

Future of MOCAS

Presented by:

Michael Graham, Program Manager, MOCAS LIM, DCMA Benjamin Novotny, Deputy Program Manager, MOCAS LIM, DFAS Elizabeth Gibbs, Project Manager, MOCAS Data Analytics, DFAS



MOCAS Overview and Case for Change



MECHANIZATION

OF

CONTRACT

Administration

SERVICES

What is MOCAS?

Integrated system supporting post-award administration and contract payment

Who uses MOCAS?













DCMA

DFAS

Procurement Offices











DCAA

DTRA

WHS

Why MOCAS?

Pays More Complex Contracts

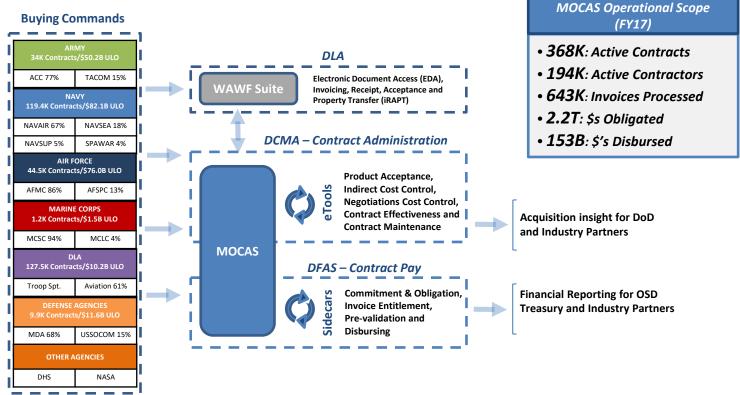
- ✓ Mixed-Type
- ✓ Multi-Service
- ✓ Multi-Year
- ✓ Multi-Deliverables
- √ Foreign Military Sales
- √ Foreign Currencies

Makes Financing Payments

- ✓ Progress Payments
- ✓ Performance-Based Payments
- ✓ Commercial Item Financing
- ✓ Interim Cost Payments

MOCAS – A Vital Component of the DoDs Acquisition Mission





MOCAS – System Timeline



1960's 1990's 2000 2002 **Prime Candidate** Termination

• In 1960s, MOCAS designed as a joint service single accounting and contract system.

- By 1990s, MOCAS was more than 30 years old and had become costly to maintain.
- March 23, 2000 memo announced that October 1, 2002 scheduled retirement date for MOCAS.
- August 29, 2000, a conversion/closeout integrated process team (IPT) was assembled.
- January 01, 2001 began the interim period known as the MOCAS "brownout" (Legacy System).
- October 1, 2002 scheduled retirement date for MOCAS.

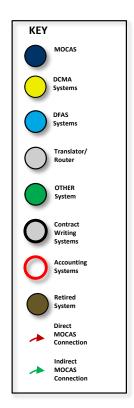


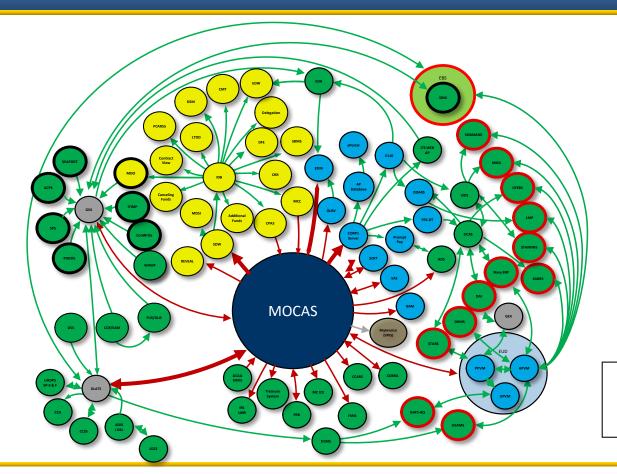
- Decades long Sustainment only System Designation gave way to increasing sustainment risk and inefficiency.
 - No significant architectural changes in 30+ years
 - No change in basic design
 - No changes in COTS
 - Long term maintenance mode
 - No new development other than SCRs (business)
 - Data changes and other directives mostly waived, addressed by...
 - ... DCMA/DFAS Architectural pattern: leave MOCAS alone, add eTools (DCMA) and Sidecars (DFAS) outside of MOCAS to improve capabilities.

MOCAS eventually re-designated a System of Interest, and now a Target System.

MOCAS - System Interfaces







DoDAF SV-1 View

MOCAS Problem Statement



The DoD has a critical need for a sustainable, efficient and effective approach to processing centralized Procure-to-Pay (P2P) functions on the complex contracts that constitute 51% of DoD procurement spend. This centralized function includes the following:

- Entitlement
- Financial Oversight
- Contract Management
- Contract Closeout



Since the 1960s this functionality has been provided by the MOCAS system. The system last received a major technical upgrade during the mid-1980s.

