continued)

Functions	Increment 1	Increments 1 ERA Level 2 Requirement
Access Review	Ability to assign access control and restrictions to records based on classification, sensitivity, and position in the processing lifecycle	Deferred
Records Disposal	Procedures and tools for off line records/media disposal	ERA1.5.1, ERA1.5.2, ERA1.5.3, ERA1.5.4, ERA1.5.5, ERA1.5.6, ERA1.5.7, ERA1.5.8, ERA1.5.9, ERA1.5.11, ERA1.5.12
Interfaces Established	N/A	N/A
- Financial		Deferred
- Location/Life Cycle		Deferred
- Producer	Electronic submission of records supported, support for submission of Disposition Agreements (SF115 based but free form)	ERA53.x
- Consumer	Limited number of static User Interfaces (Workbenches)	ERA21.1.x
Workflow	Ability to represent business rules via a managed set of tasks	ERA2.1.x, ERA2.2.x
	Ability to define and execute a series of queued and managed tasks	ERA2.3.x, ERA2.4.1, ERA2.4.2, ERA2.4.3, ERA2.4.4, ERA2.8.x, ERA2.9.1

TAR Functionality (continued)

Functions	Increment 1	Increments 1 ERA Level 2 Requirement
User Subscriptions		Deferred
User Accounts	NARA accounts, primary producers/consumers,	ERA21.1.x, ERA21.5, ERA21.6.1, ERA21.8.1, ERA22.1.x, ERA22.3.x
Event logs and reports	Select which information to log Expunge event log information	ERA25.1, ERA25.2, ERA25.4.1, ERA25.5.1, ERA25.6.x, ERA25.7.x
	Log all system events Define retention period for logs and types of log entries	Deferred
Reporting	Create routine canned reports	ERA26.1.1, ERA26.1.3, ERA26.1.5, ERA26.1.6, ERA26.4.1, ERA26.4.2
Service Management	Monitoring, queuing, stop-start	ERA30.6.1, ERA30.6.2, ERA30.6.3
Security	Basic security infrastructure in place (authority sources, access control, authentication, non-repudiation)	ERA13.1.x, ERA13.13.x, ERA14.10.1, ERA14.12.x, ERA13.7.x, ERA14.6.x
	Network/edge security in place (denial of service, packet filtering, firewalls)	ERA14.1.x, ERA14.2.x,
User Support	N/A	N/A
- Mediated Searches/Archival Help Desk		Deferred
- Technical Support/Help	On-line Help consistent with supplied system services and record types, limited staff/hours	ERA23.1.x, ERA23.2.x,

TAR Functionality (continued)

Functions	Increment 1	Increments 1 ERA Level 2 Requirement
Training	For NARA staff on deployed functions	Deferred
Logistics Management	Support operational CM on system components	ERA28.1.3, ERA28.1.4, ERA28.1.6, ERA28.2.x
Forms Processing	Initial support and processing of forms	ERA2.6.x
Notifications	Initial support of notifications	ERA2.7.x
Infrastructure	Basic infrastructure to support ERA business applications	ERA14.14.x, ERA16.1.x, ERA24.1.1, ERA24.1.2, ERA24.3.1, ERA24.3.2, ERA24.3.3, ERA24.3.4, ERA24.5.x, ERA24.6.x, ERA27.1.x, ERA27.2.1, ERA27.2.3, ERA27.2.4, ERA27.2.5, ERA27.2.6, ERA27.3.1, ERA27.3.2, ERA27.3.3, ERA27.3.4, ERA27.3.5, ERA27.3.6, ERA27.3.7, ERA27.4.1, ERA27.4.2, ERA27.4.3, ERA27.4.4, ERA27.4.5, ERA27.4.6, ERA27.4.7, ERA51.x [except ERA51.37]

Agenda – Day 1

9:00	Introduction/Engineering Process	Steve Hansen
9:30	Increment 1 Target Release Paper	Bill Harris
10:15	Break	
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5:00	Wrap-up	Steve Hansen

Increment 1 Subsumed Systems and External Interfaces

Rick Rogers

November 9, 2005

Subsumed Systems

Increment 1 will provide the functionality required to subsume the following legacy systems:

- **Accessions Management Information System (AMIS)**
- **Archival Preservation System (APS)**
- **Archival Electronic Records Inspection and Control System (AERIC)**

Performed gap analysis to compare Section 4.0 of the Legacy Use Case Migration Document (LUCM) to the Increment 1 requirements

- **Met with legacy system owners to view systems in operation**
- **Limitations for Increment 1 documented**
- **Included analysis of Access To Archival Databases (AAD)**

Gap Analysis – AMIS

- **Accessions Management Information System (AMIS)**
 - ERA10.2 The system shall provide the capability to manage assets
 - Limited to one instance
 - ERA19.1 The system shall provide the capability for a user to select the characteristics of a search against the asset it contains
 - Limited to lifecycle data searches
 - ERA26 The system shall provide reporting capability
 - Limited to pre-defined reports

Gap Analysis – APS

- Archival Preservation System (APS)
 - ERA6 The system shall provide capabilities for sample records
 - Defers authenticity verification
 - ERA12 The system shall provide media management
 - Defers media refreshment
 - ERA10.2 The system shall provide the capability to manage assets
 - Limited to one instance
 - ERA16 The system shall provide the capability to transfer records to ERA
 - Defers checking archival properties
 - Defers 5015.2 record profiles
 - Finding: No ERA requirement to perform Web Harvesting, but ERA will accept Web Harvested transferred records

Gap Analysis – APS (continued)

- **Archival Preservation System (APS) - continued**
 - **ERA20 The system shall provide access to the assets it contains**
 - **Limited to providing assets in original format**
 - **ERA25 The system shall maintain an event log**
 - **Defers user-defined log categories**
 - **ERA26 The system shall provide reporting capability**
 - **Limited to pre-defined reports**

Gap Analysis – AERIC

- **Archival Electronic Records Inspection and Control System (AERIC)**
 - ERA7 The system shall provide the capability to manage templates
 - Defers importing/exporting templates from external systems
 - ERA18 The system shall provide the capability for redaction of the assets it contains
 - Defers redaction, will support “blinking” sensitive information such as Social Security Numbers
 - ERA20 The system shall provide access to the assets it contains
 - Limited to providing assets in original format
 - ERA26 The system shall provide reporting capability
 - Limited to pre-defined reports

Gap Analysis – AAD

- **Access To Archival Databases (AAD)**
 - Analyzed requirements and operations of AAD
 - Recommend deferral to later Increment
 - Increment 1 lacks a public user interface
 - Descriptions are deferred
 - Support for reference version development deferred along with preservation functionality

Subsumed Systems RIDs

Review Item Discrepancies

- RID-LMC00167 Blank out fields and produce reference copies in Inc. 1?**

Conclusions & Outlook

- **Verified Increment 1 allocations cover subsumed systems requirements (with documented limitations)**
- **Continuing dialog with legacy system owners to ensure future requirements and design work matches their needs**

Increment 1 Operational Scenarios

Rick Rogers
November 9, 2005

Operational Scenarios

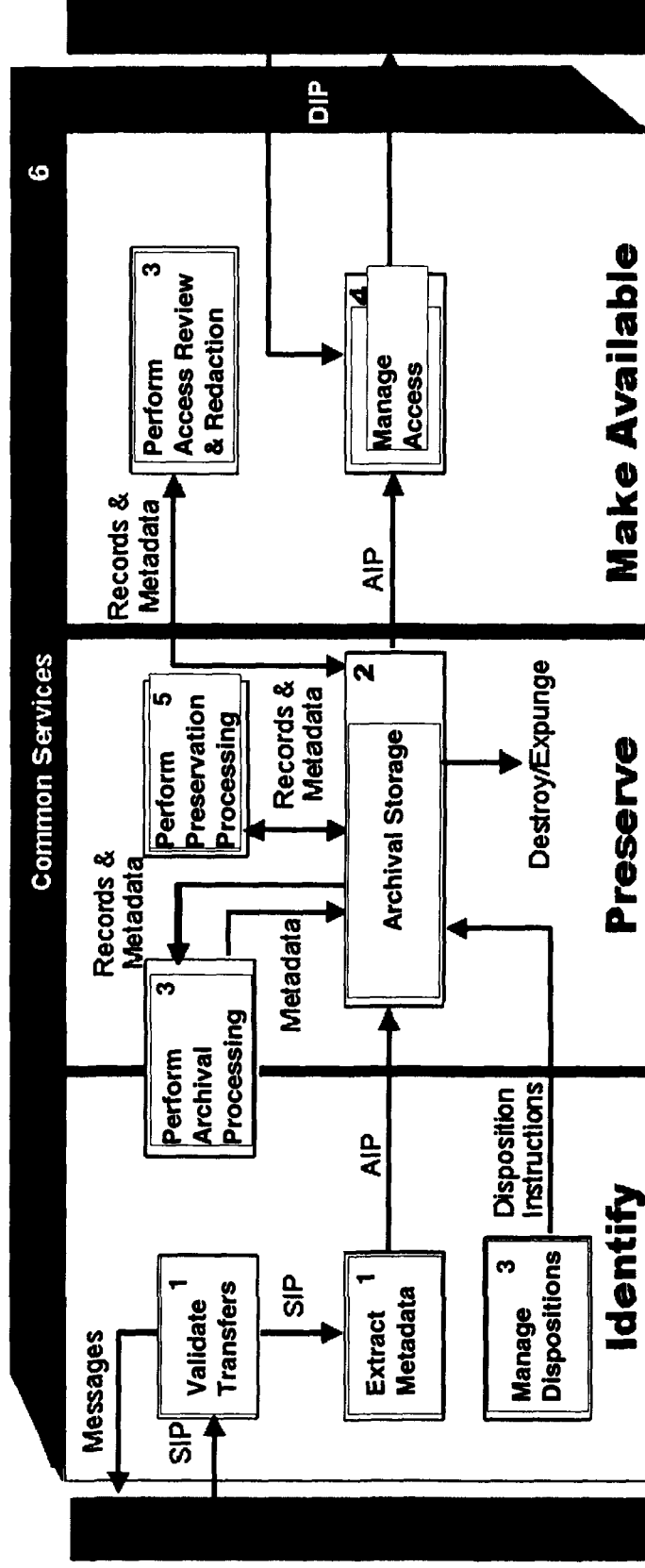
Operational Scenarios provide business context for requirements allocated to Increment 1

