TABLE OF CONTENTS
FOR
AUDIT, COMPLIANCE, AND RISK MANAGEMENT COMMITTEE

Committee Meeting: 11/14/2018

Board Meeting: 11/15/2018
Richardson, Texas

David J. Beck, Chairman
Ernest Aliseda
Kevin P. Eltife
R. Steven Hicks
Janiece Longoria
Rad Weaver

1. U. T. System Board of Regents: Discussion and appropriate action regarding Consent Agenda items, if any, assigned for Committee consideration

RECOMMENDATION

No Consent Agenda items are assigned for review by this Committee.

2. **U. T. System: Report on Audits of the Systemwide Cancer Prevention and Research Institute of Texas Grants**

REPORT

Chief Audit Executive Peppers will report on the audit work conducted on the Cancer Prevention and Research Institute of Texas (CPRIT) grants at U. T. institutions. A summary of the results was provided to the Audit, Compliance, and Risk Management Committee members prior to the meeting.

BACKGROUND INFORMATION

The engagement of Deloitte & Touche LLP to conduct the external financial statement audit of U. T. System also includes the performance of audits of Fiscal Year (FY) 2017 CPRIT grant activity for seven U. T. institutions. Four other U. T. institutions engaged Weaver & Tidwell to perform agreed upon procedures of FY 2017 CPRIT grant activity.

3. **U. T. System: Report on the Systemwide internal audit activities, including the FY 2018 Annual Report**

REPORT

Chief Audit Executive Peppers will present the FY 2018 Systemwide Annual Report of internal audit activities, using a PowerPoint presentation set forth on the following pages. He will also discuss the status of the external financial audit. The annual audit plan status was provided to Audit, Compliance, and Risk Management Committee members prior to the meeting.

BACKGROUND INFORMATION

Internal audit across the U. T. System uses a consistent findings classification process to evaluate audit results to identify Priority, High, Medium, or Low level reportable findings. A Priority Finding is defined as "an issue identified by an internal audit that, if not addressed timely, could directly impact achievement of a strategic or important operational objective of a U. T. institution or the U. T. System as a whole." All reportable findings are rated based on an assessment of applicable risk factors and the probability of a negative outcome occurring if the risk is not adequately mitigated. The standard risk factors considered are: Qualitative (evaluates the probability and consequences across seven areas), Operational Control (evaluates operational vulnerability to risks by considering the existence of management oversight and effective alignment of operations), and Quantitative (evaluates the level of financial exposure or lost revenue).

FY 2018 Systemwide Internal Audit Annual Report

Mr. J. Michael Peppers, U. T. System Chief Audit Executive

U. T. System Board of Regents' Meeting

Audit, Compliance, and Risk Management Committee

November 2018

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Systemwide Internal Audit Strategic Items

- Strengthen governance practices through discussions with audit committee members and chief audit executives

- Increase collaboration with risk partners

- FY 2019 Initiatives
  - Expand IT auditing capabilities
  - Enhance advisory and consulting services

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Systemwide Internal Audit Hours

- During Fiscal Year (FY) 2018, approximately 161k hours were incurred to complete the Systemwide Annual Audit Plan.

- Of these hours, 70% was spent on Risk-Based, Required, Consulting, Investigation, and Follow-up engagements.

3
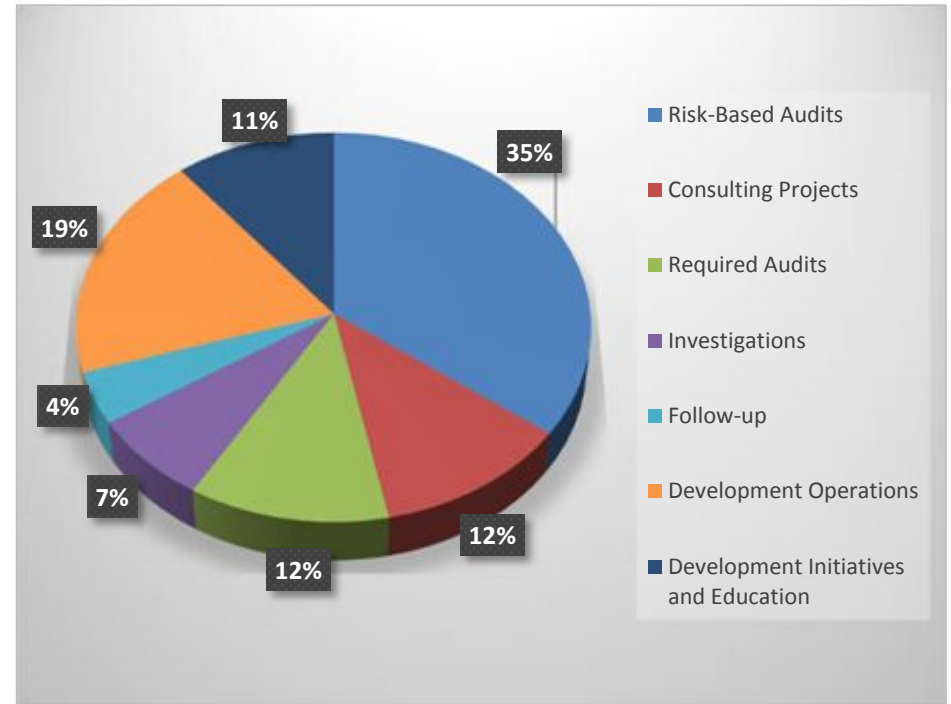
Systemwide Internal Audit – Reports and Findings