Problem: DCMA and DFAS must improve the efficiency of moving changes/directives from initial concept to working solutions in production.

Program Vision: To develop and execute a plan in cooperation with stakeholders to ensure the continued availability of the critical functionality above in the To-Be environment by evaluating available technologies and investment options and identify the alternative that provides the best value to the department.



Investing in the Future of MOCAS

Organization



Business Processes & Priorities - Integrate & Align Resources between DCMA & DFAS



Single Voice of the Customer - Develop Shared Understanding of Requirements between DCMA, DFAS, & Interfacing Partners Early in the Lifecycle

Development Lifecycle



Increase Development Cycle Velocity - Identify Design Issues through Earlier and Coordinated Requirements Analysis, Decrease Development/Testing Timeframes



Joint PMO with

Reduce Regression Risk -Reduce the complexity of managing multiple SCRs

Technology



Technology Insertion - Increase our Development Flexibility and our Change Efficiency by Enhancing the Technical Environment



Reduce Complexity of Code Base - Support Easier and Faster Changes to a Streamlined Code Base

CAS LIFECYCLE INVESTMENT MANAGEMENT (LIM)

OR SUBJECT STREET TO THE TASKS

New Business Process Proces

New Business Processes Pedia Replied









Initiative 1: Organizational Alignment

JPMO Organizational Structure and Responsibilities

DCMA C/S Lifecycle Investment Management

- Program strategy, organization & direction
- Roles, responsibilities, accountability, decision rights & governance
- Executive sponsorship, funding, budgeting, and staffing
- Financial controls, risk management, and performance monitoring
- Program execution, balancing cost & schedule constraints
- Executive reporting & communication
- Support and direction to DPM and Division Leads

PM DPM

PM support, Division Lead supervision

- Integrated Master Schedule, baseline, EVM, status reporting / metrics
- Risk management, budget / CPIC support
- Financial Improvement and Audit Readiness (FIAR) coordination
- Quality Management Plan & QA audits

CYBER SECURITY

System Security Plan (SSP)

Security controls, policies &

procedures implementation

Integration of IA requirements

definition into the SCR process

DIACAP to RMF transformation:

system categorization: DoD FISMA

reporting; Security Plans of Action

development & tracking: security

Maintenance of Continuity of

Data sensitivity classification

Verification of controls aligned

with FISCAM audit guidelines

Audit Readiness Support

& Milestones (POA&M)

reviews & remediation

Operations Plan (COOP)

Incident response plan

Risk assessment

PROGRAM COORDINATION

- Business requirements analysis
- and documentationBusiness requirements baseline maintenance
- Intake process coordination
- Material Development Decision (MDD) coordination
- Test Readiness Review (TRR)
- User Acceptance Testing (UAT) (Sys Acceptance Certification)
- Stakeholder identification, engagement & coordination
- Organizational Change Management (OCM): Communication, Training, Change Agents Network and Business Readiness Validation
- Multi-channel communication / outreach
- Audit Readiness Support

SYSTEMS ENGINEERING

- System requirements analysis
- Technical requirements baseline
- Effort estimation (ROM)
- System architecture & high-level design
- Detailed system design
- System development & integration testing
- Technology modernization AoA & technical research
- Prototyping
- EDI, data management: data model updates, data architecture, data standards. data quality / consistency
- SDW and reporting
- Audit Readiness Support
- Sys Requirements Review (SRR), System Design Review (SDR), Detailed Design Review (DDR)

PROGRAM SUPPORT

Integrated Master Schedule

- Earned Value ManagementLife Cycle Cost Estimate (LCCE)
- maintenanceTest & Evaluation Master Plan
- Budget preparation & maintenance / Capital Planning & Investment Control (CPIC)
- Standardized business processes enablement

(TEMP) maintenance

- Quality Assurance (QA) / performance metrics
- Program risk management
- Program's Life Cycle
 Sustainment Plan (LCSP)
 development & maintenance

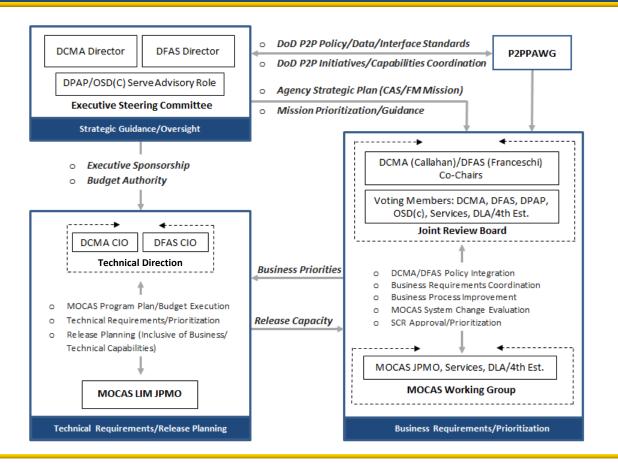
OPERATIONS COORDINATION

- Production Release Management
- Operational Readiness Review (ORR)
- Incident management
- Configuration management
- Configured technical baseline maintenance
- Code repository maintenance: Configuration reports on status changes of configuration items
- DISA coordination
- Asset management
- Release planning

