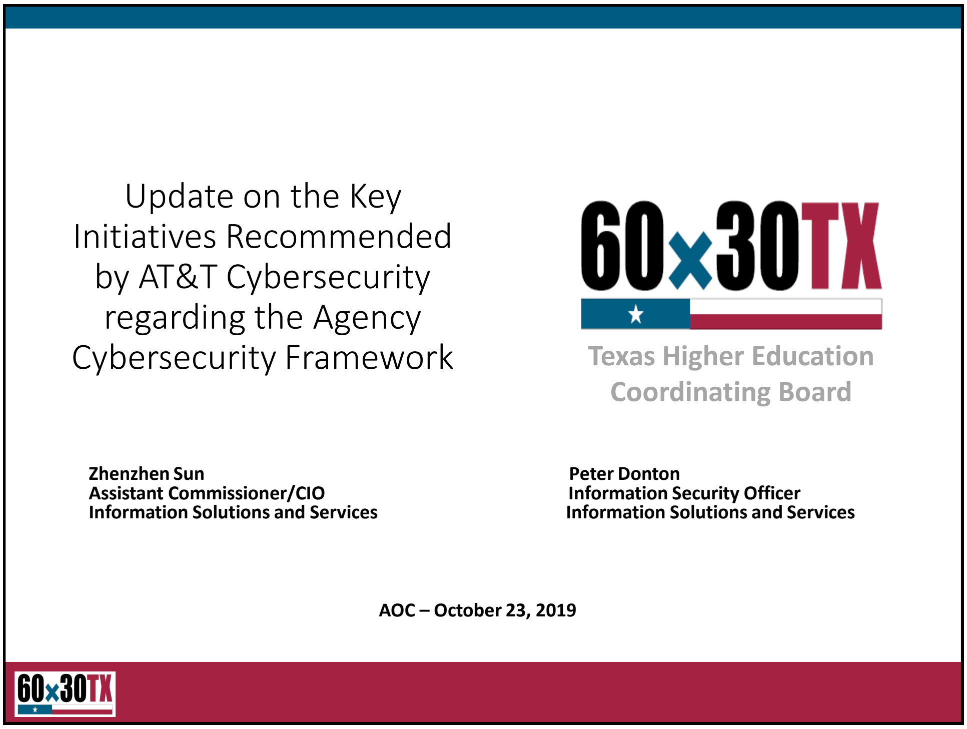


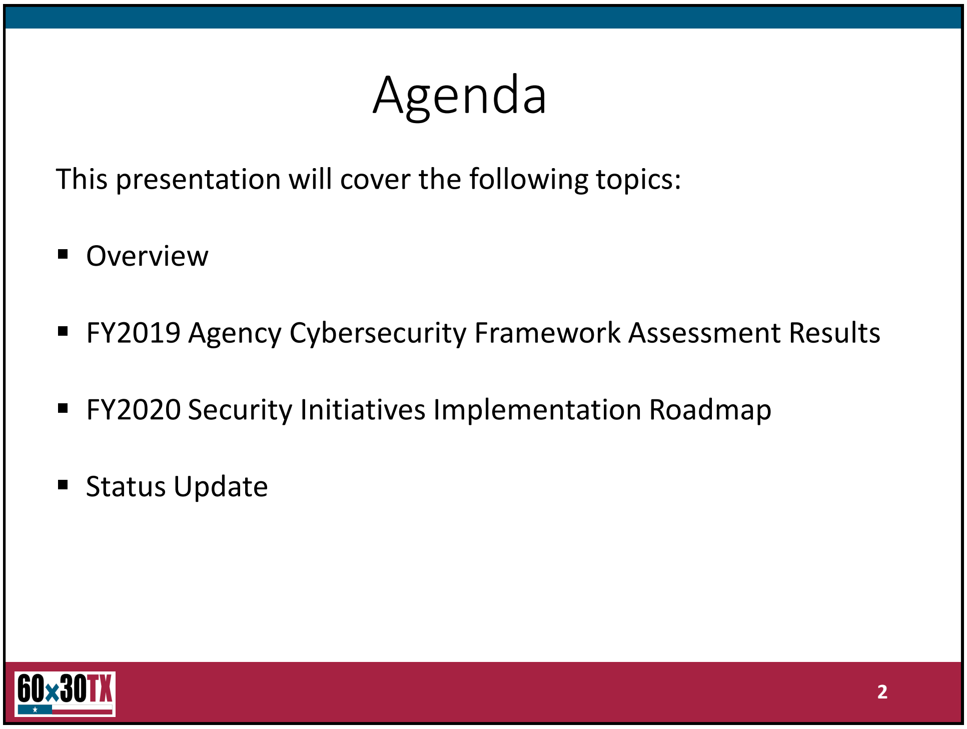
Update on the Key Initiatives Recommended by AT&T Cybersecurity regarding the Agency Cybersecurity Framework

Texas Higher Education Coordinating Board

Zhenzhen Sun
Assistant Commissioner/CIO
Information Solutions and Services

Peter Donton
Information Security Officer
Information Solutions and Services

AOC – October 23, 2019



Agenda

This presentation will cover the following topics:

- Overview
- FY2019 Agency Cybersecurity Framework Assessment Results
- FY2020 Security Initiatives Implementation Roadmap
- Status Update