- During FY 2018, 231 engagement reports and memos were issued.

- 104 of the 231 reports resulted in 415 findings ranked as follows:
  - 5 Priority level findings
  - 113 High level findings
  - 225 Medium level findings
  - 72 Low level findings

- The average client survey score for these audits was 4.63 out of a range of 1 (strongly dissatisfied) to 5 (strongly satisfied).

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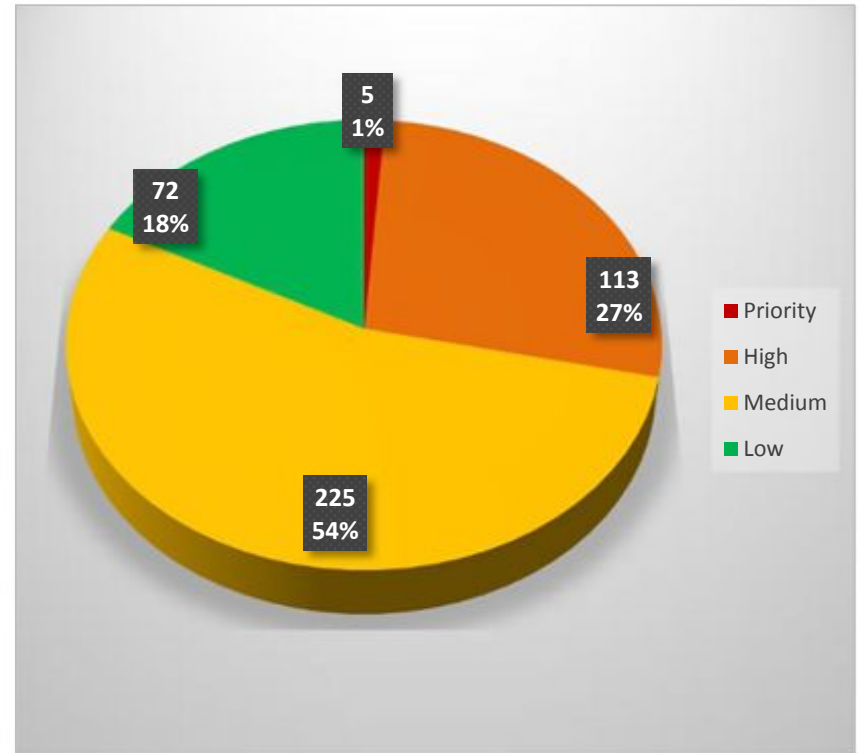
Findings from Risk-Based and Required Audits

