Enterprise Solution Modernization (ESM) Update

NCUA Board Briefing

June 21, 2018
Agenda

- ESM Program – Current and Future Projects
- Examination and Supervision Solution & Infrastructure Hosting (ESS&IH) Contract Award
- Credit and Deposit Analytics Strategy
- Loan & Share Data Standardization and Expansion
- Data Strategy and Framework Initiative
<table>
<thead>
<tr>
<th>ESM Program – Current Projects</th>
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<tbody>
<tr>
<td><strong>Examination and Supervision Solution</strong></td>
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<tr>
<td>• Aires Replacement, Central User Interface, Secure Transfer, ESM Infrastructure</td>
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<tr>
<td>• Aligned to Strategic Goals and Objectives 1.1, 1.2, 3.2, and 3.3</td>
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<tr>
<td>• Board approved funding through 2019: $20.4 million</td>
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<td>• Capital funds obligated through April 2018: $2.6 million</td>
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<td><strong>Credit &amp; Deposit Analytics</strong></td>
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<tr>
<td>• Replacement and improvement of current analytic tools</td>
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<td>• Future Predictive Analytics</td>
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<tr>
<td>• Aligned to Strategic Goals 1.1, 1.2, and 3.2</td>
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<tr>
<td>• Board approved funding through 2019: $250,000</td>
</tr>
<tr>
<td>• Capital funds expended through April 2018: $50,000</td>
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<td><strong>Loan &amp; Share Modernization</strong></td>
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<tr>
<td>• Standardize and modernize the member loan and share download for examination</td>
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<tr>
<td>• Aligned to Strategic Goals and Objectives 1.1, 1.2, and 3.2</td>
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<td><strong>Data Strategy &amp; Framework Initiative</strong></td>
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<tr>
<td>• Data governance, enterprise analytic strategy, and education</td>
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<tr>
<td>• Aligned to Strategic Goals and Objectives 1.2, 3.2, and 3.3</td>
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<tr>
<td>• Board approved funding to date: $0.8 million</td>
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<tr>
<td>• Capital funds expended through April 2018: $0.45 million</td>
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**ESM Program – Future Projects**

| Data Collection and Sharing Solution | • CU Online, FOMIA, and GENISIS Replacement  
|                                     | • Logging, workflow, records management, and document management capabilities  
|                                     | • Board approved funding through 2019: $3.1 million  
|                                     | • Capital funds expended through April 2018: $0.68 million |

| Other Legacy Application Replacements | • Time Management System  
|                                      | • Management Automated Resource System  
|                                      | • National Supervision Policy Manual Tools  
|                                      | • Management Information System  
|                                      | • Cybergrants  
|                                      | • RATE |

| Additional Capabilities | • Examination Scheduling  
|                         | • Reference Materials |
ESS&IH CONTRACT AWARD
June 2017
• Request For Proposal (RFP) Issued

Sept-Dec 2017
• RFP Closed
• Evaluation of written proposals

Jan-Apr 2017
• Vendor demos
• Evaluation of Proposed Solution Capabilities

May 2018
• Contract Award

June 2018
• Project Kick-off
Contract Award Details

• **Partner Selected:** Deloitte.

• **Scope:** Full system development and integration support and operations/maintenance services. Key solution components include:
  
  • **Infrastructure Hosting** – secure, cloud-based infrastructure (IaaS) for future exam-related solutions

  • **Central User Interface** – common platform for access to mission-essential applications

  • **Examination and Supervision Solution** – tool to manage the examination process (i.e. AIRES replacement)

MetricStream

Governance, Risk, Compliance and Quality Management Solutions

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Funding approved by the NCUA Board in the capital budget through 2019 is sufficient to implement and deploy the ESS&IH solutions. Operations and maintenance costs, projected at $12.6 million, will be requested during the appropriate budget cycles.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Approved Capital Funding 2015-2019</td>
<td>$20.4 Million</td>
</tr>
<tr>
<td>Net Obligations as of 4/2018: Planning, Market Research, Alternatives Analysis, Procurement and Contract Competition</td>
<td>$2.6 Million</td>
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<tr>
<td>Remaining Capital Funds as of 4/2018:</td>
<td>$17.8 Million</td>
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<td>Planned Spending Obligations:</td>
<td></td>
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<td>Development and implementation of ESS (recent Deloitte award):</td>
<td>$11.5 Million</td>
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<tr>
<td>Program Management Support Services:</td>
<td>$3.3 Million</td>
</tr>
<tr>
<td>Project Management Reserve:</td>
<td>$3.0 Million</td>
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Year One Contract Activities

Discovery Phase – project ramp-up and collaborative sessions with NCUA business and technical stakeholders

- Functional and technical specification documentation
- Agile Plan
- Security plan
- Master schedule
- Stakeholder communication plan