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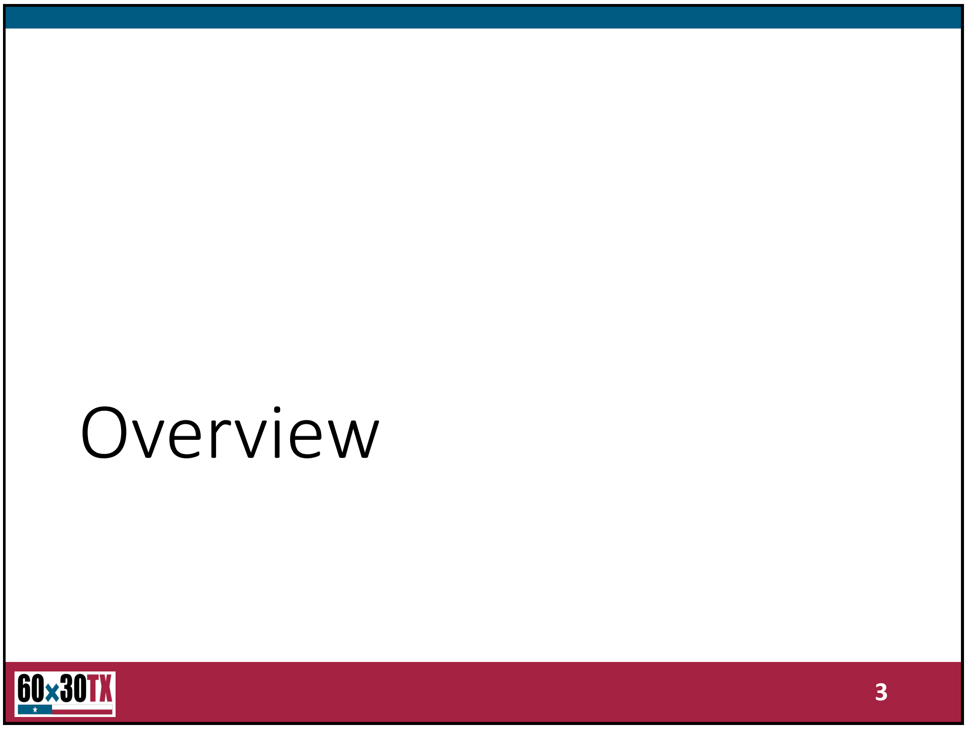

Overview

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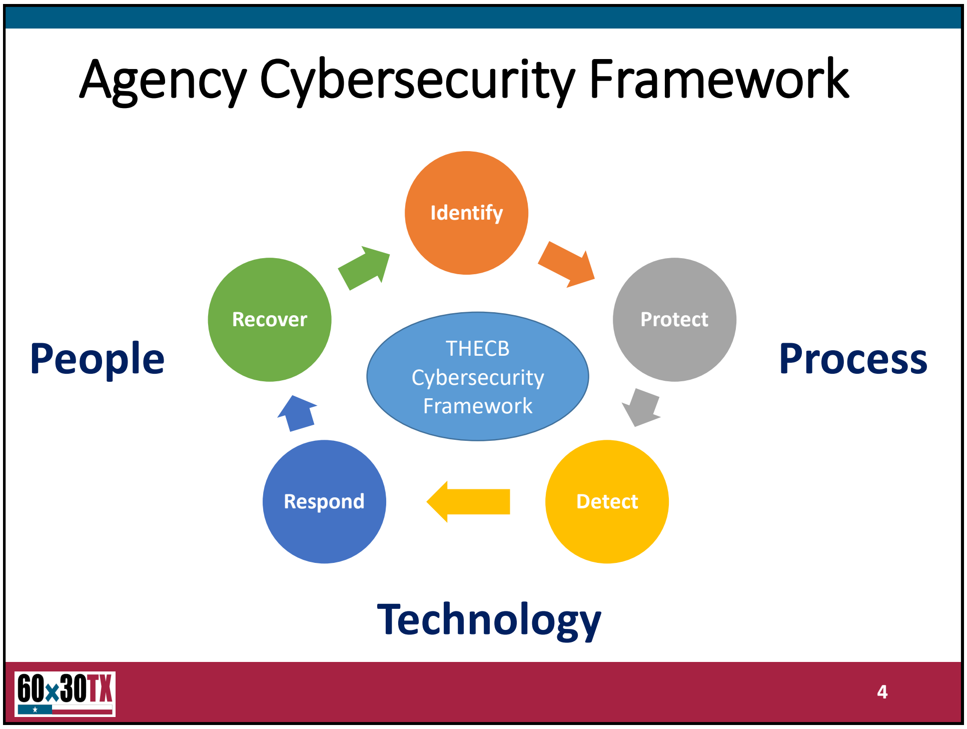


Agency Cybersecurity Framework

Identify

Protect

Detect

Respond

Recover

THECB Cybersecurity Framework

People

Process

Technology

4

Information Security Governance at THECB

Security Governance

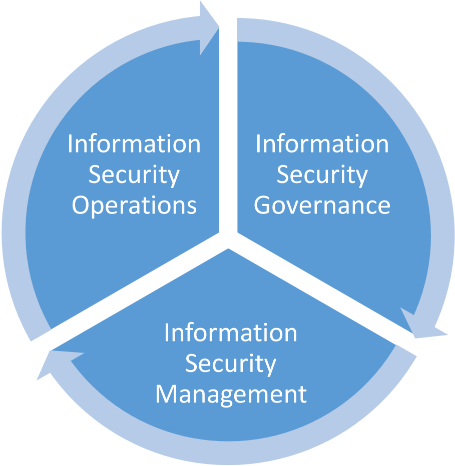
- Sets direction and priority

Security Management

- Implements the security program

Security Operations

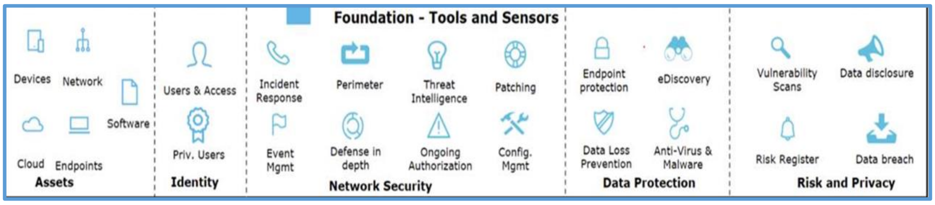
- Executes the plan


Information Security Operations
Information Security Governance
Information Security Management

