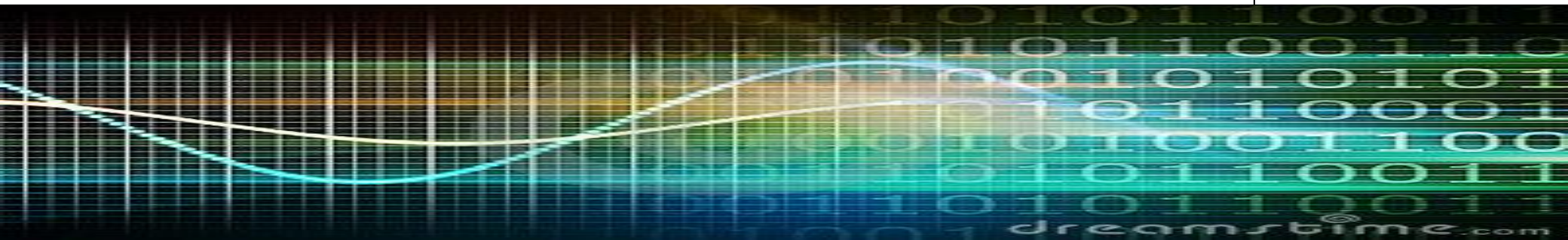


Cross Cutting IT Modernization Center of Excellence:

Measuring the Risks, Mission Value and Lifecycle Cost of IT Modernization Investments

Board of Advisors:

VADM Kevin Green, former D-CNO
Dr. Bill Curtis, Exec Director, IT-CISQ
Mr. Tony Scott, former; Federal CIO, MS CIO, Disney CIO, GM CTO
Honorable Duane Andrews, former DASD C4I (CIO)
Dr. Marv Langston, former Navy/DOD CIO
Dr. Dale Meyerrose, MGEN, former DNI CIO
John Weiler, IT-AAC Managing Director
Josh Harbert, Exec Director, TBM Council
Todd Tucker, VP, Standards, Research & Education for the TBM





Assuring IT Enabled Outcomes

*exposing innovations & proven practices and standards
emanating out of the \$4T Global IT market*



❖ IT-AAC 501c6

- ✓ Public/Private Partnership of Standards Bodies, Academia, Think Tanks and Non-Defense COIs.
- ✓ Conduit to \$4 Trillion Global IT Market best practices/innovations
- ✓ Greybeard Council
- ✓ Focus on sharing Commercial IT standards of practices and lessons learned
- ✓ Resource for Mentoring and Training; TBM, Agile Acquisition, Risk Management, Service Level Management, PtF Mgt, CPIC

❖ Interop. ClearingHouse (ICH)

- ✓ Govt Chartered research institute (SWOB) GSA Sched 70
- ✓ Clearinghouse of; IT Standards, Design Patterns, COTS Innovations, Proven Practices
- ✓ Contracting arm for IT-AAC and its SDO Partners
- ✓ Focus on measures and metrics for **interoperability, value, security, service levels, commerciality & risk.**
- ✓ Just-in-Time SMEs to mentor, train and equip IT/Cyber workforce
- ✓ Conflict free, no rice bowls



IT-AAC Public/Private Partnership

reaching over 108k innovators



IT - AAC Partners	Agile Methods	IT/Cloud Standards	Innovation Access	IT Risk Mgt	Industry Best Practices	Pilots & Contracts	IT Policy & Governance	Number of Companies (SMEs)
Aerospace Industry Association (AIA)			✓		✓		✓	325+
Open Network Foundation (ONF)					✓		✓	150+
Cloud Security Alliance (CSA)		✓	✓		✓	✓		48,000
Cloud Standards Customer Council (CSCC)	✓	✓			✓		✓	750+
Interoperability Clearinghouse (ICH)	✓		✓	✓	✓			360 SMEs
Intern'l Information Systems Security Certification Consortium (ISC2)		✓			✓			80,000+
Information Systems and Security Group (ISSA)		✓			✓		✓	10,000+
Object Management Group Industrial Internet Consortia	✓	✓	✓	✓	✓		✓	800+ 250+
AFCEA Ft Belvoir Chapter			✓	✓	✓	✓	✓	1,600+
IDC/IDG					✓		✓	1,100 SMEs
Consortium for IT SW Quality (CISQ)			✓	✓	✓	✓		600+
Telecommunication Industry Association (TIA)		✓	✓		✓		✓	290+
Financial Services Roundtable FS Round + FSTC)	✓		✓	✓	✓	✓	✓	100+