Iteration 1 – establish and maintain the secure, cloud-based infrastructure hosting platform

- Infrastructure as a Service setup and security authorization
- MetricStream installed
- System architecture and design

Iteration 2 – establish the Central User Interface (CUI) and secure transfer capabilities

- Set-up and configure CUI and SFT
- User interface design
- Integrate with existing identity/access management services and implement single sign on for staff

Iteration 3 – configure ESS and deploy to small subset of examiners

- Requirements configuration
- User acceptance testing
- Training and stakeholder communication
ESS&IH Projected Timeline

- AIRES Replacement
- Central User Interface
- Secure file transfer
- Technical Foundation

Proposal Evaluation and Contract Award

Request for Info and/or Request for Proposal

Market Research and Planning

Configuration

Training and Implementation

Retire AIRES

AIRES Replacement Phased Deployment Approach:
1st Release – Small group of examiners
2nd Release - RFE, SCUEP, Supervision Contacts, Corporate Credit Unions
3rd Release - Other Credit Union Contacts

2018

2018-2019

2019-2020

2021

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CREDIT AND DEPOSIT ANALYTICS STRATEGY
Credit and Deposit Analytics Solution (CDAS)

Purpose:
- Replace the loan and share query functions in AIRES with a user friendly tool
- Provide an alternative to custom built analytic tools by examiners
- Promote consistency and efficiencies on examinations

Activities:
- Issued a Request for Information in July 2017
- Conducted market research and vendor demonstrations
- Initiated an analytic survey to NCUA field staff
- Contracted MITRE to review the acquisition strategy and approach
Market Research Results

- Limited market of vendors
- Most federal agencies custom build analytics
- Standardized and expanded data is critical to fully utilize analytic options and enhance analytic capabilities

Next Steps

- Replace existing AIRES functionality with improved reports, queries, and dashboards in ESS
- Offer custom query capabilities
- Explore potential for trending analysis of loan/share data
- Conduct additional market research and determine analytic solution options if the agency pursues a standardized and expanded data set
LOAN & SHARE DATA MODERNIZATION
Exam Data Collection Expansion

- October 2017 – Request for Information (RFI) published in the Federal Register
- Expansion and standardization of the loan, deposit, and investment fields collected during the examinations

Goals of this expansion include:

- More consistent examination process
- Efficient use of examiner time
- Reduce on-site examination time
- Improved data reliability and quality
- Enhanced objectivity and data analysis
RFI Comments & Outreach Efforts

Written Comment Period
11 Total Responses with over 100 comments
- 5 Trade Groups
- 5 Credit Unions
- 1 State Supervisory Authority (SSA)

Outreach Calls (2/2018 – 3/2018)
25 Participants with over 300 comments
- 15 Credit Unions
- 5 Core Data Processors
- 5 Offline Vendors
RFI Response Common Themes

- Data security/PII
- Data availability
- Vendor reliance
- Implementation timeline
- Burden on small credit unions
- Additional outreach
Loan/Share Modernization Next Steps

• Address challenges/concerns from comment letters and stakeholder calls
• Refine the field list to support modernization strategy
• Determine data collection, cleansing, and storage options
• Prepare alternatives and recommendation for NCUA Board
DATA STRATEGY AND FRAMEWORK INITIATIVE
Discovery Results

- Data structures are designed to optimize the collection of information, but not consumption and analysis.
- Data collected is good quality, but rules for its use and analysis are poorly understood.
- Data management practices are informal and ad hoc, dependent on “heroes” and heroic efforts to perform data integration, manipulation, validation, transformation, and quality control activities.
- An enterprise-wide data governance program to improve data quality and data management was unanimously recognized by agency staff.
Benefits of the Enterprise Data Governance Program

- Generates accurate, accessible and reliable data
- Improves agency-wide understanding of data definitions and sources and less reliance on individual knowledge
- Establishes centralization of common data for analytics facilitating better use of analytic tools and consistent, repeatable results
- Reduces time preparing the data for analysis resulting in more time analyzing the data
- Establishes foundational data governance critical for ESS implementation to ensure new and legacy data is properly integrated for analytic and reporting purposes
- Sets the stage for future analytic opportunities through CDAS and for the virtual examination
Enterprise Data Governance Program Roadmap

Design (2018-2019)
- Define the Enterprise Data Governance Framework
- Establish the Enterprise Analytic Data Council
- Staff full-time data stewards and business data lead
- Provide data management and governance training

Pilot (2019-2020)
- Engage ESS team regarding data integration
- Build enterprise analytic data environment for two data domains
- Conduct data management study

Operate and Improve (2020-Ongoing)
- Implement approved organizational changes
- Continually assess efficiency and effectiveness of framework and environment
- Build additional data domains
QUESTIONS?