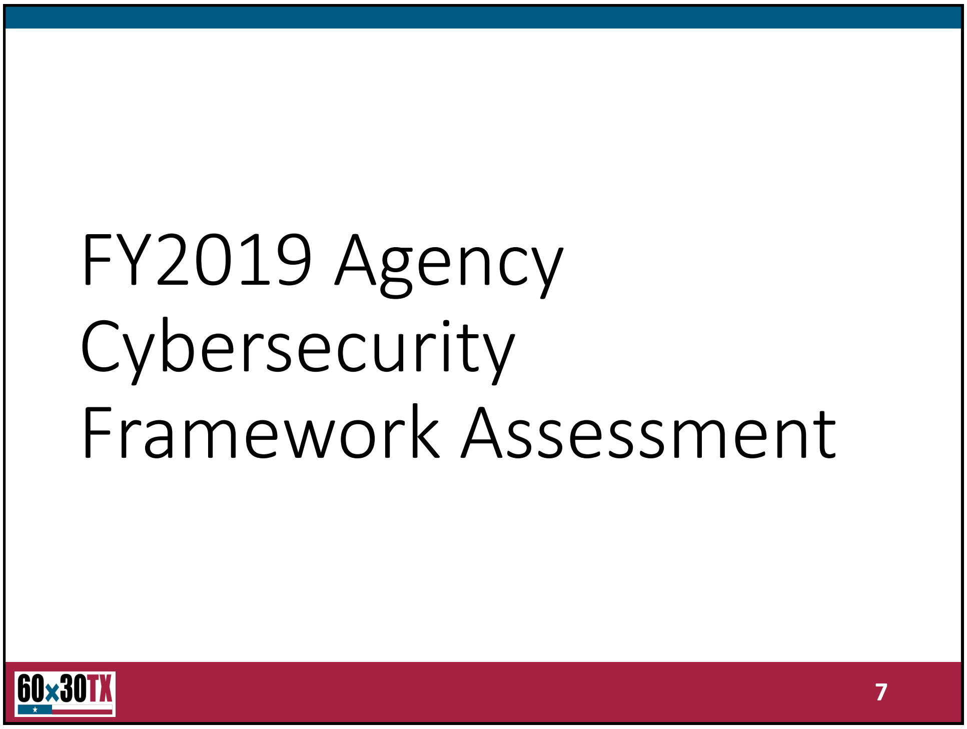
Continuous Security Monitoring

Tools, Sensors and Processes have been implemented to:

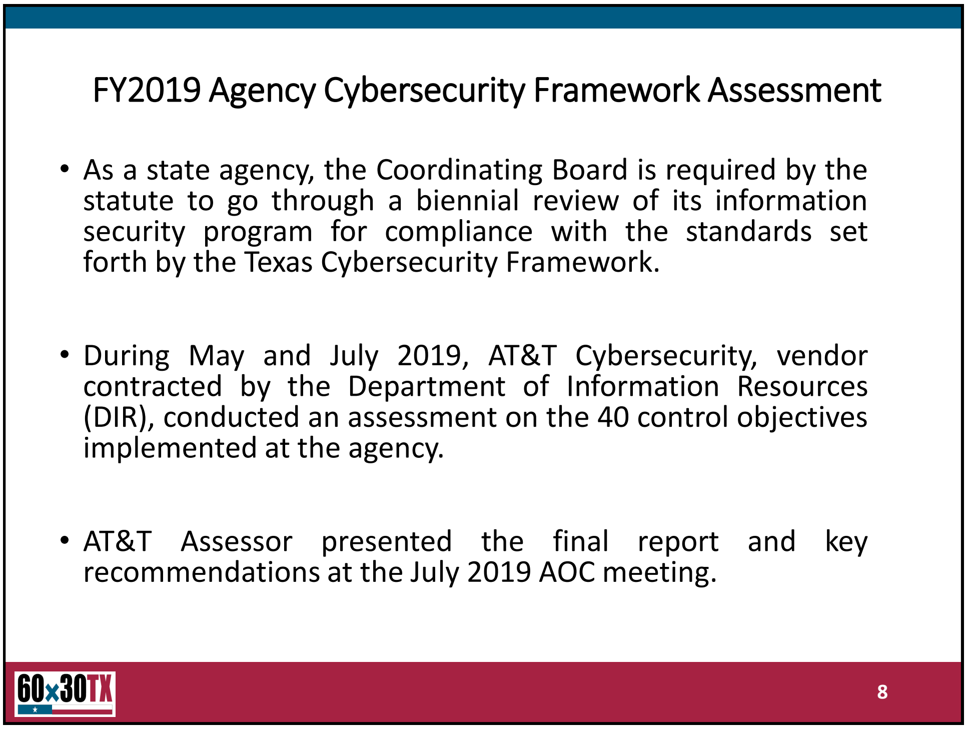
- provide real-time visibility into the agency's security posture
- constantly monitor for cyber threats, security misconfigurations, or other vulnerabilities