The State of Federal IT

Leading to FITARA, IT MGT Act and EO13800

1. **INDUSTRIAL AGE IT ACQUISITION & MANAGEMENT PROCESSES:** Industrial age frameworks (DODAF, JCIDS, CPIC) obscures value of commercial IT standards and waste billions annual in non-value paperwork. Current approach results in 75% failure rates and significant cost overruns in spite of legislations directives to change (FITARA, CCA, IT MGT Act, EO13800, PMA).
2. **ILL-EQUIPED FEDERAL IT WORKFORCE:** Government PMs and Acquisition Core, CxOs lack expertise, experience and knowledge to leverage of business value of commercial IT. Focus on compliance not outcomes
3. **DECISION AVOIDANCE vs RISK MGT :** Agencies lack mature Risk Based Decision Analytics Frameworks needed to model risks and guide modernization of legacy stove pipes. Commercial standards of practice are key to change (Agile Aqiu, TBM, RMF, SCRMM)
4. **BARRIERS TO IT INNOVATIONS and BEST PRACTICES:** Decision makers lack access to commercial standards and innovations that drive a \$4 Trillion dollar global IT Market (of which the DIB represents less than ½ of 1%).

FITARA Agile Acquisition Scorecard

- ✓ Measurement and discussion in governance committees goes a long way to setting behavior
- ✓ You can only manage what you measure. Codify Gate controls that measure risk/value



Transform Acquisition and CPIC Policy

- ✓ Transform IT Acquisition that enable continuous measurements of risk/value
- ✓ Require vendors to provide CISQ scores/certificate for each release
- ✓ Streamline processes that Mission Driven, Evidenced Based, and Agile



Service Level Management

- ✓ SLAs that treat software enhancements and maintenance as a service; track levels, penalties, credits
- ✓ Align SLAs with Mission Outcomes and Incentives

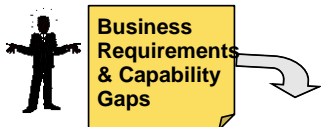


Risk Mgt Acceptance criteria

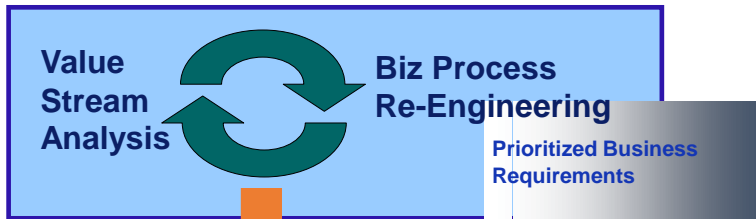
- ✓ Measure and demand minimal set of acceptance criteria for any new development or modernized systems
- ✓ Modernize IT Infrastructure Services based on commercial design patterns (14 SOA Services)

Agile Acquisition, CISQ and TBM

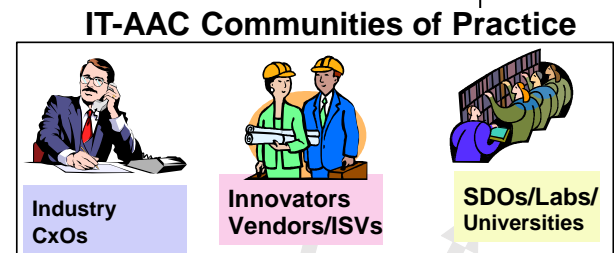
Process Flows for Measuring Investment Risk, Value and Cost



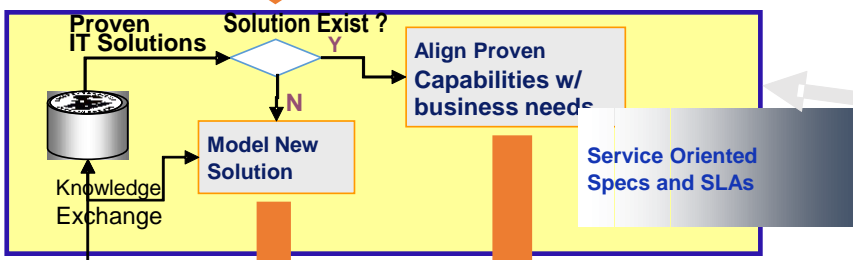
- Phase 1**
- Mission Needs: Value Stream Analysis:**
- Problem ID
 - Mission Rqts
 - Prioritization
 - Constraints
- Phase 2**
- Performance Management Assessment**
- Feasibility
 - Service Attributes
 - SLAs
 - Shared Services
- Phase 3**
- Solution Architecture Modeling:**
- Selection
 - Certification
 - Interop Spec
 - Openness



