



Federal Enterprise Architecture Update

June 4, 2009

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Agenda



- Context – Last Year, Federal Budget
- Federal Enterprise Architecture
- Segment Architecture & Assessment
- Recovery.gov Conceptual Architecture
- Specific Collaborations with DoD
- Questions & Answers



Last Year's Take Away

- Theme – DoD-wide Federation of Architectures:
 - Services & Defense Agencies
 - Combat Commands
- 9 out of 10 said:
 - Information sharing with non-defense federal partners
 - The one – information assurance, now secure information sharing
- Federation Drives Information Sharing if:
 - Communities of Interest are organized effectively
 - Enterprise and segment architectures provide context
 - Technical (data) frameworks are mature
 - Span and coherence of governance & collaboration



Federal IT Budget

For Fiscal Years 2008, 2009, and 2010

(dollars shown in millions) May 2009

Agency	FY2008 Actuals	FY2009 Enacted	FY2010 Request	Change from FY2009 to FY2010	
				\$	%
<i>Department of Defense</i>					
Department of the Navy	\$7,076	\$7,107	\$6,816	(\$292)	-4.1%
Department of the Army	\$7,461	\$7,753	\$8,465	\$711	9.2%
Department of the Air Force	\$6,626	\$6,696	\$7,471	\$775	11.6%
Department of Defense Agencies	\$10,307	\$11,332	\$11,239	(\$93)	-0.8%
Department of Defense Totals	\$31,470	\$32,889	\$33,991	\$1,102	3.4%
<i>Civilian Agencies</i>					
Department of Agriculture	\$2,000	\$2,352	\$2,379	\$27	1.1%
Department of Commerce	\$1,988	\$2,533	\$2,935	\$402	15.9%
Department of Education	\$606	\$697	\$792	\$95	13.6%
Department of Energy	\$2,086	\$2,115	\$2,143	\$28	1.3%
Department of Health and Human Services	\$5,692	\$5,962	\$6,091	\$129	2.2%
Department of Homeland Security	\$5,252	\$6,215	\$6,316	\$101	1.6%
Department of Housing and Urban Development	\$280	\$313	\$320	\$7	2.1%
Department of the Interior	\$929	\$992	\$996	\$4	0.4%
Department of Justice	\$2,428	\$2,957	\$3,079	\$123	4.2%
Department of Labor	\$504	\$584	\$577	(\$8)	-1.3%
Department of State	\$958	\$1,198	\$1,146	(\$52)	-4.4%
U.S. Agency for International Development(USAID)	\$118	\$182	\$199	\$16	8.9%
Department of Transportation	\$2,830	\$3,007	\$3,021	\$14	0.5%
Department of the Treasury	\$2,896	\$3,057	\$3,121	\$64	2.1%
Department of Veterans Affairs	\$2,526	\$2,832	\$3,397	\$566	20.0%
Corps of Engineers	\$397	\$441	\$442	\$1	0.3%
Environmental Protection Agency	\$481	\$450	\$467	\$17	3.8%
General Services Administration	\$510	\$551	\$622	\$71	12.9%
National Aeronautics and Space Administration	\$1,742	\$1,722	\$1,699	(\$23)	-1.4%
National Archives and Records Administration	\$132	\$139	\$159	\$20	14.3%
National Science Foundation	\$61	\$83	\$87	\$4	4.6%
Nuclear Regulatory Commission	\$135	\$163	\$172	\$9	5.7%
Office of Management and Budget	\$9	\$9	\$9	\$0	3.6%
Office of Personnel Management	\$89	\$58	\$58	\$0	0.3%
Small Business Administration	\$95	\$106	\$125	\$19	17.8%
Smithsonian Institution	\$61	\$64	\$69	\$5	7.2%
Social Security Administration	\$1,111	\$1,321	\$1,418	\$97	7.3%
Civilian Agencies Totals	\$35,919	\$40,104	\$41,838	\$1,734	4.3%
Total IT Investments for the Federal Government	\$67,389	\$72,992	\$75,829	\$2,836	3.9%



DoD Investments

FEA-based View of Federal IT Budget

Core Mission

	Number of Investments	FY2010 Request*	
Services to Citizens	487	\$13,293	39%
Defense and National Security	23	\$11,422	
Health	22	\$1,369	
Transportation	2	\$187	
General Science and Innovation	2	\$89	
Education	9	\$76	
Law Enforcement	1	\$48	
Intelligence Operations	3	\$43	
Workforce Management	1	\$17	
Community and Social Services	262	\$15	
Environmental Management	16	\$11	
International Affairs and Commerce	2	\$8	
Disaster Management	19	\$7	
Economic Development	15	\$1	
Correctional Activities	97	>\$1	
Energy	7	>\$1	
Homeland Security	5	>\$1	
Litigation and Judicial Activities	1	>\$1	

Business Services

Support Delivery of Services	103	\$179	1%
Planning and Budgeting	8	\$99	
Controls and Oversight	60	\$39	
Public Affairs	2	\$31	
Regulatory Development	2	\$9	
General Government [CA]	3	>\$1	
Legislative Relations	28	>\$1	
Management of Government Resources	1,730	\$20,520	60%
Information and Technology Management	238	\$15,637	
Supply Chain Management	82	\$2,652	
Human Resource Management	212	\$1,014	
Financial Management	505	\$834	
Administrative Management	693	\$383	