Source: National Institute of Standards and Technology, and Department of Homeland Security

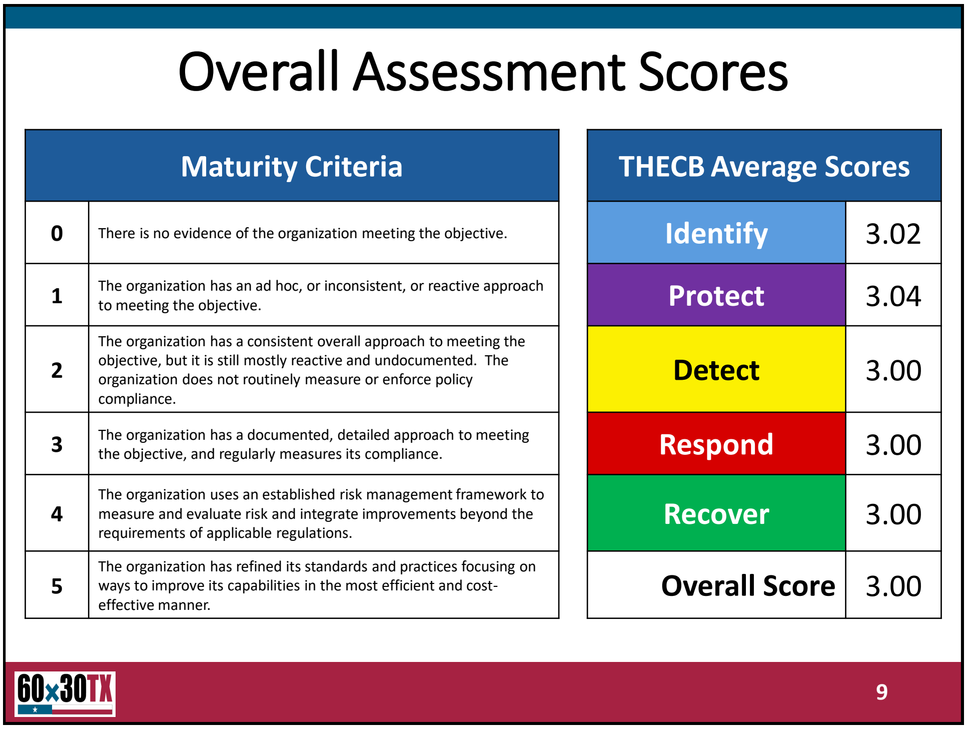


FY2019 Agency Cybersecurity Framework Assessment



FY2019 Agency Cybersecurity Framework Assessment

- As a state agency, the Coordinating Board is required by the statute to go through a biennial review of its information security program for compliance with the standards set forth by the Texas Cybersecurity Framework.
- During May and July 2019, AT&T Cybersecurity, vendor contracted by the Department of Information Resources (DIR), conducted an assessment on the 40 control objectives implemented at the agency.
- AT&T Assessor presented the final report and key recommendations at the July 2019 AOC meeting.



Overall Assessment Scores

Maturity Criteria	
0	There is no evidence of the organization meeting the objective.
1	The organization has an ad hoc, or inconsistent, or reactive approach to meeting the objective.
2	The organization has a consistent overall approach to meeting the objective, but it is still mostly reactive and undocumented. The organization does not routinely measure or enforce policy compliance.
3	The organization has a documented, detailed approach to meeting the objective, and regularly measures its compliance.
4	The organization uses an established risk management framework to measure and evaluate risk and integrate improvements beyond the requirements of applicable regulations.
5	The organization has refined its standards and practices focusing on ways to improve its capabilities in the most efficient and cost-effective manner.

THECB Average Scores	
Identify	3.02
Protect	3.04
Detect	3.00
Respond	3.00
Recover	3.00
Overall Score	3.00

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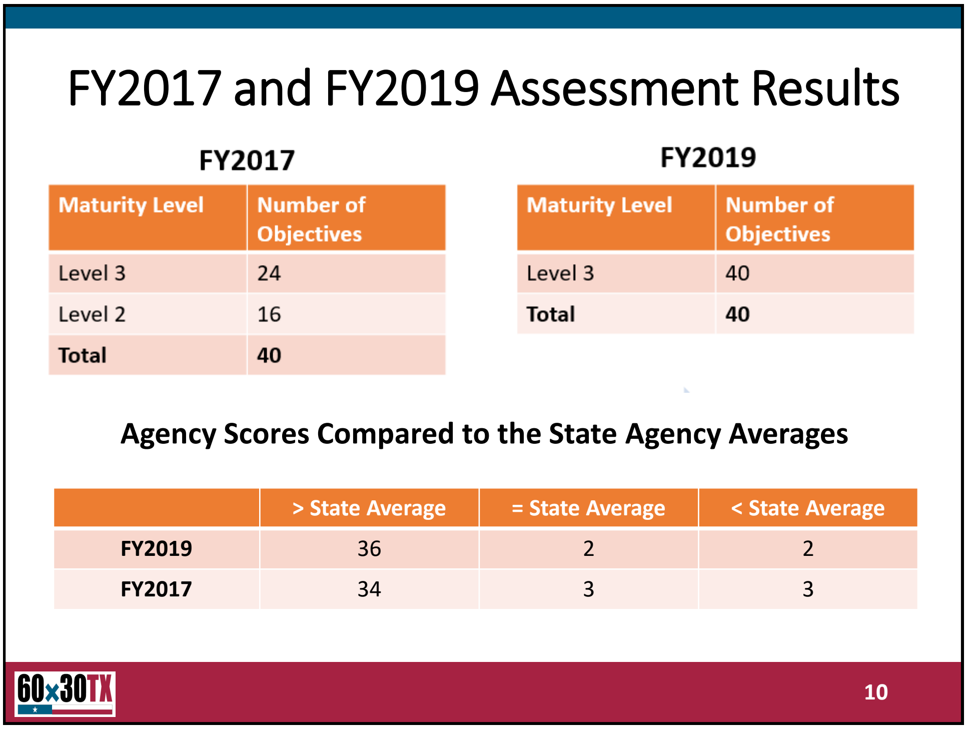