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MOCAS Enterprise Governance Model



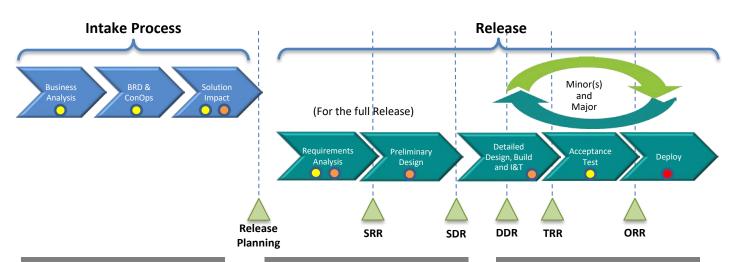




Initiative 2: Standardized Software Development Lifecycle (SDLC)

Target Software Development Lifecycle (SDLC)





Define Capabilities for a Release

For each of the business needs:

- Analyze the Business Problem
- Produce Business Requirements (BRD)
- Estimate cost and effort for this capability
- Multiple Business Problems are grouped into a Release (Release Planning)

Requirements and Design

For each of the business needs:

- Analyze system requirements (Systems Requirements Review)
- Map requirements to system components
- Preliminary design to support the requirements (System Design Review)
- This is for the entire Release

Build, Test & Deploy

For each minor/major Release:

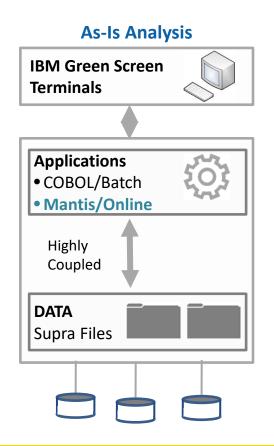
- Complete Detailed Design (Detailed Design Review)
- Code the solution and prepare for user testing (Test Readiness Review)
- After acceptance prepare for deployment to Production (Operational Readiness Review)

Key: ○ Program Coordination ○ Systems Engineering ○ Operations Coordination



Initiative 3: MOCAS Modernization





MS B Planning

Conceptual Design and Prototyping

GUI/Portal

Code Conversion

Data
Abstraction/
Normalization
Study

To-Be Insertion

Presentation

- HTML 5
- User Workbench/Portal



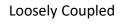
Loosely Coupled

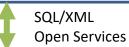


Open Services

Application

- Business Rules
- Workflow Engine
- Enterprise Service Bus





DATA



- Object/relational data storage
- Data sharing/data mart concepts

Technology Insertion Strategy



Technical Strategy Conceptual Design and Prototyping

Detail Design

Release Management

Current (As-Is) Analysis	Evaluation/Study	Potential (To-Be) Capability
Batch Oriented Processing	On-Line Transactions	Code Redesign/Refactoring
	Workflow Driven	 Enhanced Workflow Rules Based Logic
Static and Batch Driven Reports	Dynamic Reports Created On-Demand	 Event Notifications Improved Reporting
Need to Pull Reports/Status from MOCAS	Subscribing to Events and Status Changes	• Event Reporting
Hard Coded Business Rules and Logic	Rules Based Architecture	Enhanced WorkflowRules Based Logic
Antiquated Data Storage Techniques	Object/Relational Data Storage	Database TechnologyData Optimization
Multi-Level Data Translations and Maps (XML->EDI->UDF)	Data Standardization	Native XML Support
FTP of Files at the Interfaces	Adoption of Service Oriented Interfaces	Code Redesign/Refactoring
Static Column Oriented User Screens	Dynamic Full Featured GUIs	User Interface Improvements
Multiple MOCs	Consolidation/Integration	Database TechnologyData Optimization