DoD Total:	2,320	\$33,991	
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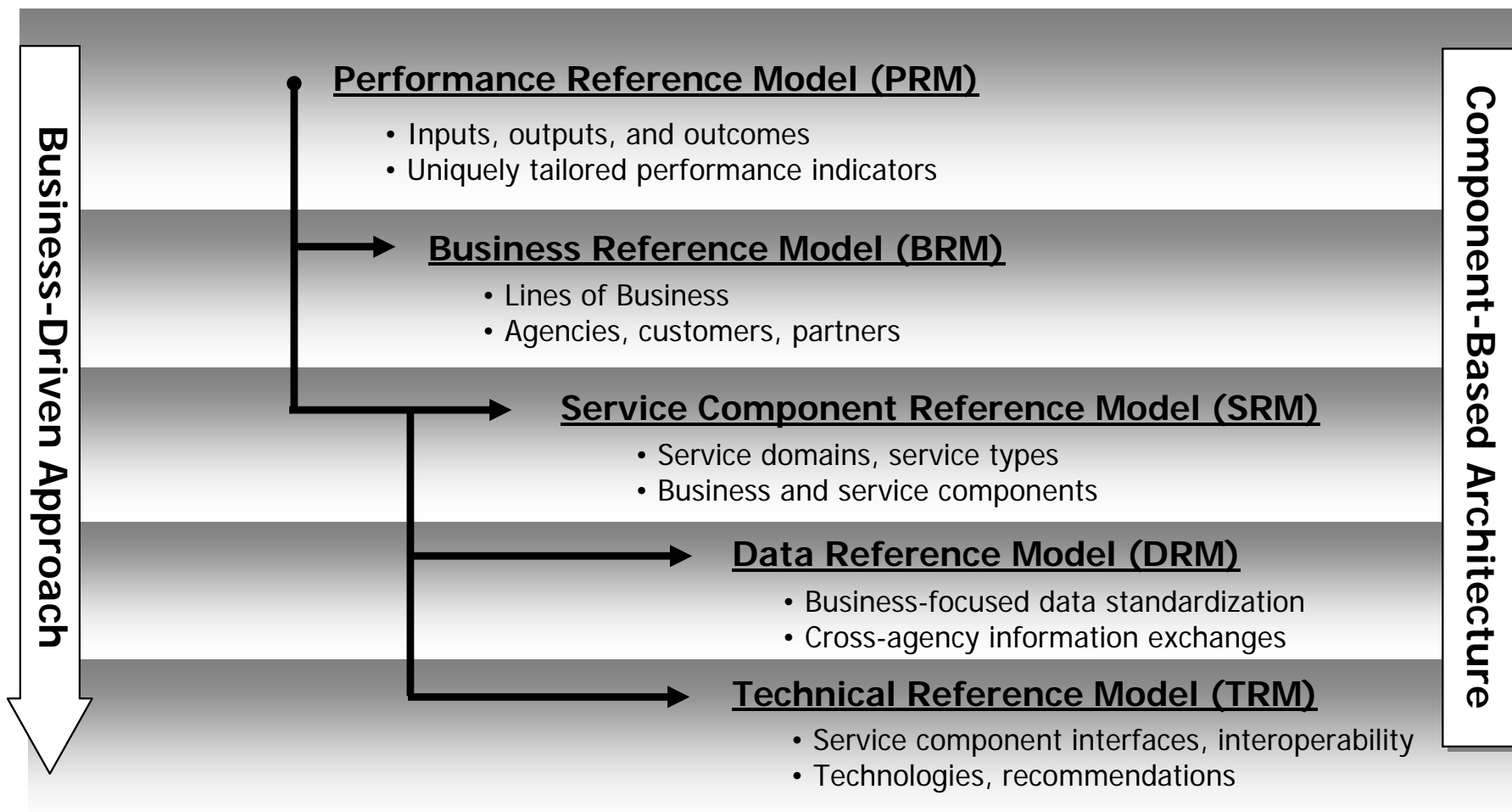
	Number of Investments	FY2010 Request*	
Supporting Services	0	\$0	0%

No DoD investments were identified as Supporting Services (Enterprise Services)