FY2017 and FY2019 Assessment Results

FY2017

Maturity Level	Number of Objectives
Level 3	24
Level 2	16
Total	**40**

FY2019

Maturity Level	Number of Objectives
Level 3	40
Total	**40**

Agency Scores Compared to the State Agency Averages

	> State Average	= State Average	< State Average
FY2019	36	2	2
FY2017	34	3	3

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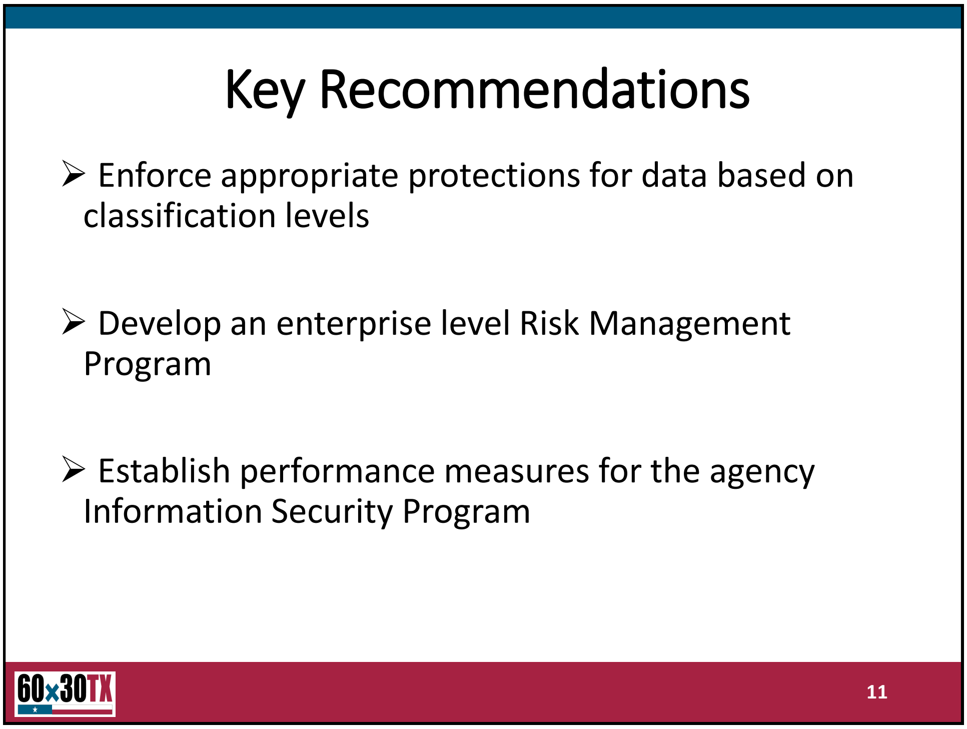
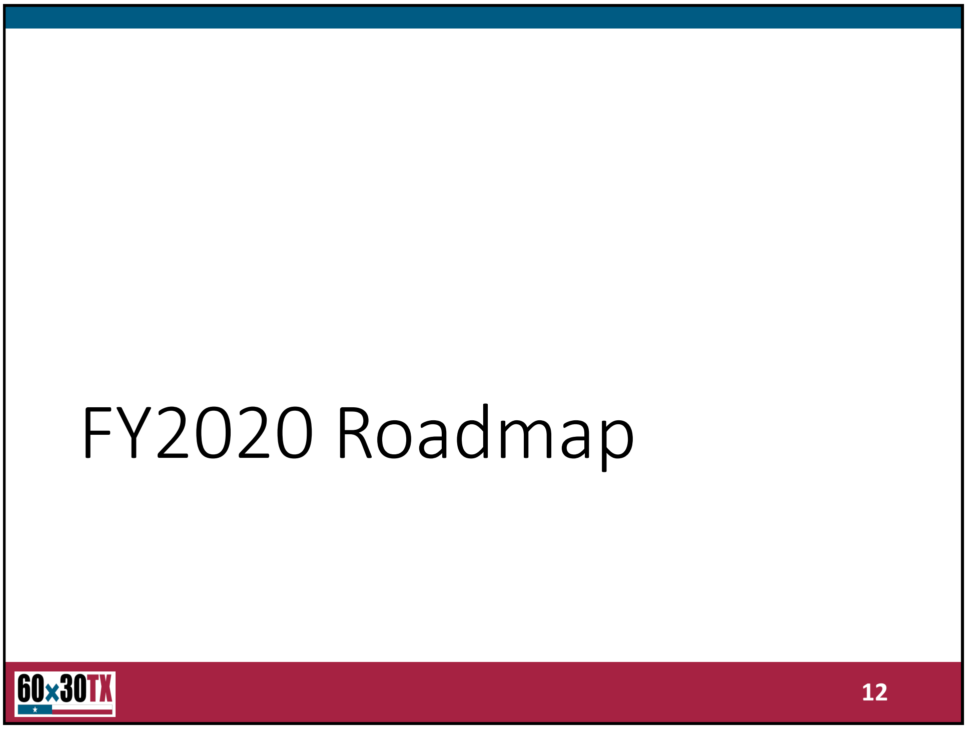
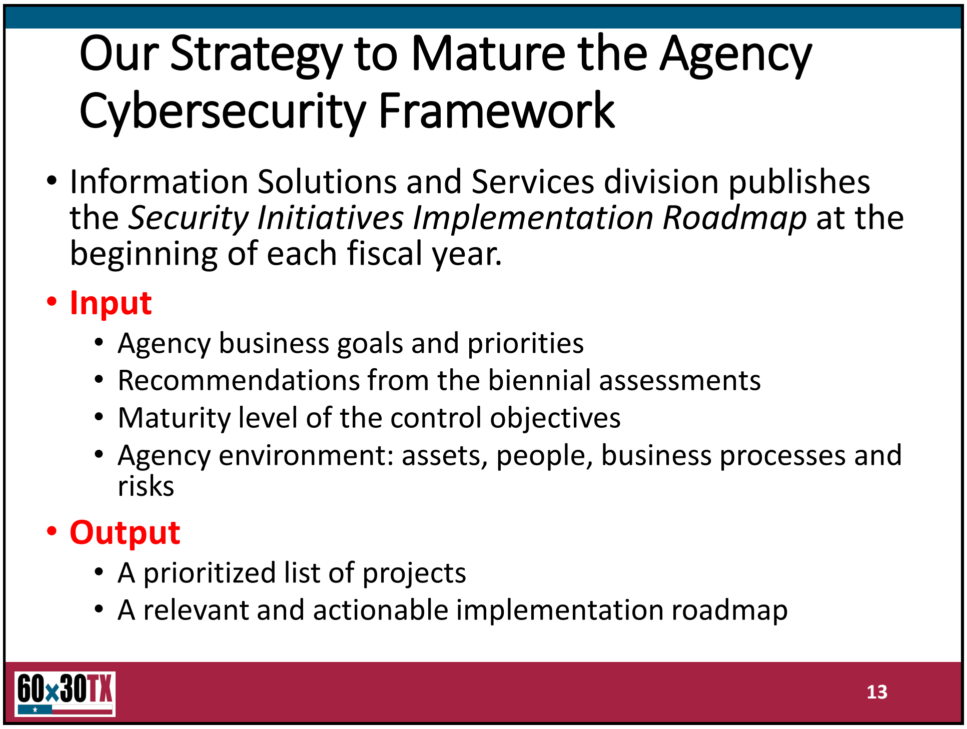