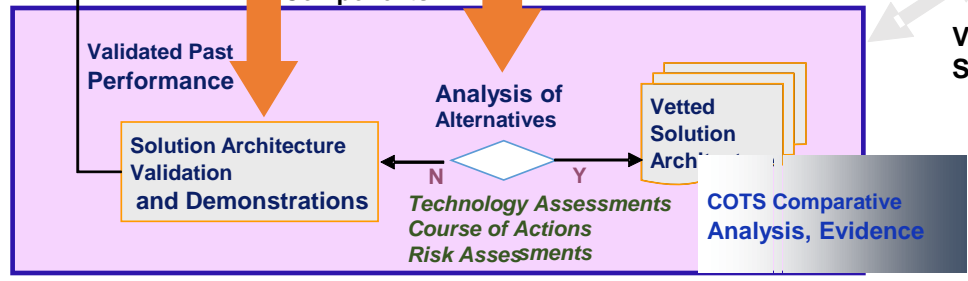
Measurable Outcomes
Business Metrics



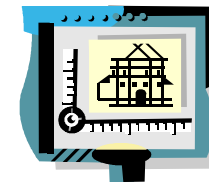
Evidence Lessons Learned
Innovations
Research, Testing Results



Normalized SVC Components
Solution Set Evidenced -Based Research



Validated Acquisition Strategy, SLAs & Source Selection Criteria



AAM Tools

Problem Statement	Capability Analysis	Solution Determination	Capability Prioritization	Feasibility Assessment	Economic Analysis	Roadmap	Risk Dashboard Assessment
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AAM, CISQ & TBM Frameworks

A Data Driven Modeling Approach

Problem Statement



Prioritized Capabilities

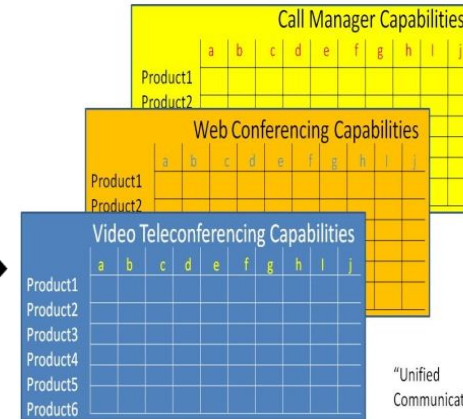
Solution Determination Alternatives

Mission Capability	No	High level Capability
2	1	Reduce time to deploy infrastructure
1	2	Reduce infrastructure cost
1	3	Improve Reliability, Availability Survivability (RAS)
4	4	Work within current Security Management Posture
		Provide support for AF Use Cases
1	6	Support SBC storage strategy
2	7	Support Infrastructure Requirements
1	8	Improved Manageability
1	9	Provide the same user experience (irrespective of client; rich or thin client).



support for client type - Remote

5f	Provide support for client type - Unmanaged
125 6	Support SBC storage strategy
6a	Provide server-side storage of System data and/or system images
6b	Provide server-side storage of enterprise data
6c	Provide server-side storage of user data and/or system images
6d	Provide server-side storage of user application
6e	Provide server-side storage of enterprise data application
125 7	Support Infrastructure Requirements
7a	Maintain current bandwidth/network loads (min 10 GB to max 100GB user profiles, 100 MB to the desktop)
7b	Provide consistent capability, whether rich or thin, with differing capabilities based on Active Directory rights/groups
7d	Provide support for the Common Access Card (CAC)/DOD Public Key Infrastructure (PKI) logon
150 8	Improved Manageability
8a	Provide for remote manageability of desktop
8b	Provide support for all business and mission applications, including bandwidth sensitive applications
8c	Provide for a client computing environment solution that scales over the AF enterprise
8d	Allow use of a diverse mix of hardware end devices in a heterogeneous environment
8e	Increase IT service availability to the mobile/pervasive user
150 9	Provide the same user experience (irrespective of client; rich or thin client).