* Dollars shown in millions



FEA Context – Reference Models



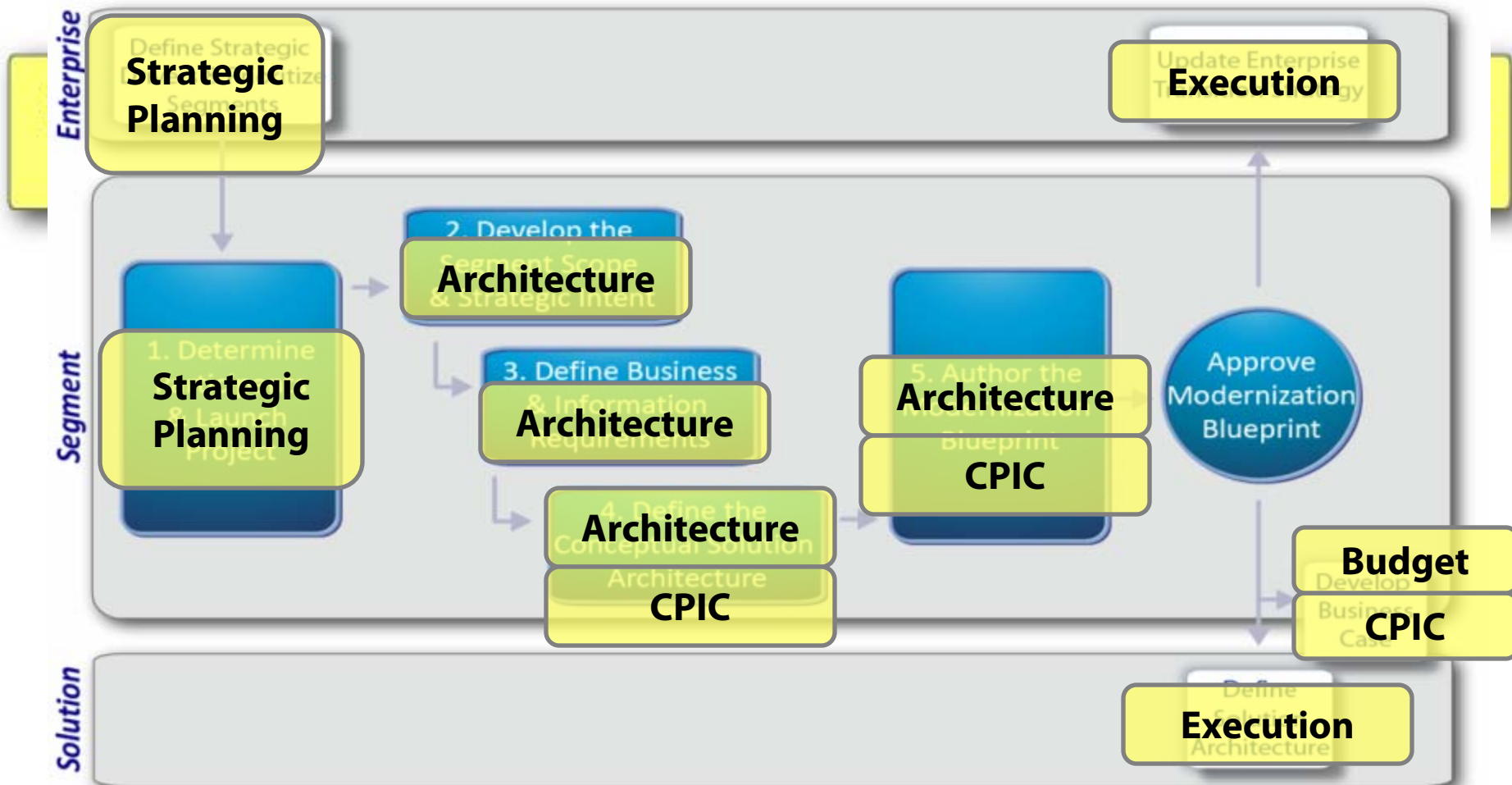


FEA Context – Architecture Levels

Level	Scope	Detail	Impact	Audience
Enterprise Architecture	Agency/ Organization	Low	Strategic Outcomes	All Stakeholders
Segment Architecture	Line of Business	Medium	Business Outcomes	Business Owners
Solution Architecture	Function/ Process	High	Operational Outcomes	Users and Developers



Federal Segment Architecture Methodology





Reporting Schedule and Requirements

	Q2			Q3			Q4			Q1		
	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Exhibit 53/300 Reporting	→			✓	→				✓		✓	
	Prep. of President's Budget		OMB develop initial draft Guidance (Circular A-11)		Agencies Building Business Cases Using EA			Agencies submit budget request to OMB			OMB Initial Passback	
EA Segment Reporting	✓			✓			✓			✓		
	All Segments Identification & Mapping			All Segments Based on Maturity			All Segments Updates/Additions			All Segments Updates/Additions		
Agency EA Self Assessment and EA Submission					✓			✓			✓	
				Completion				Use			Results	
Success Stories and/or Case Studies			✓			✓			✓			✓
	Agencies Submit 1-2, OMB Shares w/ USG											
OMB Review & Assessment of Agency EA (EAAF v.3)						✓			✓	✓		✓
OMB Feedback to Agency on EA Assessment	✓						✓			✓		



February EASR Ver 1.1 Submissions

- Government-wide: 566 discrete segments reported
- Major opportunities include:
 - Collaborative Segment Development Efforts
 - Re-use/Sharing of EA Artifacts to expedite Planned and In Progress Segments
 - Improved Integration of EA & CPIC
- Major improvement areas:
 - Opportunities to improve submission process and tools
 - Standardization in segment nomenclature
 - Targeted data quality improvements



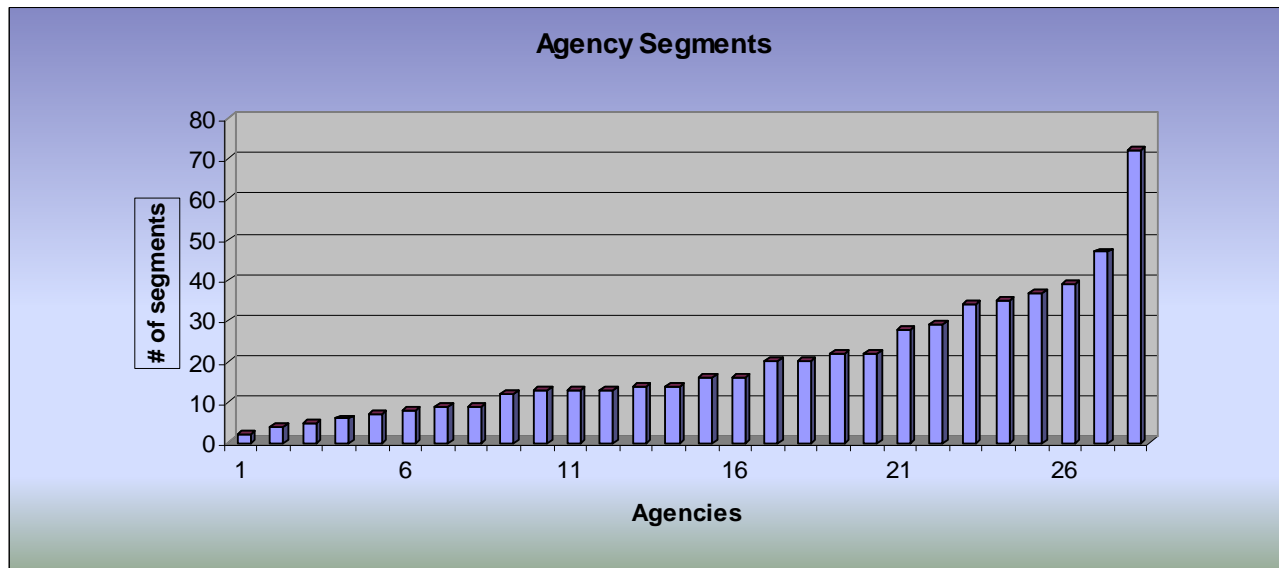
FEA Segment Analysis by Agency

*data based on
2/27/09
submission

Agency	Segment Maturity					Grand Total
	Completed	In-Progress	Planned	Notional	Maturity Not Defined	
DHS		5	1	12	2	20
DNI			8			8
DOC	1	13	6	7	1	28
DOD		4				4
DOE		9		13		22
DOI	9	4		34		47
DOJ	3	2	6	2		13
DOL	4	3		3	29	39
DOT	2	5	3	12		22
ED	4	2	5	2		13
EPA		5	8	1		14
GSA	6	20	3	4	2	35
HHS	3	6	8	49	6	72
HUD	7		1	18	11	37
NARA		1			1	2
NASA				1	4	5
NRC				14		14
NSF	2	1	1	3		7
OMB					13	13
OPM	2	1	9			12
SBA	4	1	2	2		9
Smithsonian	1	2		1	2	6
SSA		10		4	2	16
State/USAID	2	4		23		29
Treasury	2	5	13			20
USACE		6	8	2		16
USDA	1	2	3	25	3	34
VA			1	2	6	9
Grand Total	53	111	86	234	82	566