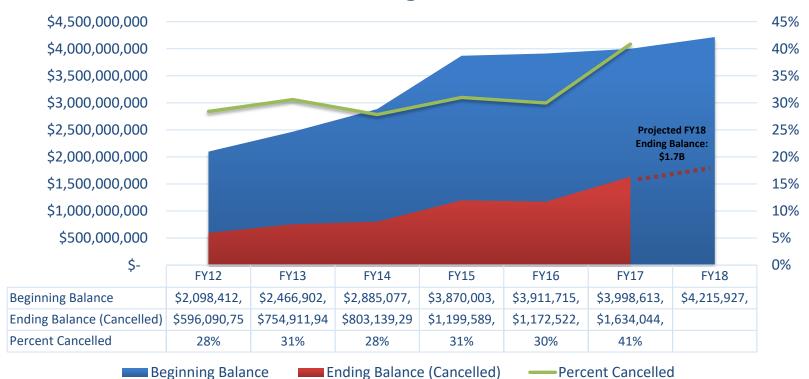
MOCAS Data Analytics



Cancelling Funds by Year



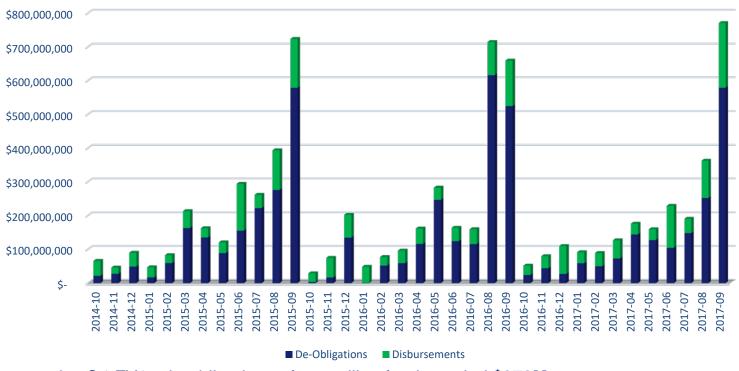
Cancelling Funds



Decreases in Cancelling Funds by Transaction Type



Disposition of MOCAS Cancelling Funds



- Q4 FY17 de-obligations of cancelling funds totaled \$978M
- In FY17, de-obligations comprised **67%** of the reduction in cancelling funds balances



High Risk

410 CLINs,* \$182M

- -Line item delivery date exceeds cancelling date
- -Payment Instructions DO NOT use older funds first
- -Residual balance indicates additional deliveries are expected

Medium Risk

70 CLINs, \$260M

- -Line item delivery date exceeds cancelling date
- -Payment Instructions use older funds first
- -Residual balance indicates additional deliveries are expected

Low Risk

914 CLINs, \$818M

- -Line item date exceeds cancelling date (at contract level)
- -Residual Balance indicates additional deliveries are expected

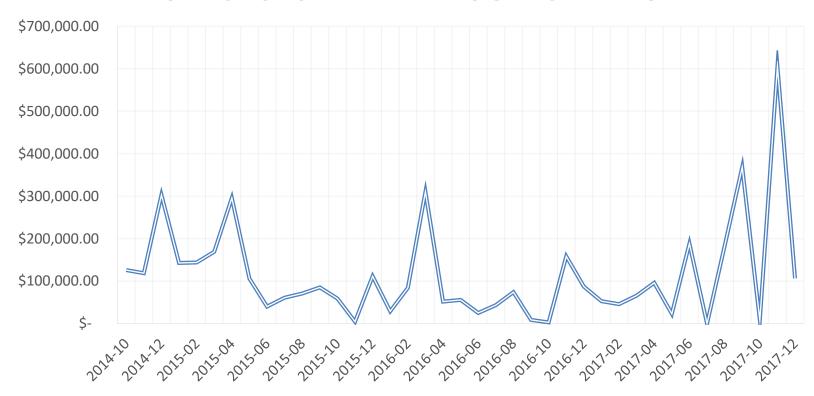
High Risk - Issue By				
Name	Percent of CLINs			
Air Force Installation Contracting Agency	45%			
DCMA St. Augustine	7%			
Air Force Sustainment Center	6%			
NAVAIR Warfare	5%			
HQ US ARMY TACOM	4%			
Air Force Life Cycle Management Center	4%			
NAVSEA HQ	3%			

	Air Force Installation Contracting Agency Breakdown		
ı	Command	Percent of CLINs	
1	Air Force Center for Environmental		
ŀ	Excellence	93%	
ł	Air Force Installation and Mission		
ŀ	Support Center	7%,	

High Risk - Contractor		
COMPANY	Percent of CLINs	
ARGO/LRS JV	13%	
JACOBS GOVERNMENT SERVICES C	10%	
LOCKHEED MARTIN CORPORATION	9%	
RAYTHEON COMPANY	8%	
BOEING COMPANY, THE	8%	
PLEXUS SCIENTIFIC CORPORATIO	5%	
WESTON SOLUTIONS, INC.	5%,	
NORTHROP GRUMMAN SYSTEMS COR	4%	



NATO DISBURSEMENT AMOUNTS BY MONTH





VOLUME OF MOCAS INTEREST PAYMENTS AT VARYING DOLLAR AMOUNTS (FY17)



Dollar Amounts

In FY17, 8,038 interest payments were paid under \$50 (5,219 to large businesses)