Risk-based audits result in greater numbers and higher levels of recommendations.
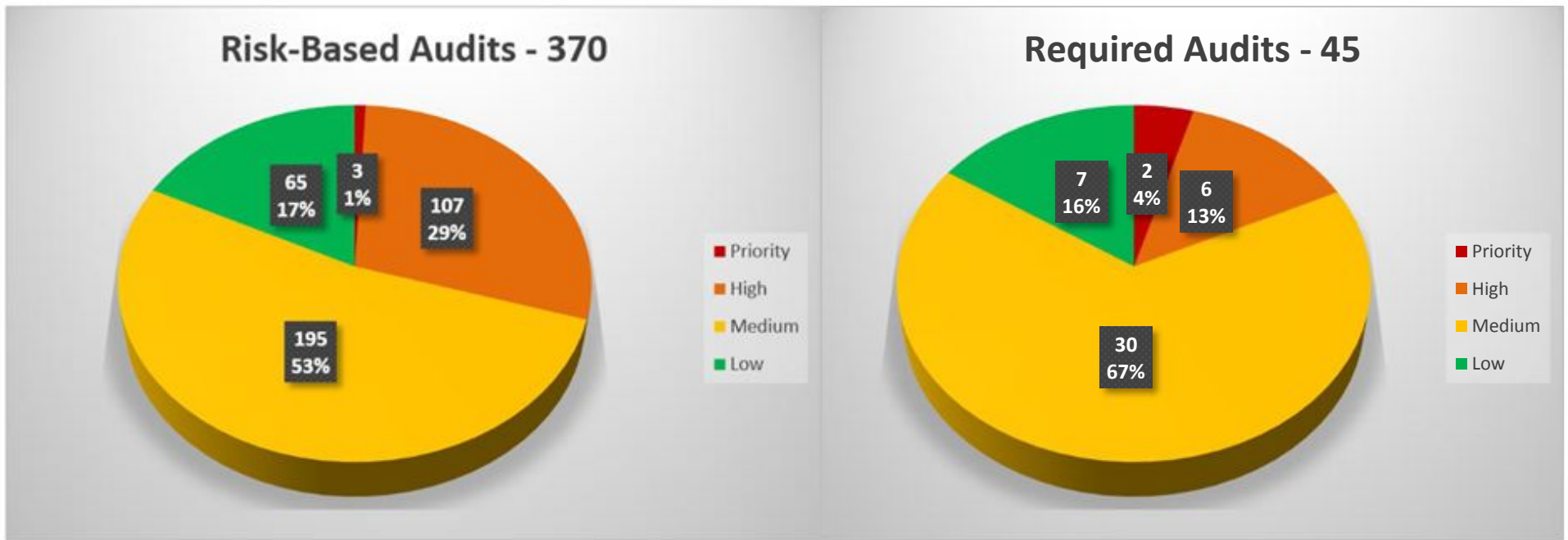
Findings by Subject Area (Taxonomy)

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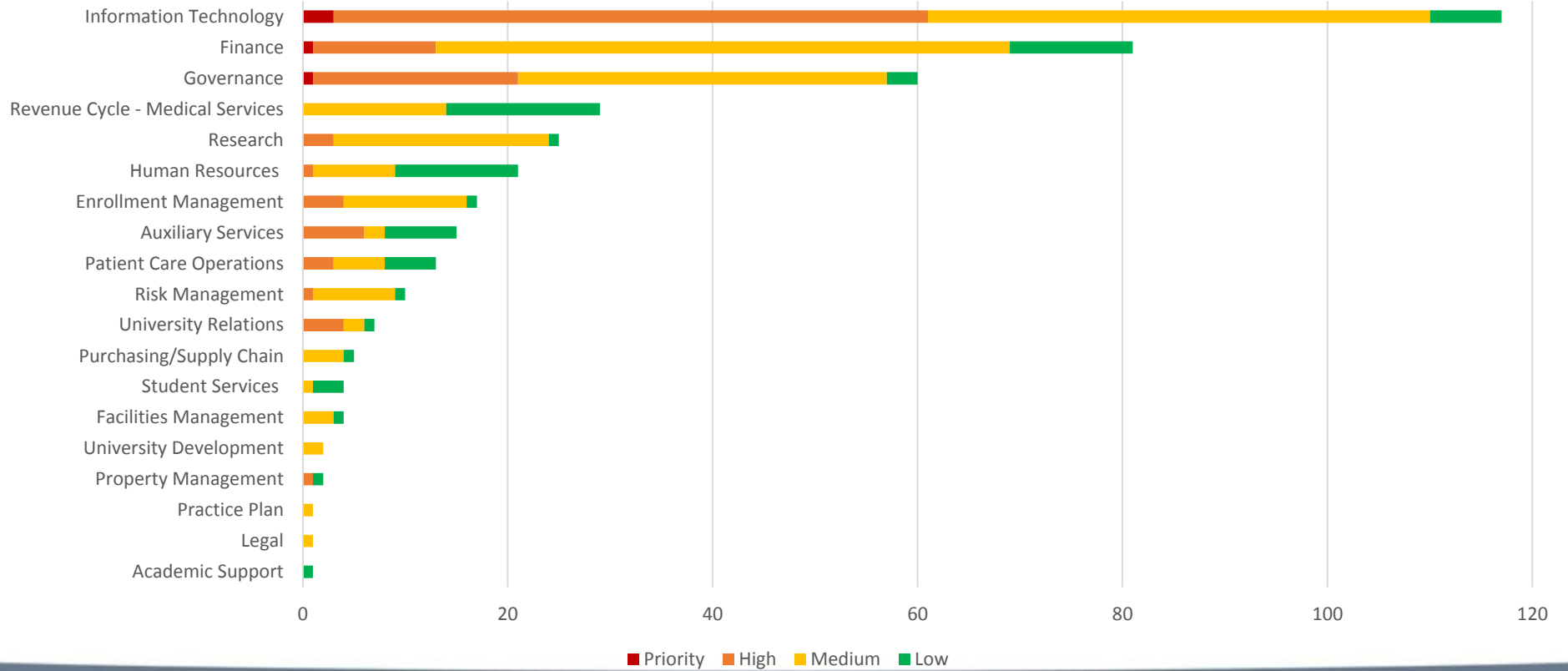
Findings by Risk Factors