Key Recommendations

- ➢ Enforce appropriate protections for data based on classification levels
- ➢ Develop an enterprise level Risk Management Program
- ➢ Establish performance measures for the agency Information Security Program

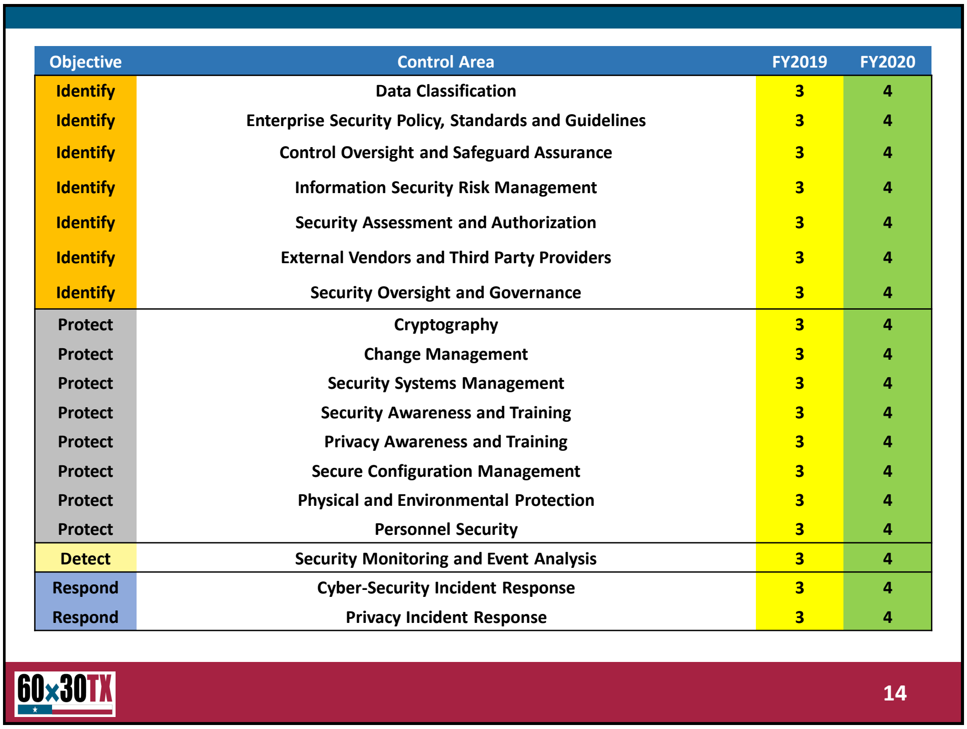


FY2020 Roadmap

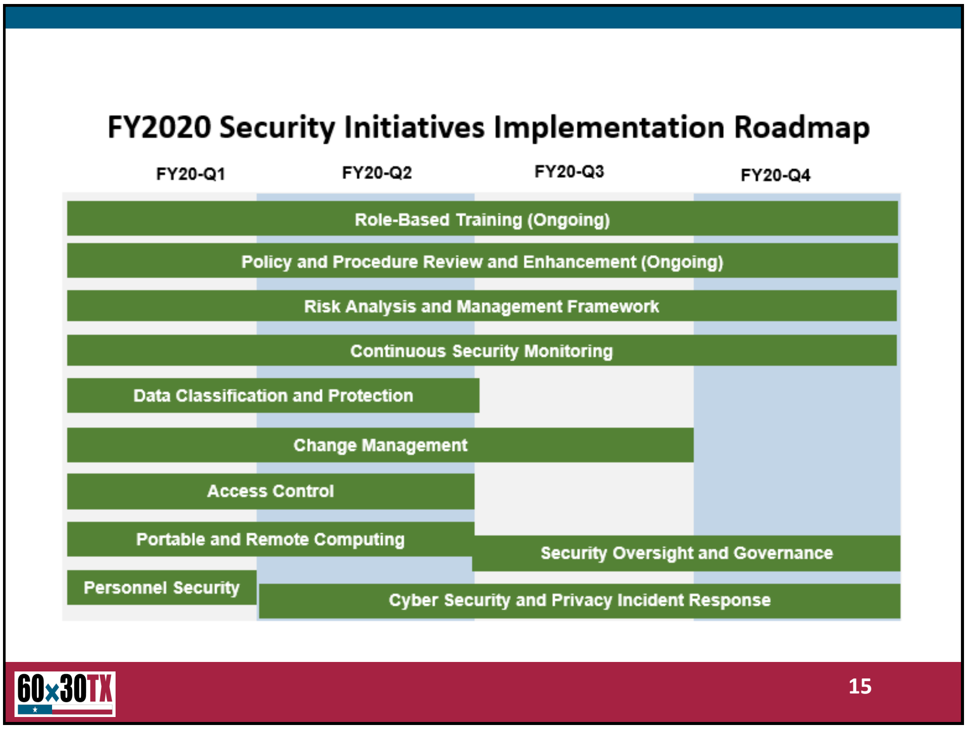


Our Strategy to Mature the Agency Cybersecurity Framework

- Information Solutions and Services division publishes the *Security Initiatives Implementation Roadmap* at the beginning of each fiscal year.
- **Input**
  - Agency business goals and priorities
  - Recommendations from the biennial assessments
  - Maturity level of the control objectives
  - Agency environment: assets, people, business processes and risks
- **Output**
  - A prioritized list of projects
  - A relevant and actionable implementation roadmap



Objective	Control Area	FY2019	FY2020
Identify	Data Classification	3	4