- Based on LM Team’s “Concept of Operations” and “System Architecture and Design” documents
- Reference requirements allocated to Increment 1
- Cover “basic” full lifecycle management capability

Continue to use operational scenarios where appropriate to translate requirements into the business context

- Involve NARA offices in detail scenario development
- Close on list of Increment 1 scenarios in support of Preliminary Design Review number 2

Business View



Scenarios Mapped to Function

- **Validate Transfers**
 - **Create Transfer**
 - **Submit Transfer Request**
 - **Receive Physical Transfer**
 - **Receive Electronic Transfer**
 - **Process Transfer**
- **Extract Metadata**
 - **Manage lifecycle data elements**

Scenarios Mapped to Function

- **Manage Dispositions**
 - **Create Disposition Agreement**
 - **Approve Disposition Agreement**
 - **Validate Disposition Agreement**
 - **Update/Edit/Manage Disposition Agreement**
 - **Import Disposition Agreement**
 - **Disposition Of Electronic Records**
 - **Manage Disposition Instructions**
- **Archival Storage**
 - **No user-facing operational scenarios**

Scenarios Mapped to Function

- **Perform Archival Processing**
 - Approve Template
 - Create Draft Template
 - Identify Template
 - Import New Template
 - Manage Template
 - Obtain Template
 - Output/Export Template
 - Search for Template
- **Perform Preservation Processing**
 - Not in Increment 1 scope

Scenarios Mapped to Function

- **Perform Access Review and Redaction**
 - Not in Increment 1 scope
- **Manage Access**
 - Search Assets
 - Enter Search Criteria and Properties
 - Formulate Search Query
 - Browse record catalog
 - Display Search Results
 - Select Record(s)
 - Retrieve Electronic Assets
- **Common Services**
 - Login to System
 - Managing Running Workflows

Conclusions and Outlook

- **Verified Increment 1 requirements cover each major phase of records lifecycle, with two known exceptions:**
 - **Preservation Processing**
 - **Access Review and Redaction**
- **Continue to use operational scenarios where appropriate to translate requirements into the business context**
 - **Involve NARA offices in detail scenario development**
 - **Close on list of Increment 1 scenarios in support of Preliminary Design Review number 2**
- **Address RIDs**

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**Requirements Summary
Records Management (ERA1 – ERA6)
ERA Increment 1 Delta SRR**

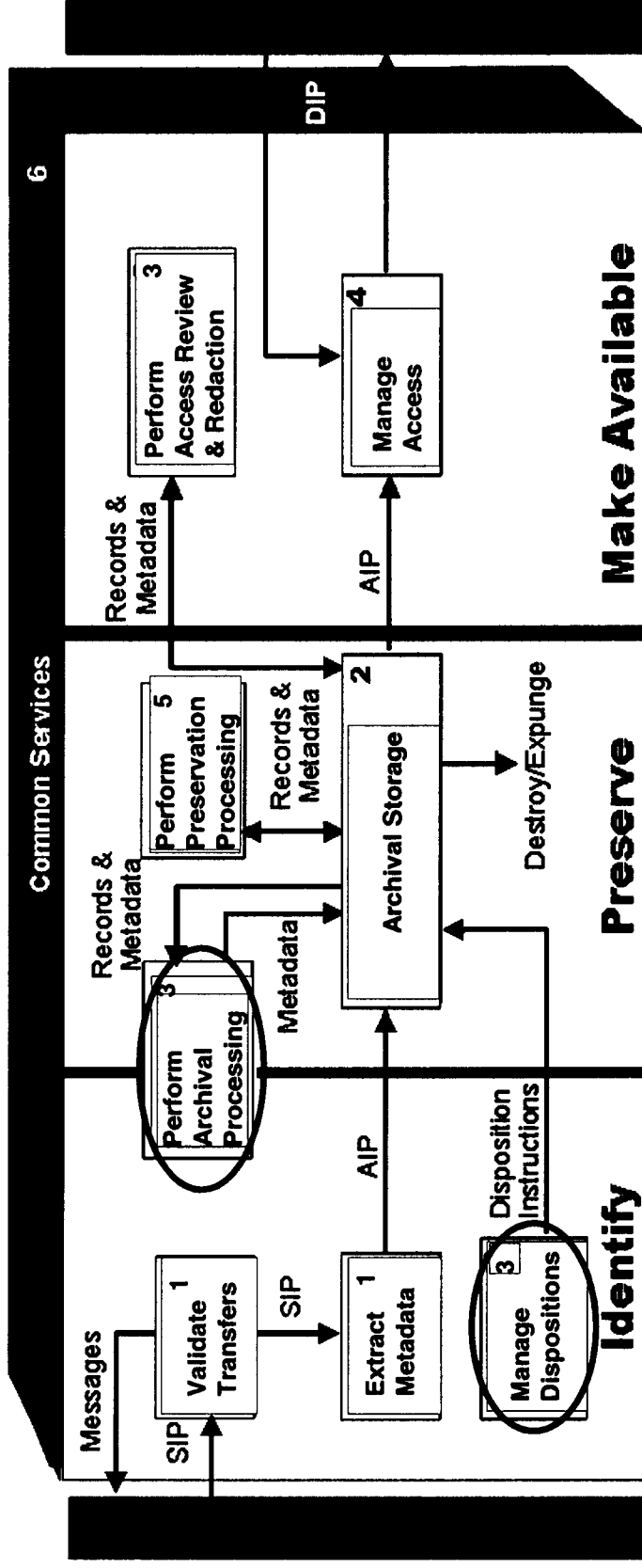
**Fred Robinson
November 9, 2005**

Records Management: Scope

Records Management includes the following ERA System behaviors

- Managing disposition of records (ERA1)**
- Managing workflow (ERA2)**
- Managing descriptions (ERA3)**
- Managing authority sources (ERA4)**
- Managing records lifecycle data (ERA5)**
- Managing sample records (ERA6)**

Business View



Legend:	OALS Functions	ERA System-Level Packages	Service Oriented Architecture
	1- Ingest	Ingest	Business Application Services
	2- Archival Storage	Archival Storage	
	3- Data Management	Records Management	
	4- Access	Dissemination	
	5- Preservation	Preservation	
	6- Common Services	Local Services & Control ERA Management	Common Infrastructure Services

Records Management: Key Concepts

The ERA system will

- Remain policy neutral, and allow flexible definition of workflow, statuses, and rules**
- Provide consistent configuration management facilities to manage versioning of assets**

Requirements Summary Disposition of Records (ERA1) ERA Increment 1 Delta SRR

**Fred Robinson
November 9, 2005**

Records Management: Disposition of Records Scope

Disposition of Records (ERA1) includes the following ERA System behaviors

- **Managing disposition agreements (ERA1.1)**
- **Supporting transfer of records (ERA1.2)**
- **Supporting transfer of legal custody of records (ERA1.3)**
- **Exporting records (ERA1.4)**
- **Destroying records (ERA1.5)**
- **Implementing disposition instructions (ERA1.6)**
- **Projecting scheduled transfers (ERA1.7)**
- **Packaging transfers (ERA1.8)**
- **Providing tools to facilitate transfers (ERA1.9)**
- **Exchanging records with records management applications (ERA1.10)**
- **Supporting appraisal (ERA1.11)**

Records Management: Disposition of Records

Conclusions / Outlook

All Disposition of Records functionality is included in Increment 1 except for the following, which have been deferred

- Supporting collaboration of Disposition Agreements (ERA1.1.18)
- Destroying electronic records based on disposition instructions for a specified date (ERA1.5.1.1)
- Destroying electronic records based on date (ERA1.5.2.1)
- Destroying electronic records according to Transferring Entity standards (ERA1.5.9.1)
- Automating disposition instruction processing (ERA1.6.1-ERA1.6.5)
- Exporting records to records management applications (ERA1.10.2)
- Creating, approving, and validating appraisals (ERA1.11)

Records Management: Disposition of Records RIDs

Review Item Discrepancies

- RID-LMC00154 Dialoging/collaboration requirements needed in Inc. 1?
- RID-LMC00155 Need for Disposition Agreement automation features in Inc. 1
- RID-LMC00156 Template support in Inc. 1?
- RID-LMC00157 Destruction capabilities in Inc. 1
- RID-LMC00158 Import of DAs in Increment 1?
- RID-LMC00161 Increment assignments parent/child relationship scrub

Requirements Summary Workflow Management (ERA2) ERA Increment 1 Delta SRR

Fred Robinson
November 9, 2005

Records Management: Workflow Management Scope

Workflow Management includes the following ERA system behaviors

- **Defining business rules for invoking services (ERA2.1)**
- **Managing units of work and their association to workflows (ERA2.2)**
- **Managing workflow orchestrations (ERA2.3-2.4)**
- **Estimating resource requirements for workflows (ERA2.5)**
- **Managing online forms (ERA2.6)**
- **Supporting workflow notifications (ERA2.7)**
- **Assigning and queuing tasks (ERA2.8)**
- **Prioritizing queues (ERA2.9)**
- **Managing FOIA requests (ERA2.10)**
- **Managing Privacy Act requests (ERA2.11)**

Records Management: Workflow Management Conclusions / Outlook

The following Workflow Management functionality is included in Increment 1:

- Defining business rules for invoking services (ERA2.1)
- Managing units of work and their association to workflows (ERA2.2)
- Managing workflow orchestrations (ERA2.3, ERA2.4.1-ERA2.4.4)
- Managing online forms (ERA2.6)
- Supporting workflow notifications (ERA2.7)
- Assigning and queuing tasks (ERA2.8)

The following Workflow Management functionality is allocated to later increments:

- Manipulating workflows dynamically (ERA2.4)
- Adjusting the priority of a workflow (ERA2.4.5)
- Estimating resource requirements for workflows (ERA2.5)
- Prioritizing any queue or objects within a queue (ERA2.9, ERA2.9.2)
- Managing FOIA requests (ERA2.10)
- Managing Privacy Act requests (ERA2.11)

Records Management: Workflow Management RIDs

Review Item Discrepancies

- Discussion and resolution

Requirements Summary Descriptions (ERA3) ERA Increment 1 Delta SRR

**Fred Robinson
November 9, 2005**

Records Management: Descriptions

Scope

All Descriptions functionality has been deferred

Descriptions functionality includes

- Supporting description at multiple levels (ERA3.1)
- Supporting hierarchical description (ERA3.2)
- Allowing description of all records and assets (ERA3.3, ERA3.15)
- Linking descriptions at all levels of assets and associating related materials with descriptions (ERA3.4, ERA3.12)
- Importing/exporting descriptions (ERA3.5-ERA3.6)
- Updating, approving, statusing, and deleting descriptions (ERA3.7-ERA3.8, ERA3.10-ERA3.11)
- Supporting multiple revisions and a version history (ERA3.9)
- Supporting descriptions provided via electronic forms (ERA3.13)
- Supporting annotations and notes for descriptions (ERA3.14, ERA3.16)
- Supporting collaboration on descriptions (ERA3.17)
- Assigning a unique identifier to each version of a description (ERA3.18)
- Creating descriptions with different access restrictions than the assets themselves (ERA3.19)

Records Management: Descriptions RIDs

Review Item Discrepancies

- Discussion and resolution**

Requirements Summary Authority Sources (ERA4) ERA Increment 1 Delta SRR

**Fred Robinson
November 9, 2005**

Records Management: Authority Sources Scope

All Authority Sources functionality has been deferred

Authority Sources functionality includes

- Creating, viewing, updating, deleting, and combining authority sources (ERA4.1-ERA4.4, ERA4.9)
- Linking to and using authority sources (ERA4.5, ERA4.7)
- Importing authority sources (ERA4.6)
- Managing complex thesauri (ERA4.8)
- Supporting a large number of authority sources (ERA4.10)
- Supporting collaboration on authority sources (ERA4.11)
- Supporting multiple revisions and a version history (ERA4.12-ERA4.13)
- Assigning a unique identifier to each version of an authority source (ERA4.14)

Records Management: Authority Sources RIDs

Review Item Discrepancies

- Discussion and resolution

Requirements Summary Lifecycle Data (ERA5) ERA Increment 1 Delta SRR

**Fred Robinson
November 9, 2005**

Records Management: Lifecycle Data Scope

All Lifecycle Data functionality is included in Increment 1

Lifecycle Data functionality includes

- **Imposing no practical restriction on the number of records lifecycle data elements (ERA5.1-ERA5.2)**
- **Extracting lifecycle data from various combinations of assets and metadata (ERA5.3-ERA5.6)**
- **Defining and verifying representation information for electronic records (ERA5.7-ERA5.8)**

Records Management: Lifecycle Data RIDs

Review Item Discrepancies

- RID-LMC00160 Extracting lifecycle data from records in Inc. 1?

Requirements Summary Sample Records (ERA6) ERA Increment 1 Delta SRR

**Fred Robinson
November 9, 2005**

Records Management: Sample Records Scope

Sample Records functionality includes

- **Accepting transfers of sample records (LM6.1)**
- **Accessing, reviewing, and deleting sample records (LM6.2-LM6.4)**
- **Using sample records to test system processes (LM6.5)**
- **Verifying the essential characteristics of sample records (LM6.6)**

All Sample Records functionality is included in Increment 1, except the following, which has been deferred:

- **Checking the authenticity and essential characteristics of sample records (ERA6.6)**

Records Management: Sample Records RIDs

Review Item Discrepancies

- Discussion and resolution

Requirements Summary Preservation (ERA7 - ERA9) ERA Increment 1 Delta SRR

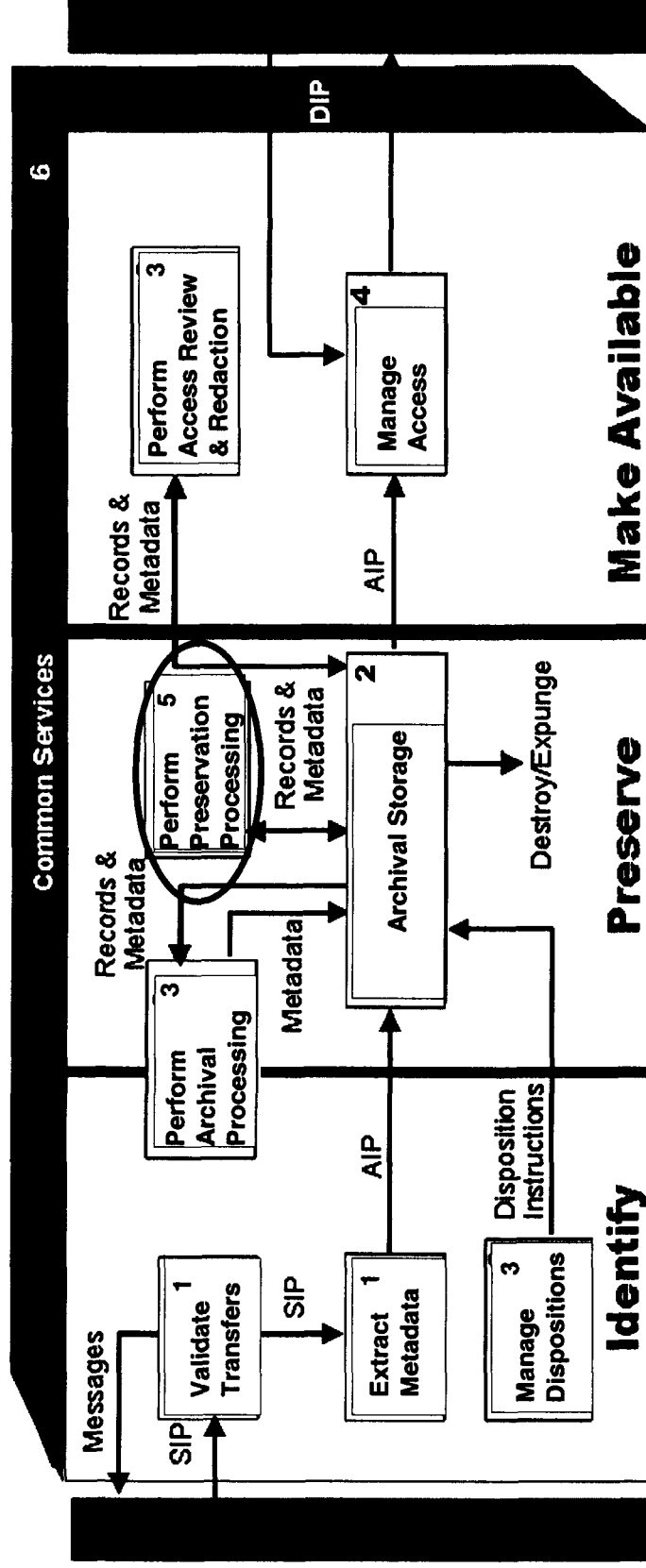
**Rodney Ripley
November 9, 2005**

Preservation: Scope

Preservation includes the following ERA System behaviors

- Managing templates (ERA7)**
- Preserving electronic records (ERA8)**
- Managing arrangements (ERA9)**

Business View



Legend:	OAIS Functions	ERA System-Level Packages	Service Oriented Architecture
	1- Ingest	Ingest	Business Application Services
	2- Archival Storage	Archival Storage	
	3- Data Management	Records Management	
	4- Access	Dissemination	
	5- Preservation	Preservation	Common Infrastructure Services
	6- Common Services	Local Services & Control ERA Management	

Requirements Summary Templates (ERA7) ERA Increment 1 Delta SRR

**Rodney Ripley
November 9, 2005**

Records Management - Templates: Scope

Templates (ERA7) includes ERA System behaviors for:

- Providing a template repository (ERA7.1-ERA7.2)
- Creating, approving, and checking templates (ERA7.3-ERA7.6)
- Associating templates with defined domains and system objects (ERA7.7-ERA7.8)
- Managing versions of templates (ERA7.9)
- Supporting taxonomies of templates (ERA7.10)
- Importing/exporting templates (ERA7.11-ERA7.12)
- Supporting collaboration on templates (ERA7.13)
- Supporting ingesting records produced by ERA itself (ERA7.14)

All Templates functionality is included in Increment 1 except:

- Importing/exporting templates (ERA7.11-ERA7.12)
- Supporting collaboration on templates (ERA7.13)

Templates RIDs

Review Item Discrepancies

- Discussion and resolution

Requirements Summary Preservation (ERA8) ERA Increment 1 Delta SRR

Rodney Ripley
November 9, 2005

Preservation: Scope

Preservation (ERA8) includes ERA System behaviors for:

- **Managing the preservation process (ERA8.1)**
- **Ingesting data files in any data type (ERA8.2)**
- **Extracting attributes from data files (ERA8.3)**
- **Identifying relationships between data files and records (ERA8.4)**
- **Performing digital adaptation (ERA8.5)**
- **Performing digital adaptation into persistent formats (ERA8.6)**
- **Storing digital items resulting from digital adaptation (ERA8.7)**
- **Providing foreign language extensibility (ERA8.8)**
- **Supporting preservation planning (ERA8.9)**
- **Providing a registry of data type descriptors (ERA8.10-ERA8.12)**
- **Providing a registry of digital adaptation descriptors (ERA8.13-ERA8.18)**
- **Associating digital adaptation processors with digital adaptation descriptors (ERA8.19-ERA8.20)**