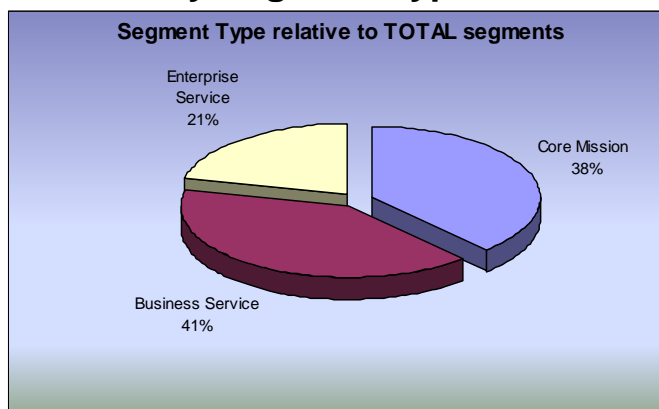


EASR Trends and Observations

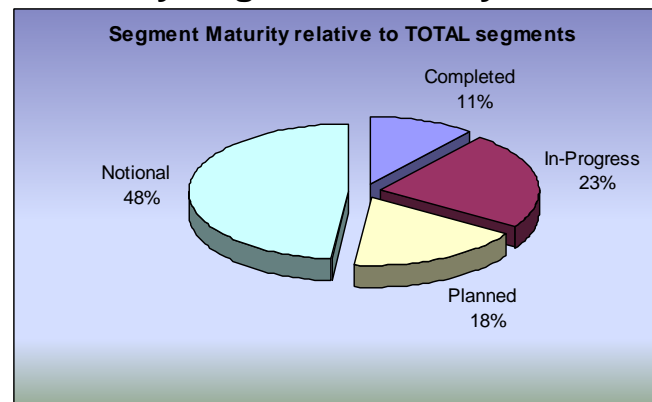


Segment Summary:
EASR Agencies = 28
Discrete Segments = 566
Agency High = 72
Agency Low = 2
Agency Average = 21.2

By Segment Type...



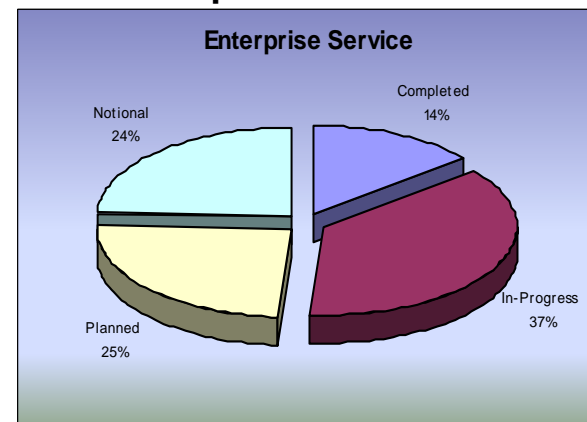
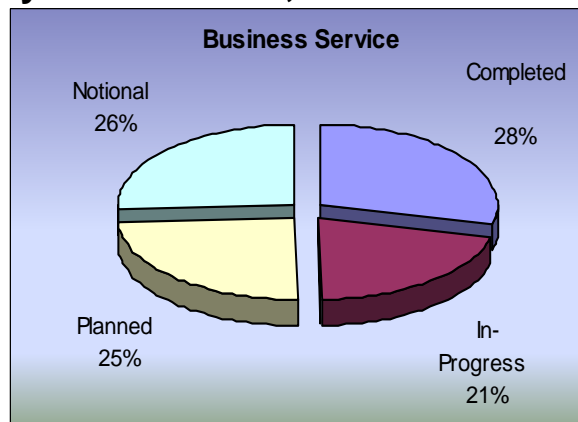
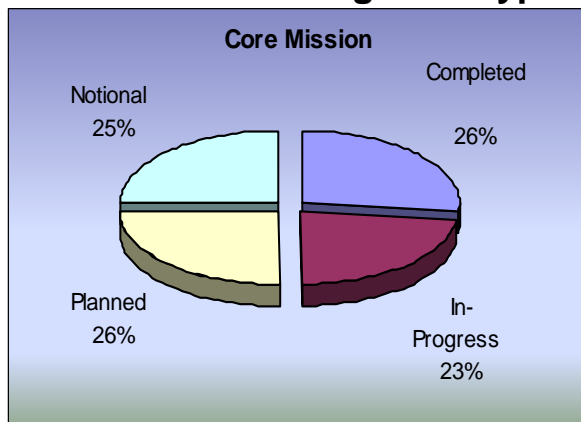
By Segment Maturity...





EASR Trends and Observations

Breakdown of Segment Types by Core Mission, Business Services and Enterprise Service:



Potential Shared Architecture Development Efforts:

FEA PMO CLASSIFICATION	Segment Maturity				Grand Total
	Completed	In-Progress	Planned	Notional	
Financial Management	9	7	8	7	31
Geospatial Services	1	3	2	2	8
Health		1		4	5
Health Information Technology				1	1
Identity Management		2		1	3
Information Sharing (USG or PM-ISE)	2	2	2	5	11
IT Infrastructure	2	14	5	6	27
Records Management	1	3	1	2	7
IT Management		1		1	2
Grand Total	15	33	18	29	95