Identify	Enterprise Security Policy, Standards and Guidelines	3	4
Identify	Control Oversight and Safeguard Assurance	3	4
Identify	Information Security Risk Management	3	4
Identify	Security Assessment and Authorization	3	4
Identify	External Vendors and Third Party Providers	3	4
Identify	Security Oversight and Governance	3	4
Protect	Cryptography	3	4
Protect	Change Management	3	4
Protect	Security Systems Management	3	4
Protect	Security Awareness and Training	3	4
Protect	Privacy Awareness and Training	3	4
Protect	Secure Configuration Management	3	4
Protect	Physical and Environmental Protection	3	4
Protect	Personnel Security	3	4
Detect	Security Monitoring and Event Analysis	3	4
Respond	Cyber-Security Incident Response	3	4
Respond	Privacy Incident Response	3	4



FY2020 Security Initiatives Implementation Roadmap

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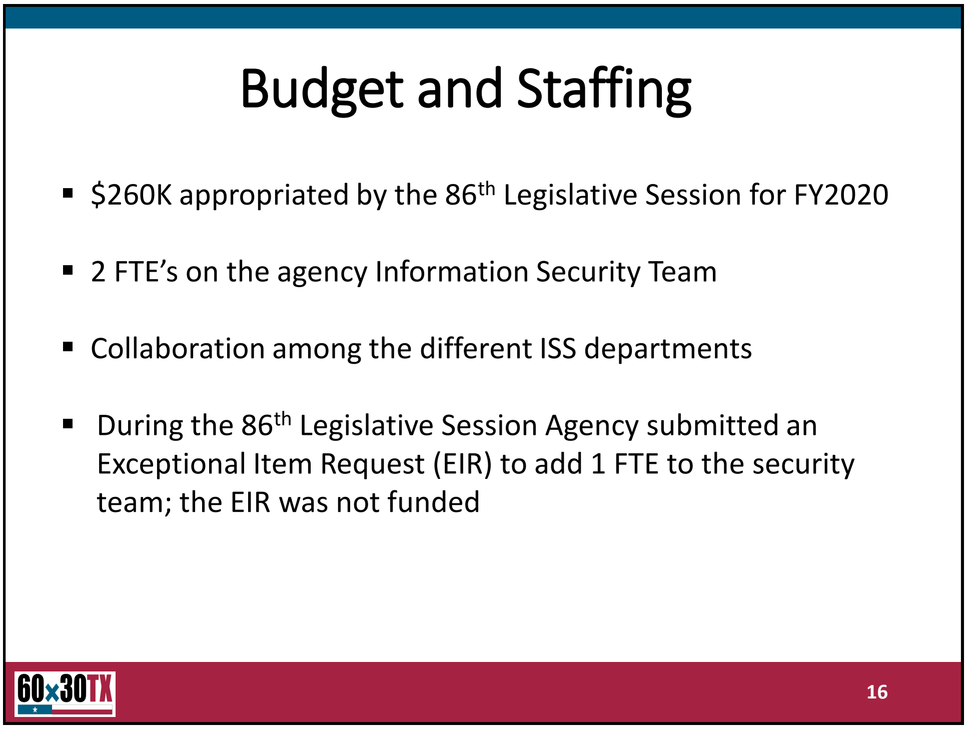