Preservation Conclusions / Outlook

The following Preservation (ERA8) functionality is included in Increment 1:

- Ingesting data files in any data type (ERA8.2)
- Extracting attributes from data files (ERA8.3)
- Identifying relationships between data files and records (ERA8.4)
- Providing a registry of data type descriptors (ERA8.10-ERA8.12)

The following Preservation (ERA8) functionality has been deferred:

- Managing the preservation process (ERA8.1)
- Performing digital adaptation (ERA8.5)
- Performing digital adaptation into persistent formats (ERA8.6)
- Storing digital items resulting from digital adaptation (ERA8.7)
- Providing foreign language extensibility (ERA8.8)
- Supporting preservation planning (ERA8.9)
- Providing a registry of digital adaptation descriptors (ERA8.13-ERA8.18)
- Associating digital adaptation processors with digital adaptation descriptors (ERA8.19-ERA8.20)

Preservation RIDs

Review Item Discrepancies

- RID-LMC00162 Associating data file with the records they constitute

Requirements Summary Arrangements (ERA9) ERA Increment 1 Delta SRR

**Rodney Ripley
November 9, 2005**

Records Management - Arrangements: Scope

All Arrangements functionality except requirements related to Original Order are deferred to Increment 2

Arrangements (ERA9) includes ERA System behaviors for:

- Presenting electronic records in defined arrangements (ERA9.1)
- Defining arrangements (ERA9.2)
- Recreating original arrangements (ERA9.3)
- Supporting multiple arrangements (ERA9.4)
- Deleting arrangements (ERA9.5)
- Associating records with arrangements (ERA9.6-ERA9.10)
- Requiring an original arrangement (ERA9.11)
- Supporting collaboration on arrangements (ERA9.12)
- Supporting ingesting records produced by ERA itself (ERA9.13-ERA9.14)

Arrangements RIDs

Review Item Discrepancies

- RID-LMC00163 Using Archival Metadata Templates to determine original order
- RID-LMC00164 Original order and arrangement mapping inconsistent

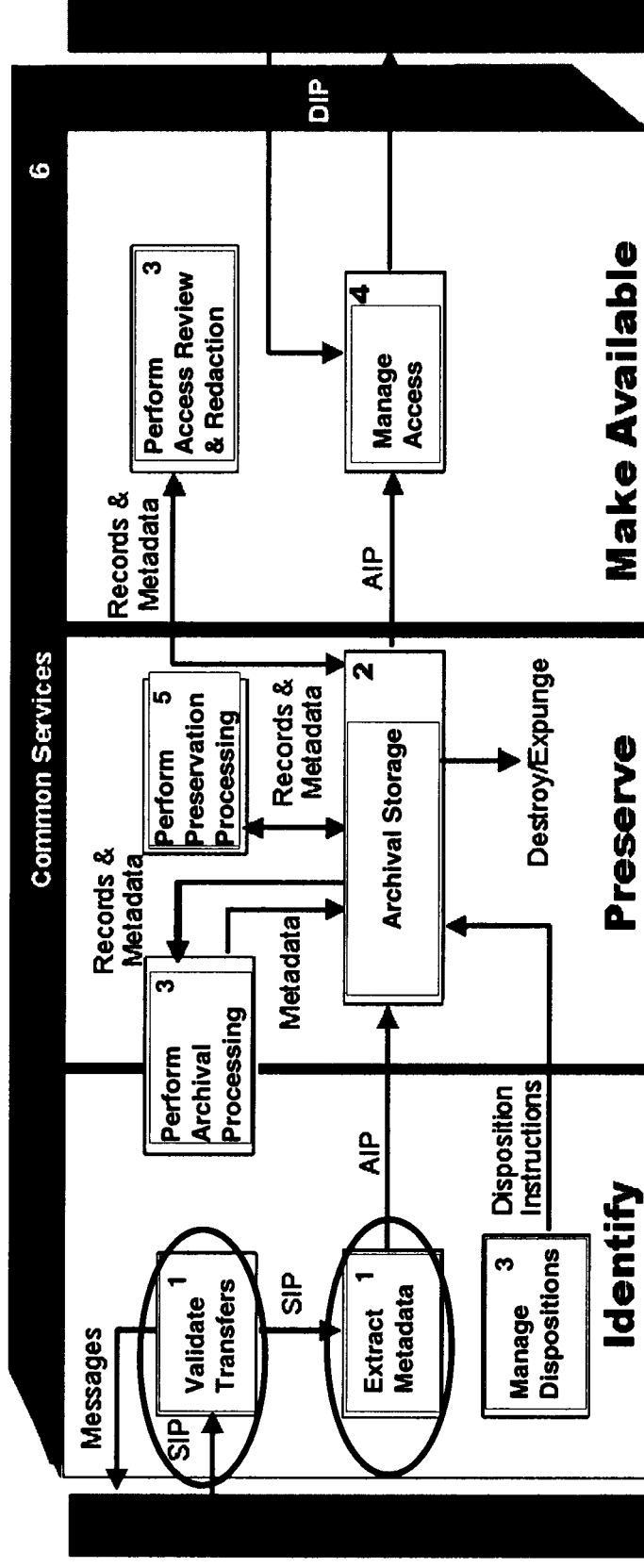
Agenda – Day 1

9:00	Introduction/Engineering Process	Steve Hansen
9:30	Increment 1 Target Release Paper	Bill Harris
10:15	Break	
10:30	Subsumed Systems and External Interfaces	Rick Rogers
11:30	Increment 1 Operational Scenarios	Rick Rogers
12:00	Lunch	
1:00	Records Management Req. Alloc. (ERA1 – ERA6)	Fred Robinson
2:00	Preservation Req. Alloc.(ERA7 – ERA 9)	Rodney Ripley
2:30	Break	
2:45	Ingest Req. Alloc. (ERA15 – ERA16)	Rodney Ripley
3:45	Access Req. Alloc. (ERA17 – ERA20)	Rodney Ripley
5:00	Wrap-up	Steve Hansen

**Requirements Summary
Ingest (ERA15 – ERA16)
ERA Increment 1 Delta SRR**

Rodney Ripley
November 9, 2005

Business View



Legend:	OAIS Functions	ERA System-Level Packages	Service Oriented Architecture
	1- Ingest	Ingest	Business Application Services
	2- Archival Storage	Archival Storage	
	3- Data Management	Records Management	
	4- Access	Dissemination	
	5- Preservation	Preservation	Common Infrastructure Services
	6- Common Services	Local Services & Control ERA Management	

Ingest: Scope

Ingest includes ERA System behaviors for:

- Accepting electronic records (ERA15)
 - Ingesting all electronic record data types (ERA15.1)
 - Accepting electronic records that are composed of more than one digital component (ERA15.2)
 - Identifying the data type of electronic records and their digital components (ERA15.3-ERA15.4)
- Transferring records (ERA16)
 - Accepting physical transfers (ERA16.1)
 - Accepting electronic transfers (ERA16.2)
 - Confirming transfer success (ERA16.3)
 - Verifying transfers (ERA16.4-ERA16.5)
 - Including information about electronic records in transfers (ERA16.6)

All Ingest functionality is in Increment 1 except the following which have been deferred:

- Use of templates to validate the archival properties of transferred electronic records (ERA16.5)
- Capability for inclusion of DOD-STD 5015.2 record profiles in a transfer (ERA16.6)

Ingest RIDs

Review Item Discrepancies

- Discussion and resolution

Requirements Summary Access (ERA17 - ERA20) ERA Increment 1 Delta SRR

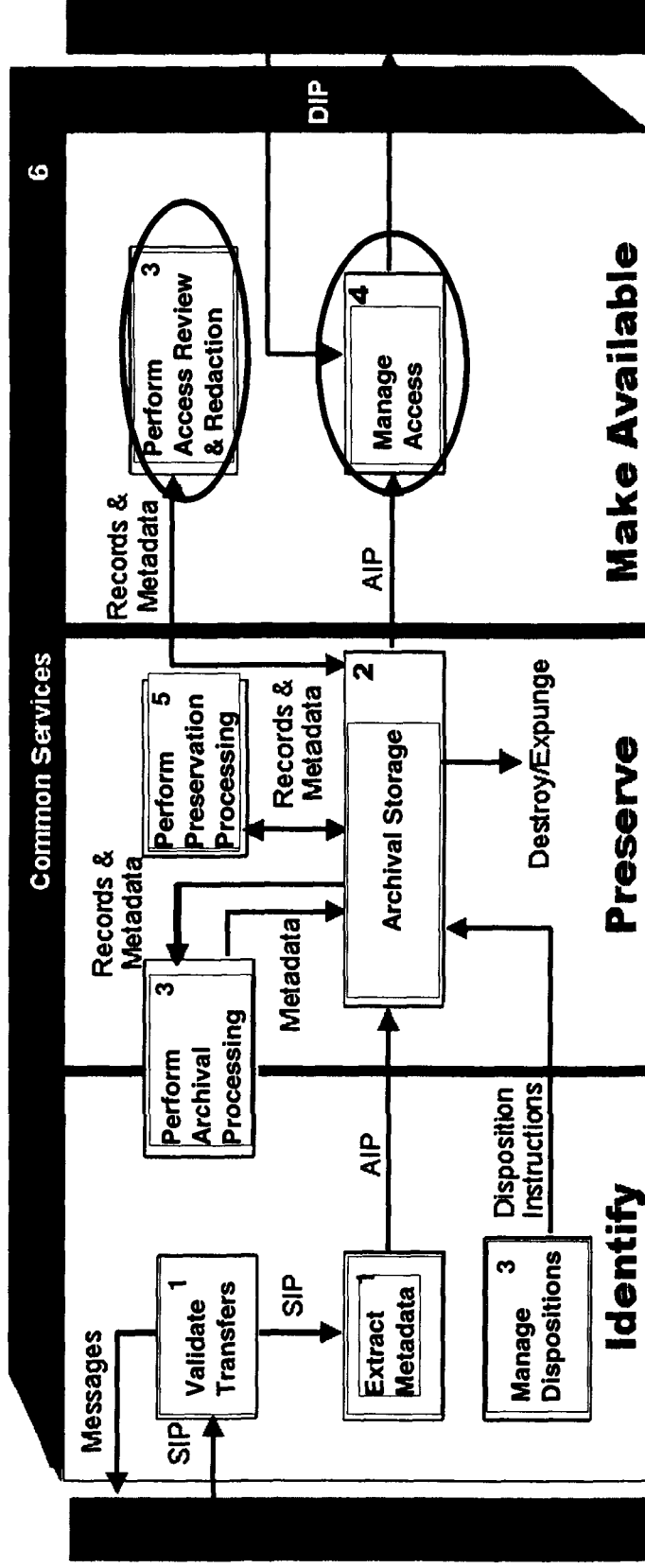
Rodney Ripley
November 9, 2005

Access: Scope

Access includes the following ERA System behaviors:

- **Defines Access Review of Assets (ERA17)**
 - **Assistance with access review process**
 - **Collaboration with equity holders**
 - **Managing determinations**
- **Defines Redaction of Assets (ERA18)**
 - **Creation and management of redacted versions**
- **Defines Search of Assets (ERA19)**
 - **Defining search characteristics**
 - **Searching hierarchies**
 - **Presentation of search results**
 - **Mediated searches**
- **Defines Access to Assets (ERA20)**
 - **Output and presentation of assets**

Business View



Legend:	OAIS Functions	ERA System-Level Packages	Service Oriented Architecture
	1- Ingest	Ingest	Business Application Services
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	6- Common Services	Local Services & Control ERA Management	Common Infrastructure Services

Access – Highlights

Capability to search records based on Records Lifecycle data using a number of search criteria features

Functionality for navigating through Record hierarchies and Records Lifecycle data

Search framework available and extensible to support additional search capability in later Increments

Capability for electronic output of all Records in original format

Deferred description, content, and various search criteria capabilities

Requirements Summary Access Review of Assets (ERA17) ERA Increment 1 Delta SRR

Rodney Ripley
November 9, 2005

Access - Access Review of Assets: Scope

Access Review of Assets (ERA17) includes the following ERA system behaviors which have been deferred to Increment 2:

- Providing Assistance with the access review process (ERA17.1, ERA17.3)
- Capturing access review results (ERA17.2)
- Updating review determinations (ERA17.4)
- Declassification of assets (ERA17.5)
- Management of review determination types (ERA17.6)
- Management of an Access Review Case (ERA17.7)

Access - Access Review of Assets RIDs

Review Item Discrepancies

- Discussion and resolution

Requirements Summary Redaction of Assets (ERA18) ERA Increment 1 Delta SRR

Rodney Ripley
November 9, 2005

Access – Redaction of Assets: Scope

Redaction of Assets (ERA18) includes the following ERA system behaviors which have been previously scheduled for later

Increments:

- **Creation of redacted assets (ERA18.1, ERA18.7)**
- **Management of redacted assets (ERA18.2)**
- **Presentation of redacted assets (ERA18.3)**
- **Creating copies for redaction (ERA18.4, ERA18.5)**
- **Capturing redaction information (ERA18.6)**
- **Providing tools for automatic redaction (ERA18.8)**

Access – Redaction of Assets RIDs

Review Item Discrepancies

- Discussion and resolution**

Requirements Summary Search of Assets (ERA19) ERA Increment 1 Delta SRR

Rodney Ripley
November 9, 2005

Access – Search of Assets: Scope

Search of Assets (ERA19) includes the following ERA system behaviors:

- Specification of the search characteristics (ERA19.1)
- Content based searching (ERA19.2)
- Navigating hierarchies (ERA19.3)
- Creation and use of default searches (ERA19.4)
- Search complexity level (ERA19.5)
- Controlling search run times (ERA19.6)
- Display of search progress information (ERA19.7)
- Presentation of search results (ERA19.8)
- Refining searches (ERA19.9)
- Selection of assets from search results (ERA19.10)
- Storing search characteristics and result sets (ERA19.11-ERA19.12)
- Mediated searching (ERA19.13)

Access – Search of Assets

Search functionality in Increment 1:

- Specification of the search characteristics (ERA19.1)
 - Search and Navigate Record Lifecycle data captured during Increment 1
 - Search by Transfer, Transferring Entity, Accession Number
 - Perform Keyword, Exact Phase, Boolean, Wildcard Search

Search functionality deferred:

- Specification of the search characteristics (ERA19.1)
 - Search by Geographic Information, Subject, Time Period, Government function and line of business, asset type, media type, record type
 - Search of Authority Sources
 - Search by Geospatial Identifiers, Proximity, Frequency of access, Concept-based searching, Automated question and answer searching
 - Search of any element defined in the asset's template

Access – Search of Assets

Search functionality in Increment 1:

- Navigating hierarchies (ERA19.3)
 - Navigate Record Lifecycle data and record hierarchies
- Search complexity level (ERA19.5)
 - Perform Simple and Multi-Variable Searches

Search functionality deferred:

- Content based searching (ERA19.2)
- Navigating hierarchies (ERA19.3)
 - Navigate to/from an Archival Description
- Creation and use of default searches (ERA19.4)

Access – Search of Assets

Search functionality in Increment 1:

- Controlling search run times (ERA19.6)
 - System will stop a search when run time limit is exceeded
 - Capability for user to adjust search run time limits
 - System control of search run time limits by user/group default values

Search functionality deferred:

- Controlling search run times (ERA19.6)
 - Refuse execution of search if estimated run time exceeds limit

Access – Search of Assets

Search functionality in Increment 1:

- Display of search progress information (ERA19.7)
 - Display search parameters selected by user
 - Display of search criteria selected while search in progress
 - Notification to user when search is complete or ends before it is complete

Search functionality deferred:

- Display of search progress information (ERA19.7)
 - Provide a search progress indicator
 - Provide an estimate to the user of how long the search will take to execute

Access – Search of Assets

Search functionality in Increment 1:

- Presentation of search results (ERA19.8)
 - Display of search results set that includes all assets meeting search criteria
 - Display explanation for the reason for withholding assets
 - Display the total number of results returned by the search
 - Capability for user to select quantity of results to be presented in results set
 - Capability for user to select the order in which results set is presented

Search functionality deferred:

- Presentation of search results (ERA19.8)
 - Exclusion from display of assets that cannot be disclosed to requesting user
 - Ranking and relevancy scoring
 - Search results at user selectable level of detail

Access – Search of Assets

Search functionality in Increment 1:

- Refining searches (ERA19.9)
 - Search with the result set returned by the initial search or preceding search
 - Refine search using any search criteria available in system
 - Search with the result set returned by the preceding search
 - Stop a search in progress in order to refine the search
- Selection of assets from search results (ERA19.10)

Search functionality deferred:

- Refining searches (ERA19.9)
 - “more like this” capability to refine search for more assets similar to those returned by search
- Storing search characteristics and result sets (ERA19.11- ERA19.12)
- Mediated searching (ERA19.13)

Access – Search of Assets *RIDs*

Review Item Discrepancies

- RID-LMC00168 Search too limited

Requirements Summary Access to Assets (ERA20) ERA Increment 1 Delta SRR

**Rodney Ripley
November 9, 2005**

Access – Access to Assets: Scope

Access to Assets (ERA20) includes the following ERA system behaviors:

- Presentation of assets (ERA20.1)
- Request and output of copies (ERA20.2, ERA20.3)
- Access independent of creation hardware (ERA20.4)
- Access independent of creation software (ERA20.5)
- Access to records and their components (ERA20.6 – ERA20.9)
- User selected output formats (ERA20.10)
- Maintaining authenticity during access (ERA20.11)

Access – Access to Assets

Access functionality in Increment 1:

- Presentation of assets (ERA20.1)
 - Capability to add support for new presentation formats
 - Capability to present text and still images

Access functionality deferred:

- Presentation of assets (ERA20.1)
 - Capability for user to select presentation of a record from available formats
 - Capability to provide tools to the user to present records in selected formats
 - Capability to present digital audio and video, line vector images, and structured data

Access – Access to Assets

Access functionality in Increment 1:

- Request and output of copies (ERA20.2, ERA20.3)
 - Capability to request copies of assets
 - Output of original bit-stream only

Access functionality previously in Increment 1 now deferred:

- Request and output of copies (ERA20.2, ERA20.3)
 - Capability for user to create an order for copies of assets
 - Capability to output all assets to media
 - Printing of address labels and packing lists for media orders
 - Capability to print all printable assets

Access – Access to Assets

Access functionality in Increment 1:

- Access independent of creation hardware (ERA20.4)
 - Capability to output assets independently of the hardware with which they were created
 - Define device specifications necessary to electronically present a record in the format chosen by a user
- Access independent of creation software (ERA20.5)
 - Capability to output assets independently of the software with which they were created

Access functionality previously in Increment 1 now deferred:

- Access independent of creation hardware (ERA20.4)
 - Capability to present assets independently of the hardware with which they were created
- Access independent of creation software (ERA20.5)
 - Capability to present assets independently of the software with which they were created

Access – Access to Assets

Access functionality in Increment 1:

- Access to records and their components (ERA20.6 – ERA20.9)
 - Full functionality
- User selected output formats (ERA20.10)
 - Capability to output selected asset formats via telecommunications

Access functionality deferred:

- User selected output formats (ERA20.10)
 - Capability for users to select the output format of selected assets from among available formats
 - Capability to output certified copies of electronic records in formats and on media selectable by user from available choices

Access – Access to Assets

Access functionality in Increment 1:

- Maintaining authenticity during access (ERA20.11)
 - Capability to present and output digital components of electronic records individually
 - Capability to present and output electronic records composed of multiple digital components

Access functionality deferred:

- Maintaining authenticity during access (ERA20.11)

Access – Access to Assets RIDs

Review Item Discrepancies

- RID-LMC00169 Inc. 1 Access capabilities**

Agenda – Day 1

9:00	Introduction/Engineering Process	Steve Hansen
9:30	Increment 1 Target Release Paper	Bill Harris
10:15	Break	
10:30	Subsumed Systems and External Interfaces	Rick Rogers
11:30	Increment 1 Operational Scenarios	Rick Rogers
12:00	Lunch	
1:00	Records Management Req. Alloc. (ERA1 – ERA6)	Fred Robinson
2:00	Preservation Req. Alloc.(ERA7 – ERA 9)	Rodney Ripley
2:30	Break	
2:45	Ingest Req. Alloc. (ERA15 – ERA16)	Rodney Ripley
3:45	Access Req. Alloc. (ERA17 – ERA20)	Rodney Ripley
5:00	Wrap-up	Steve Hansen

WELCOME

Electronic Records Archives (ERA) Increment 1 Delta System Requirements Review (SRR) Day 2

Lockheed Martin Team
November 9-10, 2005

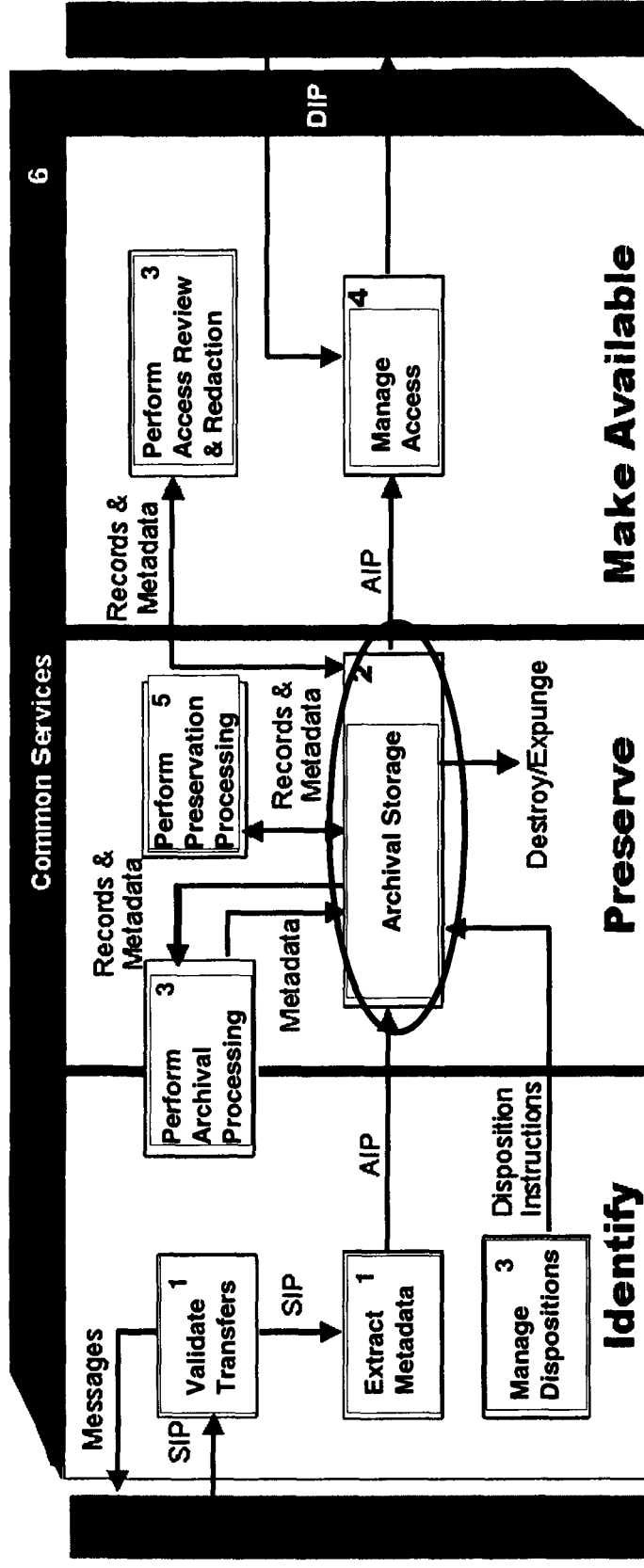
Agenda – Day 2

9:00	Archival Storage Req. Alloc. (ERA10 – ERA12)	Betty Sorber
9:30	Security Req. Alloc. (ERA13 – ERA14)	FOIA (b) 6
10:30	Break	
10:45	User Interface/Admin Req. Alloc. (ERA21 – ERA30)	FOIA (b) 6
12:00	Lunch	
1:00	System Characteristics Req. Alloc.(ERA31 – ERA33)	Bill Harris
2:15	Interface Allocations (IR1 – IR4)	Rick Rogers
2:45	Break	
3:00	Facilities and Training Plans	FOIA (b) 6
3:30	Technical Risk/PDR Expectations	Bill Harris
4:00	Wrap-up	Bill Harris

Requirements Summary Archival Storage ERA Increment 1 Delta SRR

Betty Sorber
November 10, 2005

Business View



Legend:	OAIS Functions	ERA System-Level Packages	Service Oriented Architecture
	1- Ingest	Ingest	Business Application Services
	2- Archival Storage	Archival Storage	
	3- Data Management	Records Management	
	4- Access	Dissemination	
	5- Preservation	Preservation	
	6- Common Services	Local Services & Control ERA Management	Common Infrastructure Services

Archival Storage Scope

Archival Storage includes the following ERA System behaviors:

- LM10 defines the capability to store assets
 - Store and manage copies of electronic records
- LM11 defines the capability to automatically handle removable archive media
- LM12 defines the capability to automatically manage media and the data on that media
 - Technology refresh
 - Constraints on storage of electronic file
 - Monitor and protect against media degradation

Non-Administrative RD Change to Archival Storage since SRR

- ERA 12.5 Reworded to specify that “individual electronic data files” rather than “individual electronic records” shall not span media volumes

Archival Storage Scope

Increment 1 Capabilities

- All Archival Storage functionality (ERA10, ERA11, ERA12) allocated to Increment 1 with the following exceptions

Deferred Capabilities

- Storage of copy of electronic records resulting from preservation processing (ERA10.1.2)
- Export of self-describing media (ERA10.2.1, ERA10.2.1.1)
- Recovery of an electronic record from another ERA instance (ERA10.2.3.2)
- Management of archive media refresh (ERA12.9)

Archival Storage RIDs

Review Item Discrepancies

- RID-LMC00165 Importing and exporting media not balanced**

**Requirements Summary
ERA13 and 14 (Security)
ERA Increment 1 Delta SRR**

FOIA (b) 6

November 10, 2005

ERA Increment 1 Delta SRR

Lockheed Martin Proprietary Information

NW#: 2668

DocId: 59158070

ERA13 and ERA14 (Security) Scope

ERA13 and ERA14 (Security) includes the following ERA System behaviors

- Provides infrastructure defense
- Provides I&A, access control, auditing for privileged and unprivileged users
- Provides control of user behavior
- Handles security incidents
- Provides the assurance work products required for successful C&A

All requirements are scheduled for Increment 1 except ERA13.2.1 and ERA13.2.2 (deals with TS data)

ERA13 and ERA14 (Security) RIDs

Review Item Discrepancies

- RID-LMC00166 Support for content parsing in Inc. 1?**

ERA13 and ERA14 (Security) Conclusions / Outlook

- No A-level Requirements Issues
- Security not reduced for Increment 1
- System designed to handle Instances at different classification levels in later Increments

Agenda – Day 2

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**Requirements Summary
ERA21 – ERA30
ERA Increment 1 Delta SRR**

FOIA (b) 6

November 10, 2005

ERA Increment 1 Delta SRR

Lockheed Martin Proprietary Information

NW#:2668

DocId:59158070

ERA21 User Interface Scope

ERA21, User Interface, includes the following ERA System behaviors

- Provide default workbenches (ERA21.1)
- Customizable workbenches (ERA21.2)
- Select among available workbenches (ERA21.3)
- Workbench configuration across user sessions (ERA21.4)
- Configurable user interfaces (ERA21.5)
- Foreign language extensibility (ERA21.6)
- Electronically present all supported types of electronic records (ERA21.7)
- Accept input of information by users (ERA21.8)

All functionality allocated to Increment 1

- Except presenting user interface in foreign languages (ERA21.6)

ERA21 User Interface RIDs

Review Item Discrepancies

- Discussion and resolution

ERA22 User Registration Scope

ERA22, User Registration, includes the following ERA System behaviors

- Capability to register users (ERA22.1)
- Collect information during registration (ERA22.2)
- Manage user accounts (ERA22.3)

All functionality allocated to Increment 1

- Validation of user credentials allocated to Operations (ERA22.2.9)

ERA22 User Registration RIDs

Review Item Discrepancies

- Discussion and resolution**

ERA23 User Assistance Scope

ERA23, User Assistance, includes the following ERA System behaviors

- Manage user assistance (ERA23.1)
- Help screens (ERA23.2)
- Help desk support (ERA23.3)
- User training (ERA23.4)
- Link to NARA resources from within ERA (ERA23.5)
- Specific user assistance products to specific groups of users (ERA23.6)
- Guide users through the steps of an ERA process (ERA23.7)
- User initiated messages to NARA staff member(s) (ERA23.8)