Major Opportunities for Collaboration

- Agency segments identified by Maturity
- Agency segments identified by LoB

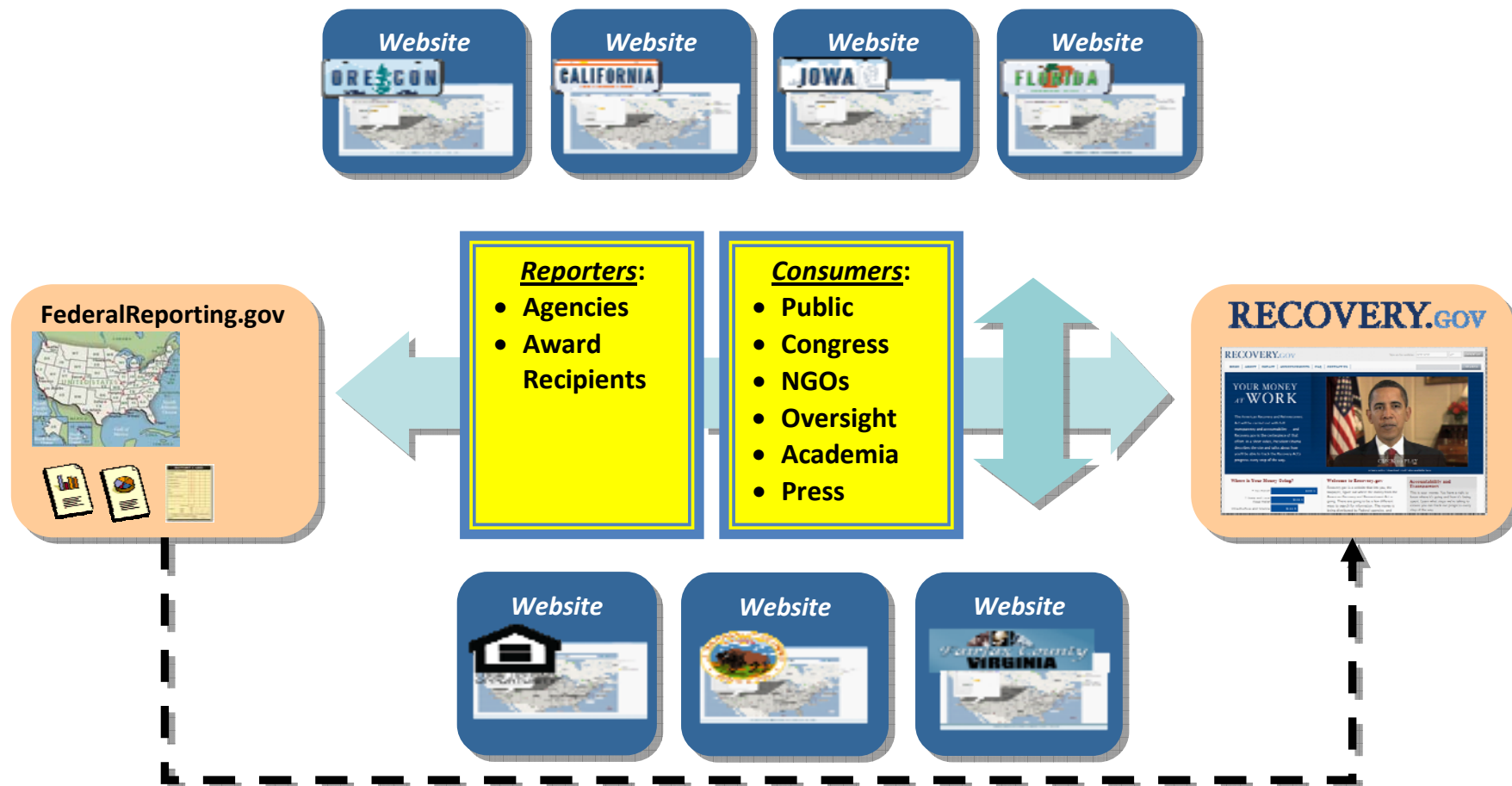


EA Assessment Framework

EAAF v2.2		EAAF v3.0		
	KPI	How		
Completion Use Results	<ul style="list-style-type: none"> • Performance Architecture • Business Architecture • Data Architecture • Service Component Architecture • Technology Architecture • Transition Strategy 	Review of Artifacts	<ul style="list-style-type: none"> • Target Enterprise Architecture and Enterprise Transition Plan • Architectural Prioritization • Scope of Completion • Internet Protocol Version 6 (IPv6) 	Template-based agency segment submissions
	<ul style="list-style-type: none"> • Governance and Program Mgmt • Change Mgmt and Deployment • Segment Architectures / Collaboration and Reuse • CPIC Integration 	Assignment of policies and procedures	<ul style="list-style-type: none"> • Performance Improvement Integration • CPIC Integration • FEA Reference Model and Exhibit 53 Part Mapping • Collaboration and Reuse • EA Governance and Management 	Measured alignment between Performance, EA, and CPIC datasets; EA management artifacts
	<ul style="list-style-type: none"> • Cost Savings / Cost Avoidance • Transition Strategy Performance • Enterprise Architecture Value • Internet Protocol Version 6 (IPv6) 	Evaluation of measures and metrics	<ul style="list-style-type: none"> • Mission Performance • Cost Savings and Cost Avoidance • IT Infrastructure Portfolio Quality • Measuring EA Program Value 	Measured Delivery against planned improvement commitments