"Unified Communications"



Feasibility Assessments & Management Risks

Economic Analysis/TCO/ROI Tradeoff

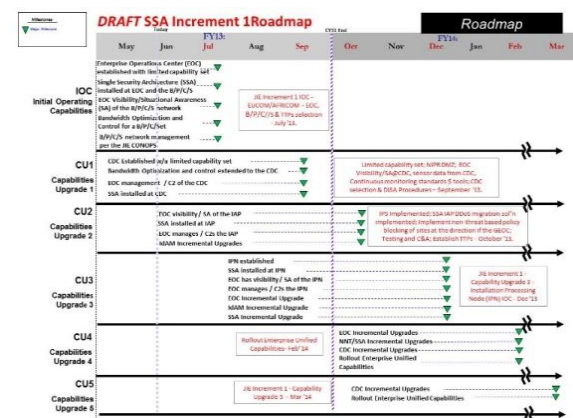
Road Map

Value Factors	15%	15%	5%	5%	5%	13%	13%	15%	15%	Score
Reduce time to deploy infrastructure	1.67	3.00	3.40	1.50	0.73	1.40	1.00	1.56	1.00	1.67
Reduce infrastructure cost	2.33	3.15	3.40	3.00	1.53	1.40	1.33	2.11	2.00	2.23
Improve Reliability, Availability Survivability (RAS)	1.67	2.23	1.30	2.50	2.07	1.40	2.00	2.78	4.00	2.67
Work within current Security Management Posture	1.00	1.92	1.30	1.50	2.80	1.40	2.33	4.22	5.00	2.67
Provide support for AF Use Cases	1.67	2.23	1.30	2.50	2.07	1.40	2.00	2.78	4.00	2.67
Support SBC storage strategy	1.00	1.92	1.30	1.50	2.80	1.00	2.33	4.22	5.00	3.03
Support Infrastructure Requirements										
Improved Manageability										
Provide the same user experience (irrespective of client; rich or thin client).										

Overall Score on each Product

- Blue = Essential 1-1.50
- Green = Desirable 2-2.50
- Yellow = Less Desirable 3-3.50
- Red = Unacceptable 4-5.00

