Federal Retirement Thrift Investment Board (FRTIB)

Board Meeting

Audit of the Effectiveness of FRTIB's Information Security Program Under Federal Information Security Modernization Act (FISMA) of 2014

February 25, 2019

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Agenda

1. FISMA Audit Overview
2. How the FRTIB Was Measured
3. Audit Highlights
4. Root Causes
5. Recommendations

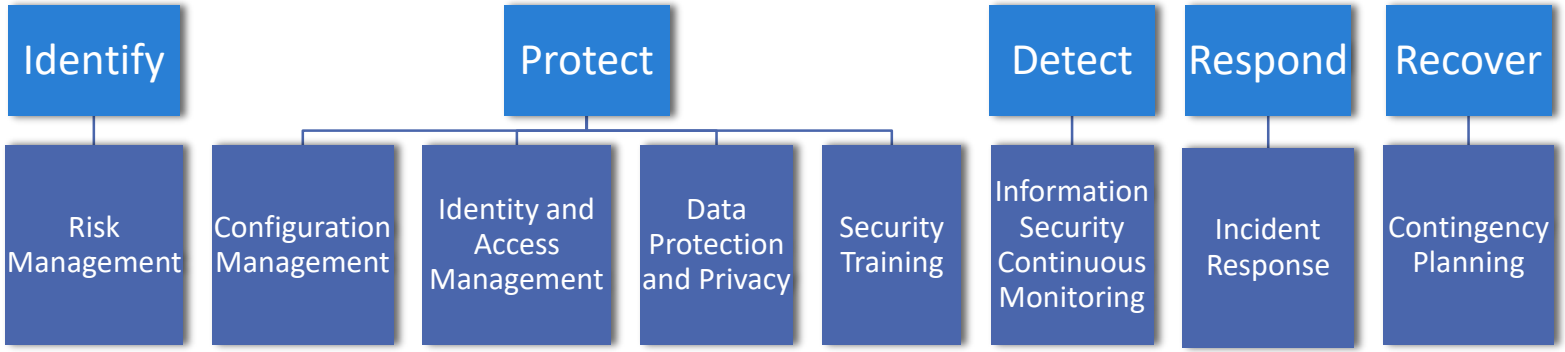
FISMA Audit Overview

- **Objective**
  - Determine the effectiveness of FRTIB's information security program.
- **Scope**
  - Agency-Level Controls
  - System-Specific Controls
- **Time Period**
  - October 1, 2017 –September 30, 2018

How the FRTIB Was Measured

FY 2018 Inspector General (IG) Reporting Metrics

- Align with the NIST Cybersecurity Framework for five function areas and eight underlying domains:



- The FY 2018 IG Reporting Metrics introduced the Data Protection and Privacy domain within the Protect Function.

How the FRTIB Was Measured

FY 2018 IG Maturity Model

- Each level must be satisfactory before advancing to next level

Maturity Level	Maturity Level Description
Level 1: Ad-Hoc	Policies, procedures, and strategies are not formalized; activities are performed in an ad-hoc, reactive manner.
Level 2: Defined	Policies, procedures, and strategies are formalized and documented but not consistently implemented.
Level 3: Consistently Implemented	Policies, procedures, and strategies are consistently implemented, but quantitative and qualitative effectiveness measures are lacking.
Level 4: Managed and Measurable	Quantitative and qualitative measures on the effectiveness of policies, procedures, and strategies are collected across the organization and used to assess them and make necessary changes.
Level 5: Optimized	Policies, procedures, and strategies are fully institutionalized, repeatable, self-generating, consistently implemented, and regularly updated based on a changing threat and technology landscape and business/mission needs.

Audit Highlights

- FRTIB has not fully developed and implemented an effective, organization-wide information security program and sufficiently implemented governance structures to ensure appropriate oversight and monitoring over information security.
- In early FY 2018, FRTIB began to focus on its security governance posture by initiating a comprehensive security assessment of all its systems to ensure information security risks are remediated and monitored.
- FRTIB undertook multiple projects to improve its information security posture during FY 2018. As a result, the maturity ratings of two FISMA domains improved from Level 1 (Ad-Hoc) to Level 2 (Defined) and the Data Protection and Privacy was rated at a Level 2 (Defined).
- FRTIB successfully closed 13 prior FISMA audit recommendations identified during the FY 2016 audit.

Audit Highlights

- The summary of the maturity levels for the applicable FISMA domains are detailed below:

FISMA Metric Domain	Maturity Model Rating
Risk management	Level 1 (Ad-Hoc)
Configuration management	**Level 2 (Defined)**
Identity and access management	**Level 2 (Defined)**
Data protection and privacy	**Level 2 (Defined)**
Security training	Level 1 (Ad-Hoc)
Information Security Continuous Monitoring	Level 1 (Ad-Hoc)
Incident response	Level 1 (Ad-Hoc)
Contingency planning	Level 1 (Ad-Hoc)

Root Causes

- FRTIB has not implemented an effective organization-wide information security program and governance structure because of:
  - Inconsistent execution of the Risk Management Framework;
  - Documented policies and procedures do not reflect current processes;
  - Updated processes are not mature enough to identify process improvements;
  - Responsibilities between FRTIB and its third party contractors are inadequately defined; and
  - Projects designed to improve information security posture are not complete.

Recommendations

- Perform a comprehensive review of the processes supporting the agency's assessment and authorization program.
- Update existing governing documents to ensure they are consistent with FRTIB's current process for privacy threshold analyses, privacy impact assessments, and incident response reporting and tracking.
- Develop and implement a process to ensure that all individuals with significant security responsibilities receive required specialized training before gaining access to information systems or before performing assigned duties.
- Develop ISCM strategy and its supporting policies and procedures.

Thank you.

Questions?