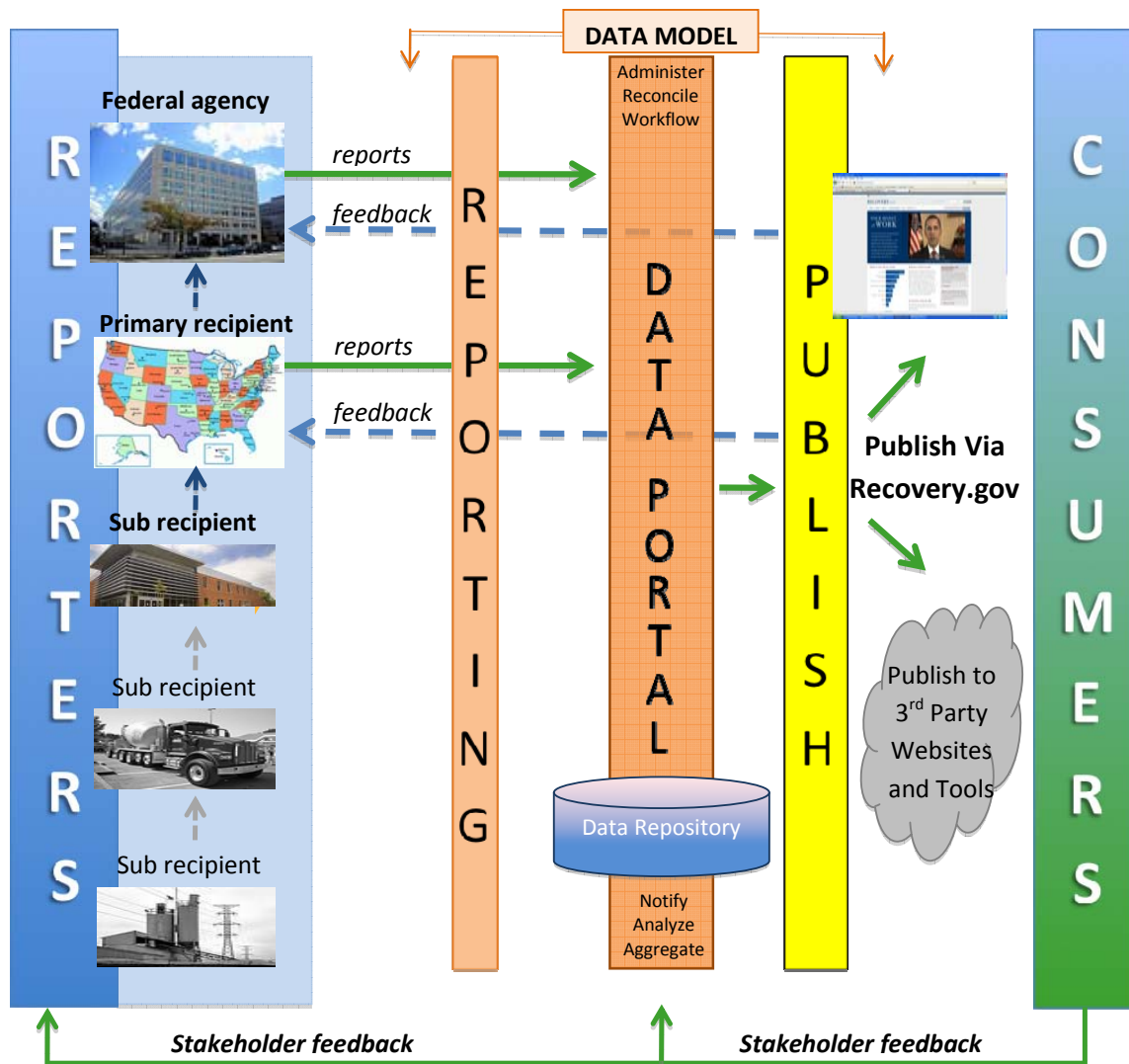


Recovery Act Scope & Stakeholders





Primary Recovery Information Flows



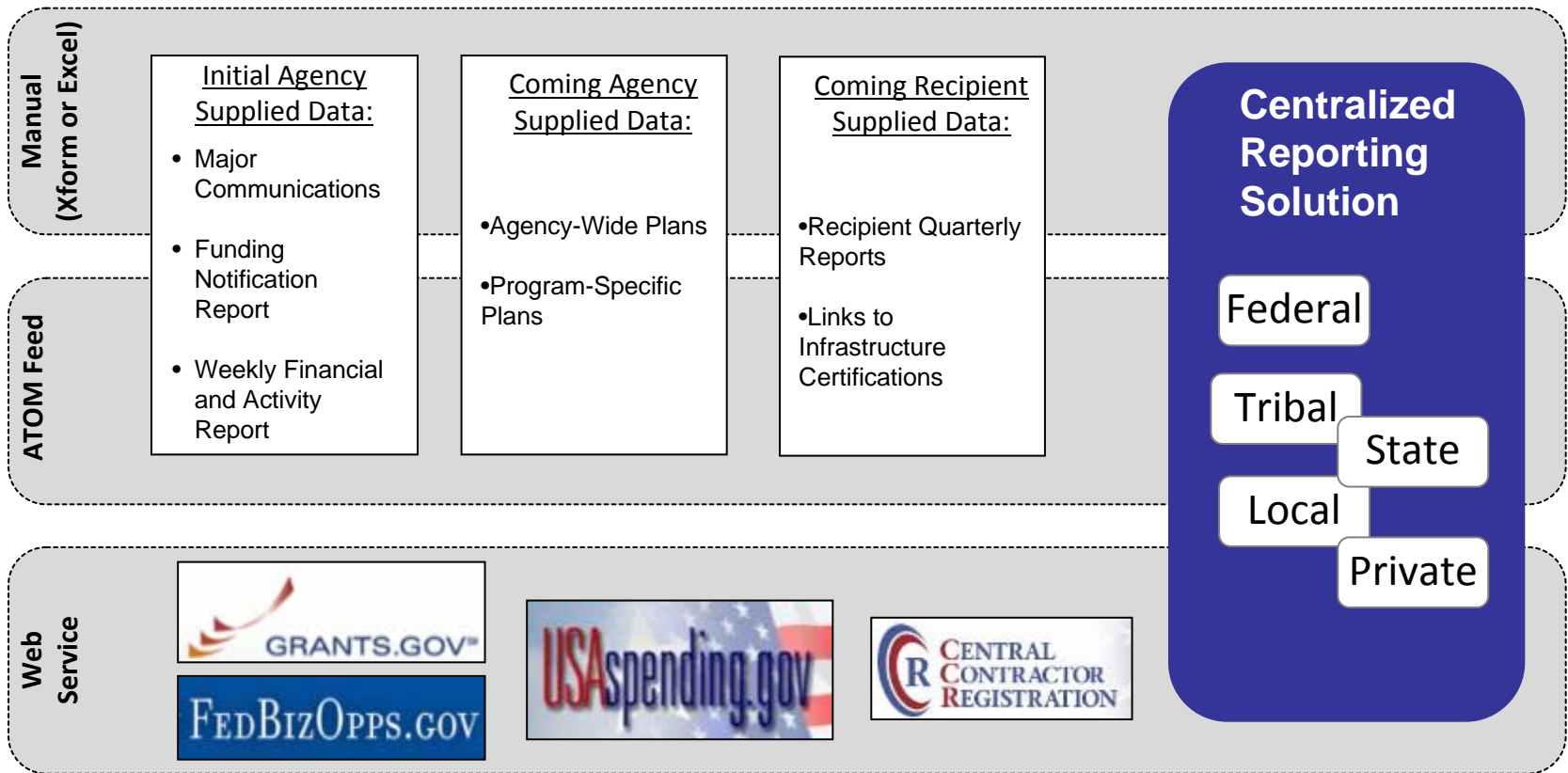


Recovery.gov Solution Dimensions





Phased Implementation of FederalReporting.gov



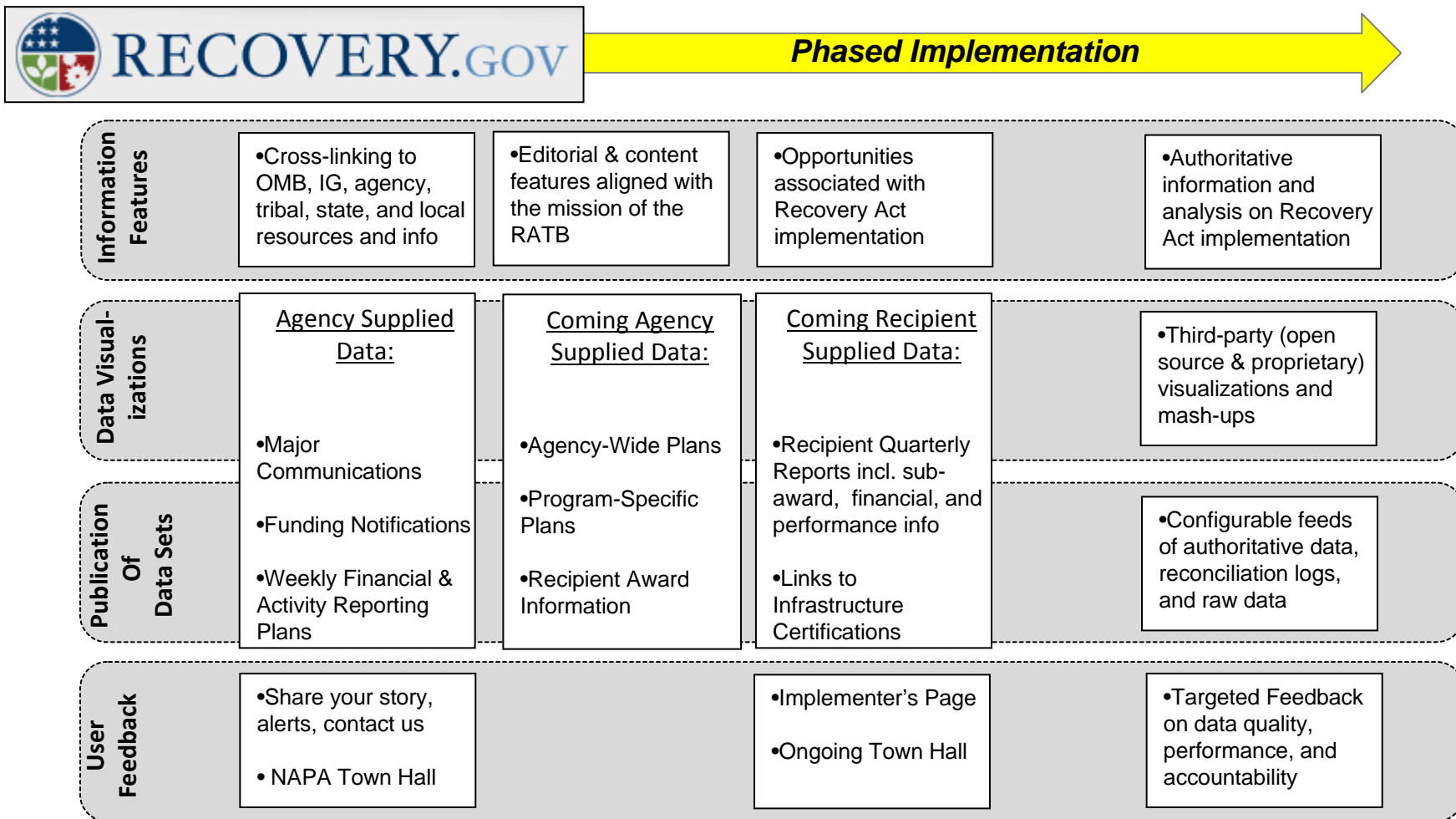
Increasing Recovery.gov Capabilities



- As information is collected it will be aggregated, reconciled, and published
- Additional capabilities will be added to include:
 - Feeds to the public to share authoritative, raw, and reconciliation information
 - Process integration of feedback from the public
 - Enhanced capabilities such as geo-coded data sets
 - Online analytical solutions for the public