Basic User Assistance functionality allocated to Increment 1

- Targeted at Archivists, Records Managers
- Inclusion of general public users deferred
- Interface to NARA Help Desk deferred (ERA23.3.1)

ERA23 User Assistance RIDs

Review Item Discrepancies

- Discussion and resolution**

ERA24 Communications with Users

Scope

ERA24, Communications with Users, includes the following ERA System behaviors

- **Manage communications (ERA24.1)**
- **Dialoguing between NARA and users (ERA24.2)**
- **Notify users of system events (ERA24.3)**
- **Generate notices for other systems (ERA24.4)**
- **Generate notices to users (ERA24.5)**
- **User management of notices (ERA24.6)**

Communications and Notices allocated to Increment 1 Collaboration deferred (ERA24.2)

ERA24 Communications with Users RIDs

Review Item Discrepancies

- Discussion and resolution

ERA25 Event Log Scope

ERA25, Event Log, includes the following ERA System behaviors

- Log system events (ERA25.1)
- Select which information to log (ERA25.2)
- Define categories of event log information (ERA25.3)
- Define the retention period for categories of event log information (ERA25.4)
- Make event log information available upon request (ERA25.5)
- Expunge log information (ERA25.6)
- Manage electronic records created by ERA (ERA25.7)

All Event and Audit logging allocated to Increment 1

Unified Correlation and Reporting deferred (ERA25.3)

ERA25 Event Log RIDs

Review Item Discrepancies

- Discussion and resolution**

ERA26 Reporting Scope

ERA26, Reporting, includes the following ERA System behaviors

- Manage reports (ERA26.1)
- Select reports (ERA26.2)
- Select report contents (ERA26.3)
- Output reports (ERA26.4)
- Make reports available to other users (ERA26.5)

Basic Reporting allocated to Increment 1

Unified and *Ad Hoc* Reporting deferred (ERA26.1.1.2, ERA26.1.2.1, ERA26.2.2, ERA26.3.1, ERA26.3.2, ERA26.3.4, ERA26.4.3, ERA26.5)

ERA26 Reporting RIDs

Review Item Discrepancies

- RID-LMC00170 Inc. 1 report formats?

ERA27 System Administration Scope

ERA27, System Administration, includes the following ERA System behaviors

- Tools to support system level testing (ERA27.1)
- Manage system failures (ERA27.2)
- Monitor overall system state in a consolidated manner (ERA27.3)
- Adjust system parameters (ERA27.4)

**Basic Remote Management allocated to Increment 1
Unified Management and Reporting deferred (ERA27.2.2.1,
ERA27.2.2.2, ERA27.3.8, ERA27.4.8)**

ERA27 System Administration RIDs

Review Item Discrepancies

- Discussion and resolution

ERA28 Logistics Management Scope

ERA28, Logistics Management, includes the following ERA System behaviors

- Inventory management (ERA28.1)
- Configuration management (ERA28.2)
- Schedule preventative maintenance for system components (ERA28.3)

Inventory Management for Media allocated to Increment 1

Configuration Management allocated to Increment 1

Unified View and Console deferred (ERA28.1.1, ERA28.1.2, ERA28.1.5)

Scheduling preventative maintenance allocated to operations for Increment 1 (ERA28.3)

ERA28 Logistics Management RIDs

Review Item Discrepancies

- Discussion and resolution**

ERA29 User Subscriptions to Services

Scope

ERA29, Subscription to Services, includes the following ERA

System behaviors

- **Manage user subscriptions (ERA29.1)**
- **Manage subscription processing independently of other system performance functions (ERA29.2)**
- **Execute any combination of services in response to any combination of events (ERA29.3)**
- **Execute a subscription a specified number of times (ERA29.4)**
- **Time based subscriptions (ERA29.5)**

User Subscription Management deferred (ERA29.x)

ERA29 Subscriptions to Services RIDs

Review Item Discrepancies

- Discussion and resolution**

ERA30 Service Management Scope

ERA30, Service Management, includes the following ERA System behaviors

- Queue services (ERA30.1)
- Monitor services (ERA30.2)
- Categorize services (ERA30.3)
- Prioritize services (ERA30.4)
- Preempt services (ERA30.5)
- Suspend services (ERA30.6)
- Limit service execution times (ERA30.7)
- Check-pointing (ERA30.8)
- Services to be eligible for fee bearing status (ERA30.9)
- Estimate resource requirements for any ERA-provided service (ERA30.10)
- Estimate execution time for any service (ERA30.11)
- APIs for all developed services (ERA30.12)
- Service registry (ERA30.13)
- Terminate a service (ERA30.14)
- Start a service (ERA30.15)

Basic Service Management allocated to Increment 1

Prioritize services deferred (ERA30.4)

Limit service execution times deferred (ERA30.7)

Check-pointing deferred (ERA30.8)

Fee for Service deferred (ERA30.9)

Resource and time estimation deferred (ERA30.10 & ERA30.11)

ERA30 Service Management RIDs

Review Item Discrepancies

- Discussion and resolution**

ERA21 - ERA30 Conclusions / Outlook

Increment 1 summary of changes

- All basic functionality allocated to Increment 1
- Functionality unification across Services, COTS Products deferred

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System Characteristics Requirements

ERA31 – ERA33

ERA Increment 1 Delta SRR

Bill Harris

November 10, 2005

ERA System Characteristic Summary

The ERA Service Availability Predictions that were presented at SDR reflect the fully redundant ERA System as proposed

- ERA design incorporated redundant Instances
- Each ERA Instance incorporated redundant components
- All ERA Service Availability requirements are met

The current operational ERA Service Availability Predictions reflect the Increment 1 deployed implementation (with limited redundancy)

- ERA Increment 1 implementation has non-redundant Instance
- ERA Instance has non-redundant components

ERA System is being designed to meet these system characteristic requirements

- System deployed at IOC may not meet these requirements due to funding constraints, but the system deployed at FOC will
- Availability requirements mitigated through maintenance and support agreements
- System characteristic requirements will be verified through analysis

ERA System Requirements Summary

ERA System / Service Availability includes the following ERA System behaviors

- ERA31 defines ERA System Performance Requirements
- ERA32 defines ERA System Availability Requirements
 - Meet or exceed specified availability requirements
- ERA32.1 defines the Quantitative System Availability Requirements
 - Meet or exceed availability requirements as specified in RD Table B-1, ERA Availability Requirements
- ERA32.2 defines the Qualitative System Availability Requirements
 - No single point of failure
- ERA33 defines that the ERA System will be designed in the context of NARA's Enterprise Architecture

ERA Availability Summary

ERA Service Availability Prediction Summary

Service	Required Service Availability	Predicted Instance Availability as presented at SDR	Predicted Service Availability as presented at SDR	Predicted Instance Availability for Increment 1 Implementation
Access System via Electronic Interface	>0.9999	0.997 066	0.999 985	0.993 712
Acknowledgement of System Request	>0.9999	0.996 939	0.999 984	0.993 177
Search Assets	>0.9993	0.997 120	0.999 984	0.992 514
Access Assets	>0.9986	0.997 319	0.999 982	0.990 710
User Communications	>0.9986	0.996 774	0.999 982	0.992 629
Ingest-Human Aided	>0.9986	0.997 046	0.999 980	0.989 650
Media Distribution	>0.9954	0.997 204	0.999 980	0.989 962
Ingest-Automated	>0.9945	0.996 859	0.999 980	0.991 711
Redaction	>0.9945	0.996 982	0.999 979	0.991 632
Description of Assets	>0.9945	0.996 927	0.999 981	0.992 256
Access Review	>0.9945	0.996 927	0.999 981	0.992 256
Coordinate Templates	>0.9945	0.996 927	0.999 981	0.992 256
Coordinate Dispositions	>0.9945	0.996 927	0.999 981	0.992 256
User Registration	>0.9945	0.996 371	0.999 981	0.995 427

ERA Availability Design & Analysis

ERA Design Approach for requirements ERA32 to ERA32.2

The ERA Architecture provides continuous service

- The system architecture incorporates redundant Instances (e.g., SBU/Us) to preclude a single point of failure of ERA service
 - Redundant Instances not implemented at Increment 1
- Each Instance incorporates redundant components to preclude a single point of failure for the Instance
 - Increment 1 implements selective component redundancy only
- Disk Mirroring is used to preclude loss of data upon disk failure

ERA System and Instances are designed for Reliable Service

- Mean Time To Failure is maximized by selecting hardware and software components of proven reliability
- Servers and processors utilize built in error correction features

ERA System and Instances are designed for Maintainability

- SOC provides system failure identification and recovery
- Status and health check isolates failures to the faulty component
- Modular architecture incorporates hot-swappable components

ERA System Characteristic Requirements

Conclusions / Outlook

System Architecture and Design

- Maximizes ERA service availability by eliminating single points of failure via redundant Instances
- Ensures high availability of service at each Instance via redundant components
- Meets or exceeds all specified service availability requirements
- Promotes architecture evolution and upgrade implementation without compromising service availability
- ERA System is designed in the context of NARA's Enterprise Architecture

Outlook

- System Characteristic requirements will be achieved at ERA Full Operational Capability in accordance with program performance objectives

ERA System is being designed to meet these requirements and will be validated through analysis

**Interface Requirements
ERA51 – ERA54
ERA Increment 1 Delta SRR**

**Rick Rogers
November 10, 2005**

Interface Requirements

- **General interface support requirements (ERA51)**
 - Allocated to Increment 1, except defers prioritizing messages within a queue
- **Financial systems (ERA52) (IR1)**
 - Allocated to Increment 2
- **Non-electronic records tracking systems (ERA53) (IR2)**
 - Allocated to Increment 2
- **Help desk systems (ERA54) (IR3)**
 - Allocated to Increment 2
- **Transferring entity systems (ERA55) (IR4)**
 - Allocated to Increment 1