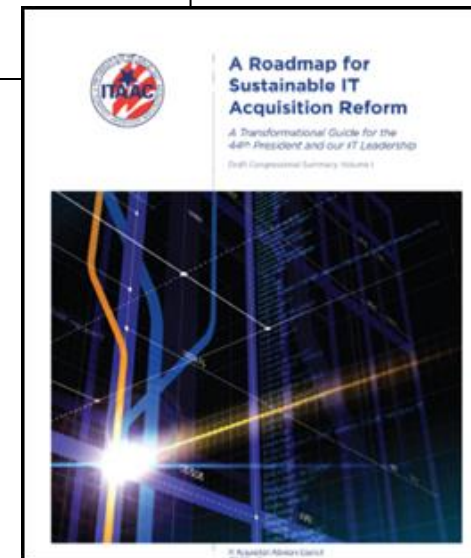
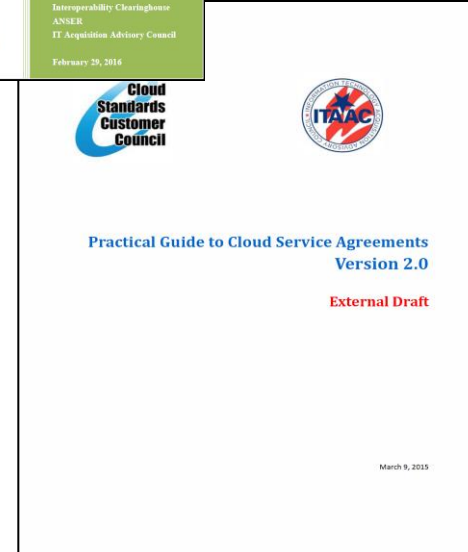
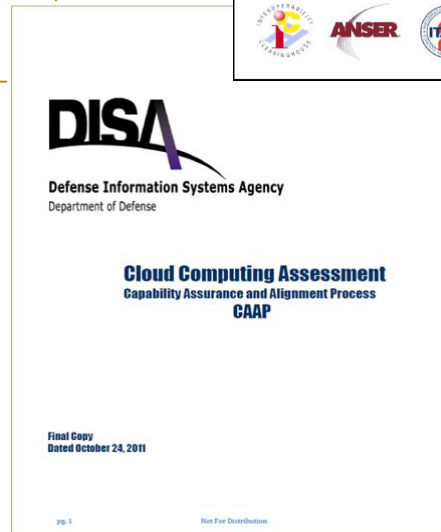
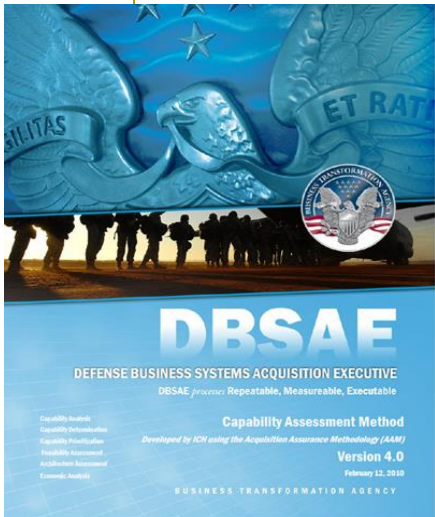
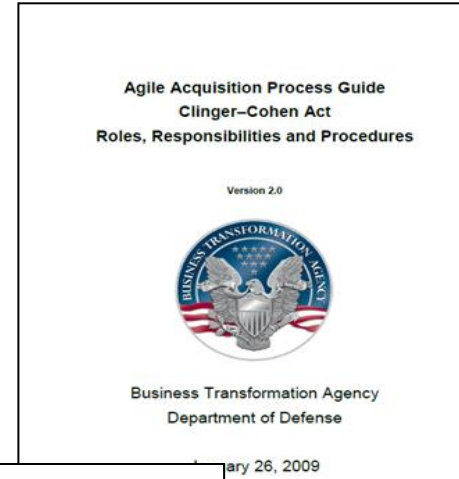
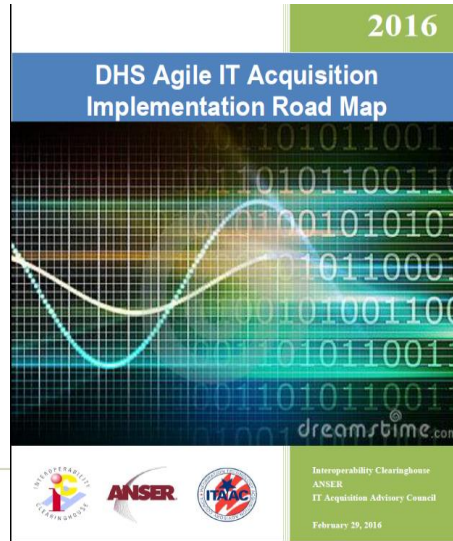
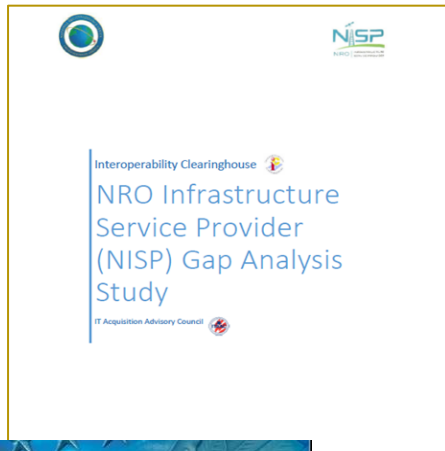
Units	250,000				
	Unmanaged PC	Managed PC	Thin Client		
Direct Cost - Unit	\$ 500	\$ 500	\$ 300		
Direct cost - 250K Units	\$25,000,000	\$25,000,000	\$18,750,000		
Indirect cost - 250K	\$25,000,000	\$9,380,000	\$2,500,000		
Migration Costs	-	-	\$2,500,000		
TCO	\$50,000,000	\$29,250,000	\$19,750,000		
per SEC	\$ 2,500	\$ 1,613	\$ 885		
	Year 1 (25%)	Year 2 (25%)	Year 3 (25%)	Year 4 (25%)	TCO
Direct Cost	\$24,500,000	\$24,500,000	\$24,500,000	\$24,500,000	\$97,500,000
Indirect Cost	\$14,000,000	\$2,940,000	\$1,870,000	\$2,500,000	\$19,300,000
Migration Costs	\$2,500,000	-	-	-	\$2,500,000
Annual Costs	\$5,000,000	\$3,640,000	\$2,960,000	\$1,130,000	\$14,730,000
Unmanaged PC					
Unmgt PC Annual	\$24,500,000	\$24,500,000	\$24,500,000	\$24,500,000	\$97,500,000
SBC Saving	\$7,830,000	\$6,965,000	\$6,965,000	\$6,965,000	\$25,725,000
Managed PC					
Managed PC Annual	\$4,820,000	\$4,820,000	\$4,820,000	\$4,820,000	\$19,280,000
SBC Saving	\$6,640,000	\$2,965,000	\$4,470,000	\$5,000,000	\$19,075,000
Break even Year to 2nd year ROI	45%				