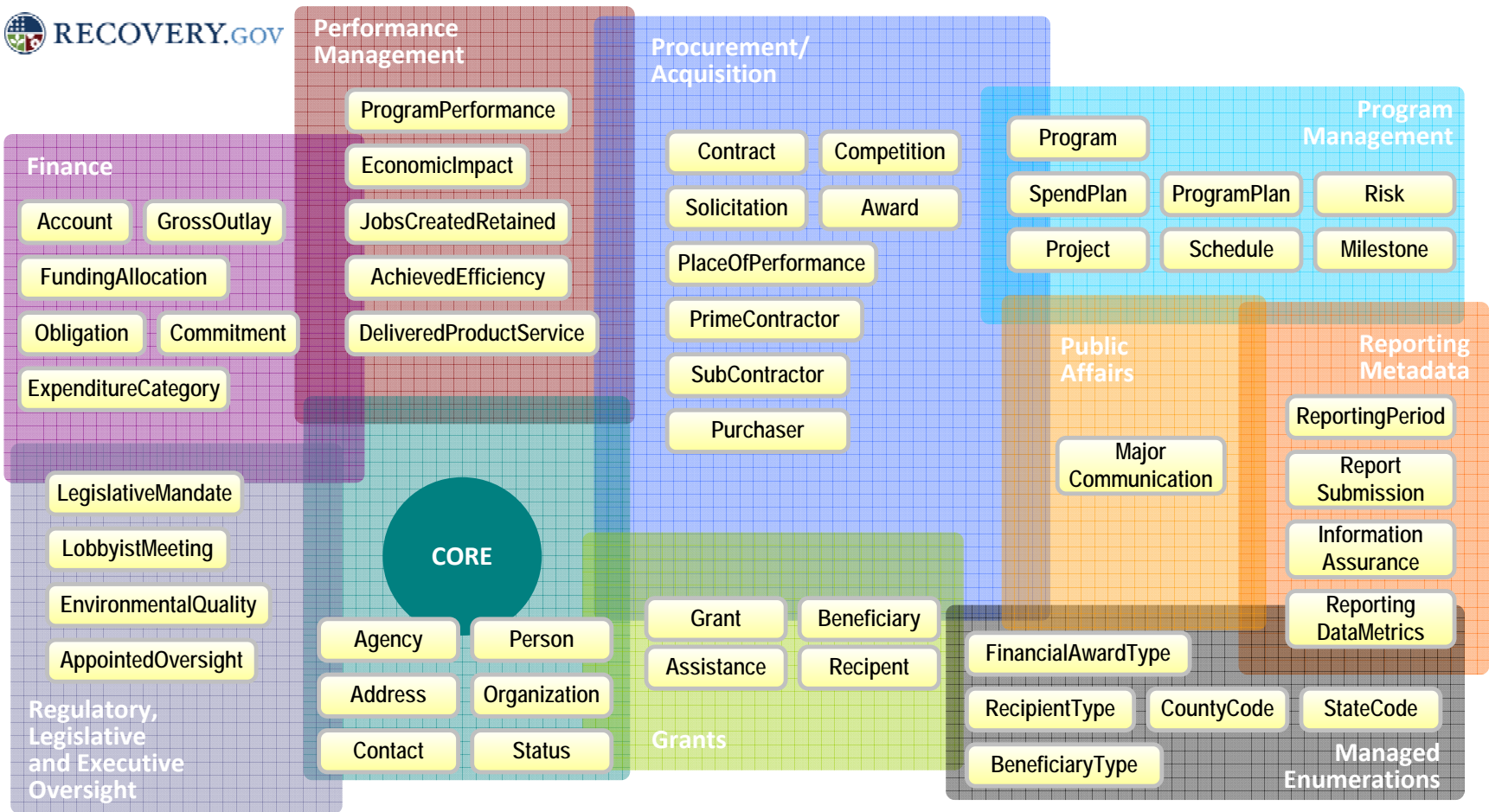


Phased Implementation of Recovery.gov





Recovery Act High Level Data Model





Updates to the FEA Reference Models

- DoD CIO is planning to update the Defense and National Security Business Reference Model Line of Business.
- OMB is anticipating updates to the Business & Services Reference Models on submitted segment architectures.
- DoD consists of ~40% of federal IT portfolio
 - ~65% is not Defense and National Security
- Together, OMB and DoD, within the CIOC AIC Governance Subcommittee, will evaluate and develop recommendations for modifications to the FEA BRM and SRM.
- The effort will assess the need for internal extensions to the FEA BRM, SRM realignments, and the establishment of reference architectures.



DoD use of FEA Reference Models

- The Purpose of the Reference Models is grouping like-with-like to:
 - Increase performance alignment
 - Promote reuse of business and technology services
 - Enable information sharing
- With greater granularity and DOD input, greater utility to DOD commands, services, and agencies.
- Opportunities to drive greater planned reuse and agility.
- OMB will participate in the DoD BRM kickoff event in June to bring this message to the DoD working group.



Enterprise Reference Architectures

- The DoD CIO is conducting a study of Reference Architectures to determine what artifacts are needed to support the DoD CIO's mandate for compliance with enterprise solutions/services.
- The Enterprise Architecture & Standards Directorate is defining the requirements and CONOPs for an Enterprise Reference Architecture Cell
 - It will assist in the development of, and implementation guidance for, Enterprise Reference Architectures.
- OMB is championing the concept of shared target “to be”:
 - Mission Communities of Interest
 - Back office business services including IT Infrastructure
 - Cross-cutting enterprise services
- OMB and DoD will collaborate through the CIOC AIC Governance Subcommittee.



DOD SAR Info Sharing Segment Architecture

- The EA&S Directorate, in support of DoD's Federal Information Sharing Executive, is initiating the development of a DoD SAR Information Sharing Segment Architecture
 - This is to be completed in the July timeframe.
- This new Segment, in addition to the on-going work with the Department of the Navy on the National Maritime Domain Awareness Architecture, is aimed at improving cross-Agency information sharing.
- OMB, with PM-ISE, is exploring opportunities for greater collaboration and commonality based on shared mission Communities of Interest.



NIEM and UCORE

- Goal is harmonized framework for cross USG, reusable information exchanges
 - Cross boundary information sharing
 - Competing frameworks are an impediment to sharing
- Universal Core (UCORE) 2.0
 - Harmonized between DoD, DNI, DoJ, DHS, State and Local Public Safety & Homeland Security.
- NIEM uses UCORE 2.0
 - Extends to functional exchange standards
 - Used within DoD
- Opportunity to explore further harmonization and across the USG, and potentially nationally



Questions and Answers

- **Federation through Segmentation**
- **Col-based Standardized, Secure Information Exchanges**
 - **Problems and Solutions are Cross-Boundary**
 - **Scope is Federal, National, International**
- **Get involved**
 - **DOD OCIO**
 - **fea@omb.eop.gov, subject DoD Collaboration**
 - **fea@omb.eop.gov, Subject Detail Opportunities**