Deloitte.

Information Assurance (IA) – Organize for Success

April 2009

Agenda

Overview of IA Policy

Roles & Responsibilities

Implication of FISMA

Risk Management Framework

Recommendation

1

DoD Policy for IA

- Security Integrated into Life Cycle Development
- Organize and Manage Systems in Categories
- Incorporated into Investment Portfolios
- Monitor, Report, & Evaluate as an Element of Mission Readiness
- Assign Systems a Mission Assurance Category
- Systems will be Certified & Accredited
- Detect, Isolate, & React to Intrusions, Disruption of Services, or other Incidents
- Train & Certify All Personnel
- Appoint a DAA

Organizational Responsibilities for IA

- DARPA to Coordinate all DoD IA Research and Technology Initiatives with NSA (in coordinate with DDR&E)
- Develop & implement an IA program
- Collect & Report IA Management, Financial, and Readiness Data to Meet DoD Internal or External Reporting Requirements
- Formally Establish a DAA
- Identify & Include IA Requirements in the Design, Acquisition, Installation, Operation, Upgrade or Replacement
- Ensure Awareness, Training, Education, & Professionalization
- Comply with Established Accreditation & Connection Approval Processes

Roles & Responsibilities

- Designated Certification & Accreditation
- Authorizing Official
- Chief Information Officer
- Senior Information Security Officer (CISO)
- Information System Owner
- Information Owner
- Information System Security Officer (ISSO)
- Privileged Users with IA Responsibilities
- Authorized Users

Other Responsibilities

- Lead for Program, Plan, & Budget
- Conducting Risk Management
- Formulizing Decisions and Authority for Risk Acceptance
- Making Security Decisions Based on Mission Assurance and Resiliency
- Implementing a Governance Structure
- System and Information Owners
- Business and Functional Owners
- Complying and Reporting in Accordance with FISMA

Basic Requirements of FISMA

Establish Roles & Responsibilities

- Agency Head
- CIO
- Agency Security Officer

Define Security Program

- 1. Risk assessments
- 2. C&A assessments
- 3. System services & acquisition
- 4. Security plans
- 5. Configuration Mgt.
- 6. Systems & Communications Protection
- 7. Personnel Security
- 8. Awareness Training
- 9. Physical & Environmental Protection
- 10. Media Protections
- 11. Contingency Planning
- 12. Maintenance
- 13. System & Information Integrity
- 14. Incident Response
- 15. Identification & Authentication
- 16. Access Control
- 17. Accountability & Audit

Perform Annual Security Reviews

- Determine sufficiency of security program
- Independent Evaluation (e.g., IG)
- Safeguard evaluation data

Provide Annual Reporting

- Reports from CIO & IG
- Report material weaknesses
- Provide performance plans

Compliance

An Effective Information Security Program will:

- Conduct periodic assessments of risk from unauthorized access, use, disclosure, disruption, modification, or destruction of information and information systems
- Contain policies and procedures that are based on risk assessments, cost-effectively reduce information security risks to an acceptable level
- <u>Subordinate plans</u> for providing adequate information security for networks, facilities, information systems, or groups of information systems, as appropriate
- <u>Perform security awareness training</u> to inform personnel (including contractors) of information security risks associated with their activities and their responsibilities in complying with organizational policies
- <u>Conduct periodic testing and evaluation</u> of the effectiveness of information security policies, procedures, practices, and security controls to be performed with a frequency depending on risk, but no less than annually
- Establish a process for planning, implementing, evaluating, and documenting remedial actions to address any deficiencies in the information security policies, procedures, and practices of the organization
- <u>Implement procedures</u> for detecting, reporting, and responding to security incidents
- <u>Provide plans and procedures</u> to ensure continuity of operations for information systems that support the operations and assets of the organization

Risk Management Framework*

SP 800-37 / SP 800-53A



MONITOR

Security Controls

Continuously track changes to the information system that may affect security controls and reassess control effectiveness.

SP 800-37



AUTHORIZE Information System

Determine risk to organizational operations and assets, individuals, other organizations, and the Nation; if acceptable, authorize operation.



Starting Point

FIPS 199 / SP 800-60

CATEGORIZE Information System

Define criticality/sensitivity of information system according to potential worst-case, adverse impact to mission/business.

Security Life Cycle

SP 800-39

SP 800-53A

ASSESS

Security Controls

Determine security control effectiveness (i.e., controls implemented correctly, operating as intended, meeting security requirements for information system).



FIPS 200 / SP 800-53

SELECT Security Controls



Select baseline security controls; apply tailoring guidance and supplement controls as needed based on risk assessment.

SP 800-70

IMPLEMENT Security Controls



Implement security controls within enterprise architecture using sound systems engineering practices; apply security configuration settings.



Organize to Manage

Agency Executive Leadership

- Commitment
- Assigning Responsibility
- Budget

· CIO

- Key Executive Sponsor for IA
- Program Oversight and Assessment
- Advisor to Agency Executive Team on IA

CISO

- Designated by CIO and Key Leadership
- Works with Stakeholders on Cross-Cutting IA issues
- Single Point of Accountability for IA
- Coordinates the Risk Management Program
- Establishes and Maintains Intuitional IA Framework
- Tracks and Develops Compliance

Options for Governance Structure

Centralized

- CIO/CISO has budget control
- Manages all Security
 Practitioners in the orgs
- Implement & monitor throughout organization

Decentralized

- CIO/CISO are policy & oversight
- Budget control for program but not operations
- Security Practitioners throughout orgs implement & monitor

Governance Challenges

- De-Conflicting Priorities
- Balancing Requirements From Multiple Bodies
- Determining Policy Who, How Stringent
- Maintaining Currency
- Funding Decisions
- Ownership of Issues
- Incident Management & Response
- Responsibilities for FISMA & Other Reports

Recommendation

- Initiative an IA Organization Review
 - Reference Policy and Mandates
 - Appoint a Lead
- State Goals of the Initiative
 - Make short term
 - No boundaries
- Focus On Key Drivers
 - Governance
 - Mission Support
 - Integrate element of mission
- Identify Risk to Business
 - Identify Gaps
- Define Program of Record
 - Plan of Action & Milestone (POA&M)

Deloitte.

About Deloitte

Deloitte refers to one or more of Deloitte Touche Tohmatsu, a Swiss Verein, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu and its member firms. Please see www.deloitte.com/us/about for a detailed description of the legal structure of Deloitte LLP and its subsidiaries.

Copyright © 2009 Deloitte Development LLC. All rights reserved.