We Wrote the IT Reform Play Book

repeatable, measurable, sustainable





Past Performance = Assured Outcomes

Where AAM and IT-AAC have proven: better, faster, cheaper



<p>Navy: Assessment of AFLOAT Program – CANES SOA & Security Strategy Contact Value: \$350k Eliminated hi-risk Requirements by 23%, \$100Ms in potential savings</p>	<p>USAF: Streamlined COTS Acquisition Process. Applied to Server Virtualization. Contact Value: \$500k Established optimal arch with ROI of 450% & \$458 million savings</p>	<p>AFISRA: Applied AAM to conduct ISR Portfolio Risk Assessment (PRA) Contact Value: \$500K Guiding reorganization and restructure of ISR Portfolio</p>
<p>DISA CAE: DISN GSM-O Recompete Restructured performance metrics, acquisition strategy and SLAs to enable 30% savings on existing DISN Mgt Greatly Exceeded Forecasted Saving in both analysis and acquisition</p>	<p>GSA CFO: Financial Mgt System consolidation using AAM. Contact Value: \$500k Moved GSA FMS from OMB “red” to “green”. Eliminated duplicative investments that saved \$200M</p>	<p>BTA DBSAE: Transformed DOD’s Requirements and Agile process, with 2 successful pilots Contact Value: \$800k \$300 million in potential savings with minimal investment</p>
<p>Discovery Channel: Apply AAM to complete AoA and BCA for Enterprise Web Services/Tactical Cloud Contact Value: \$330k Provided actionable roadmap for world wide multi-media web services</p>	<p>GPO: Developed Acquisition Strategy for Future Digital System FDSys Contact Value: \$150k Led to successful acquisition and implementation on time, on budget and 80% cheaper than NARA RMS</p>	<p>DHS CIO: Agile Acquisition Roadmap Applying AAM to comply with NDAA/FITARA IT Reform Directives Partnered with DHS FFRDC to shift DHS away from failed weapon systems approach to IT acquisition</p>

“we believe that it is necessary to develop a comprehensive set of metrics to give transparency to program execution, avoid subjective judgment, and avoid the wasting of time in both executing commands and in oversight offices. This is consistent with the fundamental recommendations of the Packard Commission and Secretary Robert Gates’s initiative to eliminate inefficiency and waste.” PARCA-RAND Root Cause Analysis of Nunn-McCurdy Breaches



IT Transformation Roadmap

how IT-AAC can drive Sustainable IT Reforms



Align responsibilities and authorities that establish clear lines of authorities and accountability (CIO, CFO, CAE)

ORGANIZATIONAL REALIGNMENT



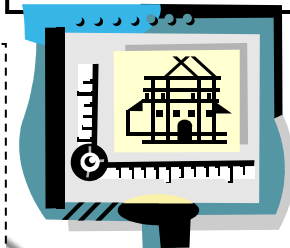
WORKFORCE TRAINING EXPERTISE/KNOWLEDGE



Train, mentor and equip acquisition ecosystem on IT standards of practices (TBM, Agile, RMF, SCRUM). Provide Just-In-Time SMEs to fill IT Expertise and Knowledge gap. Leverage public/private partnerships that expose real world innovations, best practices, lessons learned.

LEADERSHIP

IT MGT PROCESS & POLICY UPDATE



Establish Risk Based Decision Analytics and Performance Metrics that enable sound, fact based investment decisions as directed by CCA, FITARA, IT MGT Act, EO13800, and PMA.

CHANGE MGT INCENTIVES/CULTURE



Establish Value Streams, reward risk takers, encourage small failures, drive 80% COTS solutions that deliver mission outcomes. Create Agile TBM pilots that demonstrate new approach to IT Modernization