Budget and Staffing

- $260K appropriated by the 86th Legislative Session for FY2020
- 2 FTE's on the agency Information Security Team
- Collaboration among the different ISS departments
- During the 86th Legislative Session Agency submitted an Exceptional Item Request (EIR) to add 1 FTE to the security team; the EIR was not funded

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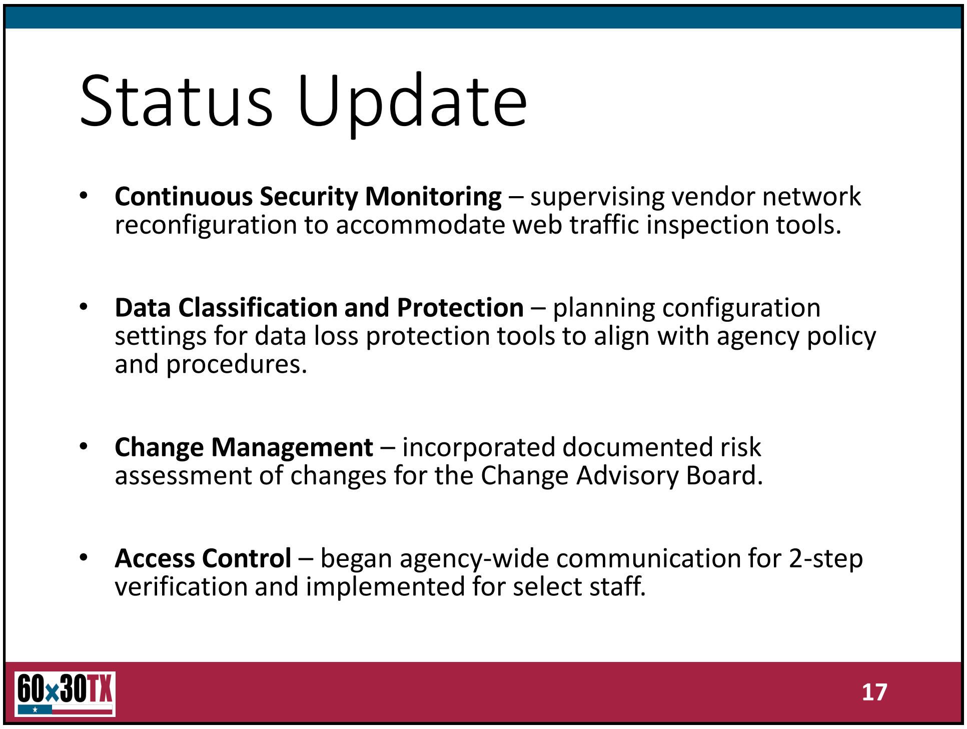

Status Update

- **Continuous Security Monitoring** – supervising vendor network reconfiguration to accommodate web traffic inspection tools.
- **Data Classification and Protection** – planning configuration settings for data loss protection tools to align with agency policy and procedures.
- **Change Management** – incorporated documented risk assessment of changes for the Change Advisory Board.
- **Access Control** – began agency-wide communication for 2-step verification and implemented for select staff.

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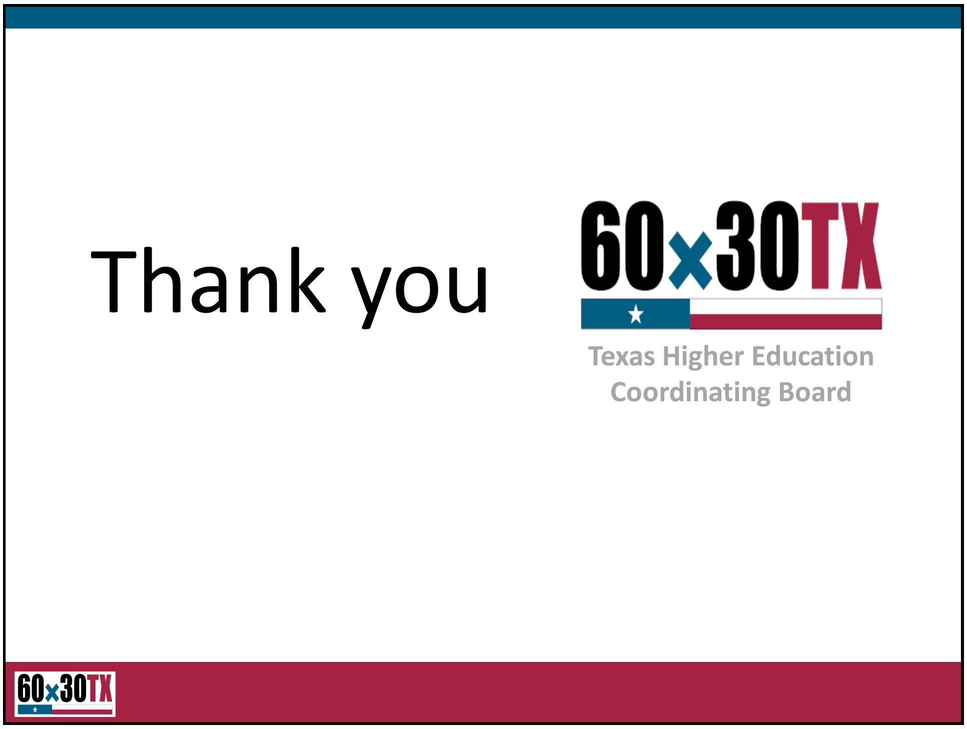

Thank you

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Texas Higher Education
Coordinating Board