Interface RIDs

Review Item Discrepancies

- Discussion and resolution

Conclusions and Outlook

- Refining interface to transferring entity systems in detailed requirements and design

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Operations, Facilities and Training ERA Increment 1 Delta SRR

FOIA (b) 6

November 10, 2005

ERA Increment 1 Delta SRR

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Operations and Facilities Agenda

Introduction

Operations and facilities requirements

Operations Support Approach

- Centralized Operation
- Continuity of Operations

Facilities Approach

- Strategy
- Baseline assumptions

User Assistance

Operations and Facilities Requirements- Driven Design Goals and Funding Profile

ERA operations, maintenance, and facility requirements support the ERA system by providing:

- Availability of ERA services
- Stability to meet ERA performance goals for Increment 1
- Provide user assistance
- Flexibility to support the ERA architecture and design without imposing unnecessary constraints

Incr. 1 Operations and Support Approach

Changes due to requirement or funding profile

- Limit help desk hours of operations to weekdays
- Limited the SOC hours of operations to weekdays
- On Call support for off hours available
- No backup SOC
- Limited user access to system
- No users access at the sites

Provide centralized system operation centers (SOC) to perform system administration

- Manage each Instance from assigned SOC at the correct classification level

Individual site(s) retain the ability to operate independently by providing local system administration capabilities

- Protects operations from Wide Area Network (WAN) outages

Facility Approach

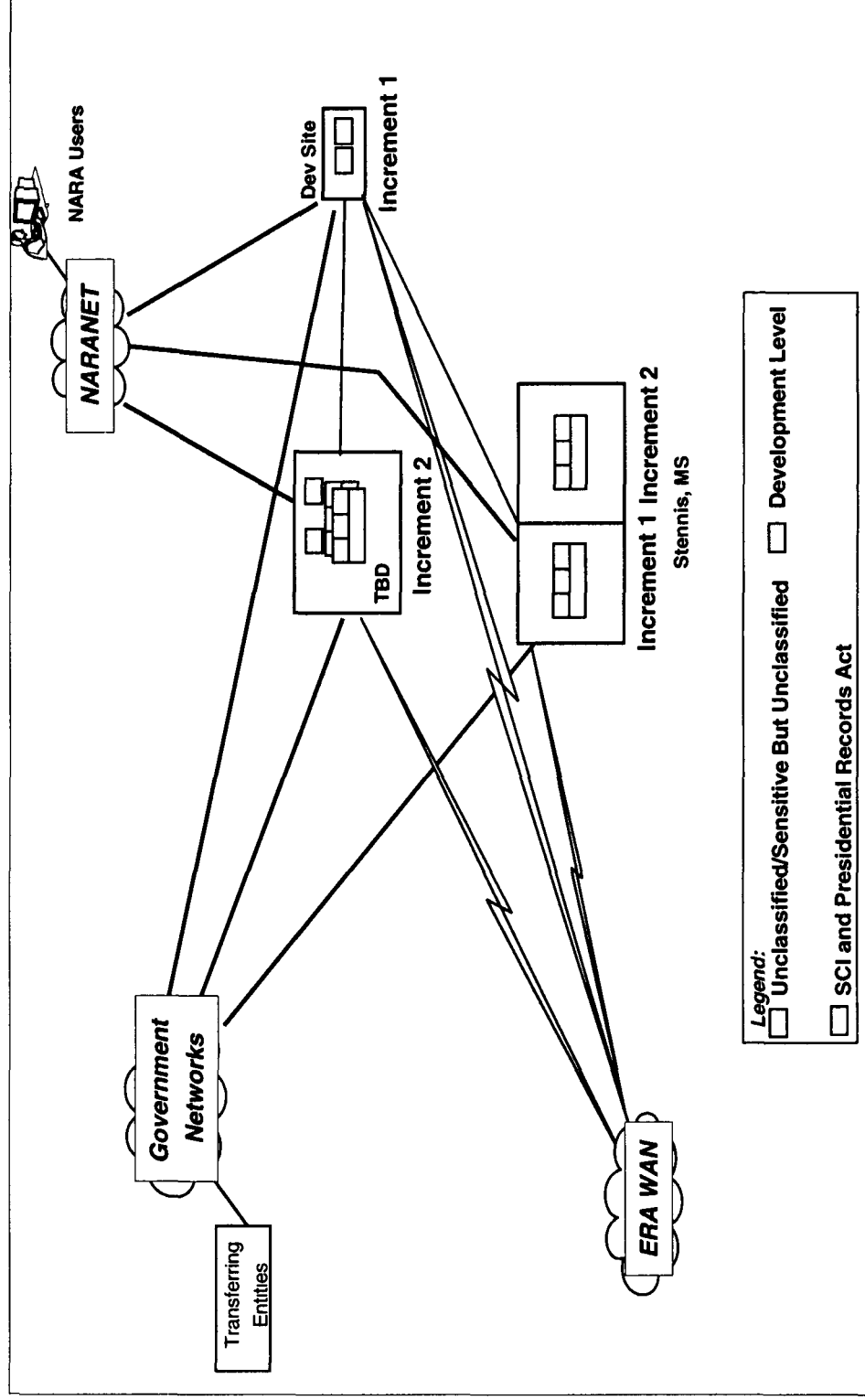
Facilities for Increment 1

- U/SBU Instance located at Stennis Space Center in Mississippi
- U/SBU SOC located in Greenbelt, MD
- Development and System Integration labs in Greenbelt, MD

NARA to acquire the Facility at Stennis

- Government owned or operated facility
- NARA & LM team to perform facility build-out work
- NARA & LM team to provide facility maintenance activities
- NARA to provide physical security for Stennis site

Facilities Approach Cont.



Baseline Assumptions

- Tape back storage provided at least 100 miles from site
- Facility layout will provide for growth for redundant hardware

Initial User Assistance Approach

Working with NARA User groups to identify training needs

- Training approach will adjust to fit user profile
- Training approach will vary for different user classes

Develop classroom training tailored to user group

- Will be in modular form to allow user groups to receive appropriate training
 - Managing templates, workbenches, and services
 - Managing record schedules
 - Managing the disposition of records, workflow, and online forms
 - Security, archival storage, administration
 - Search capabilities

Initial User Assistance Approach Cont.

Conducted by LM as train-the-trainer

- NARA will conduct training for the user groups
- Scheduled prior to Operational Acceptance Test and at appropriate intervals thereafter

Recommended training material:

- Instructor Guides
- Student Guides
- Lab Guides
- Exam Manuals

Provide online user aids

- Online user aid based upon needs assessment

Help Desk

Help desk

- Provide a 3 tier structure
 - Level 1 call center to handle the majority of user issues
 - Level 2 & 3 system administrators provide escalation path for difficult problems
- Automated trouble ticket processing
- Notify and report on system status

Conclusion

Provide a facility and operations requirements to meet budget constraints and support of ERA requirements and objectives

- Limited operations capability
- Lower level of Continuity of Operations support
- Ability to meet adjusted ERA availability goals for Increment 1
- Limited ERA user assistance
- Extensible to scale to full ERA Architecture

LMC Technical Risk ERA Increment 1 Delta SRR

**Bill Harris
November 10, 2005**

LMC Technical Risk

Technical Risk	Description	Mitigation Activities
Record Authenticity (28)	When retrieved many years in the future, the authenticity of records must stand up in court of law and in court of public scrutiny.	1) Institute Information Assurance (IA) control procedures to ensure Identification, Integrity, Confidentiality, Accountability, and Non-Repudiation 2) Ensure records are captured within the ERA system that can be traced to its origination 3) Develop design approach for capturing records and build consensus with key stakeholders: ERA Principal Archivist, NARA subject matter experts, and ERA PMO

LMC Technical Risk (Continued)

Technical Risk	Description	Mitigation Activities
Security Accreditation (9)	ERA System design and Service Component designs must be accredited to fully meet technical security guidelines	1) Engage all LM IPTs to implement steps in System Security Plan 2) Address issues such as privacy, IA controls, and security infrastructure with NARA stakeholders
Subsumed Systems (2, 3, 4)	ERA must provide the functionality currently within the systems to be subsumed, and ERA must also include legacy data migrated from these systems.	1) Ensure completeness of ERA functional requirements to enable transition of subsumed systems 2) Effectively allocate system migration based on Increment schedule 3) Ensure approach to managing change to and retirement of legacy systems 4) Develop Data Migration Plan for each subsumed system

LMC Technical Risk (Continued)

Technical Risk	Description	Mitigation Activities
Flexibility of Workflow	Business workflow processes may change radically over time, and workflow systems need to be flexible so that automated systems can be adjusted accordingly	1) Coordinate ERA system workflows with changing state of NARA business processes 2) Adopt effective tools and techniques to address workflow flexibility within ERA system Increments 3) Ensure that software design enables update of workflow configuration on an “as needed” basis to meet the changing needs of the users
Data Interchange with Transferring Entities	When a transfer does not match the ICD, the records life cycle metadata must be transformed by either the Transferring Entity, or by the ERA System	1) Clearly define ERA Mediation Service’s canonical schema in the Transferring Entities ICD 2) Define roles and responsibilities for development of data mediation and transformation adaptors

LMC Technical Risk (Continued)

LM and the ERA PMO are actively managing the technical and programmatic risks of the ERA program through:

- Regular risk management sessions**
- Risk mitigation strategy sessions**

Increment/Release Requirements & Design Reviews

ERA Increment 1 Delta SRR

Bill Harris

November 10, 2005

Engineering Methodology

FOIA (b) 4

Increment/Release Requirements and Design

FOIA(b) 4

Specification Tree

FOIA (b) 4

Preliminary Design Review (PDR)

FOIA (b) 4

Critical Design Review (CDR)

FOIA(b)4

Conclusion and Wrap-Up

FOIA (b) 4

Thank you for your comments, questions, and time !