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Findings By Categories

Category	Value
Accuracy of Records	45
Compliance with Policies and Procedures	42
Policies	37
Monitoring	36
System/Data Access	34
Compliance	29
Effectiveness of Controls	21
Cost Allocation	15
Management Review	14
Training	13
Asset and Inventory Tracking/Management	13
Reconciliation	11
Process Efficiency	11
Approvals	11

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Internal Audit Competencies as of FYE 2018

- 74% of the professional employees hold the following professional certifications:

- Certified Public Accountant
- Certified Internal Auditor
- Certified Information Systems Auditor
- Certified Fraud Examiner
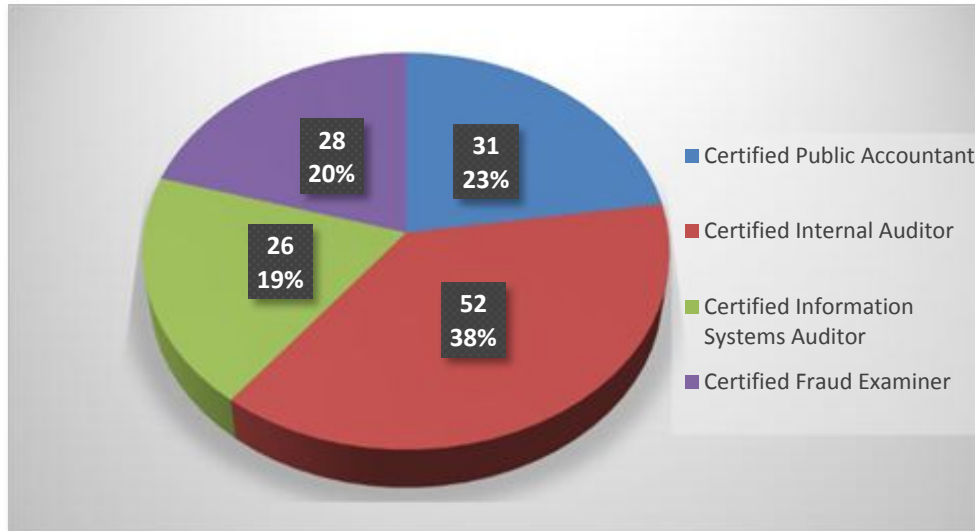
- 34% of the professional employees hold advanced degrees

- Average number of years of relevant and U. T. experience is 17 and 9 years, respectively

- Professional employees participated in an average of 55 hours of continuing professional education during the fiscal year

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Professional Contributions by Internal Audit Staff

- Held several board and other leadership positions on professional organizations and advisory boards at the local, national, and global levels

- Presented at various conferences to provide continued professional education trainings

- Served as part-time adjunct and guest lecturers, participated in student mentorship program, and made presentations to auditing classes

- Contributed in various roles to multiple professional publications

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Student Opportunities in Internal Audit

Through educational partnerships, internships, and other activities, provided professional auditing experience to students at:

- U. T. Austin
- U. T. Dallas
- U. T. El Paso
- U. T. San Antonio
- U. T. Tyler
- U. T. Southwestern Medical Center
- U. T. System Administration

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11

4.   U. T. System: Discussion and presentation of Systemwide Compliance Risk Assessment

REPORT

Chief Compliance and Risk Officer Dendy and Executive Director of Systemwide Compliance and Ethics Officer King will report on the results of the recently concluded Systemwide Risk Assessment. A PowerPoint presentation is set forth on the following pages.

BACKGROUND INFORMATION

As a part of a comprehensive approach to a Systemwide compliance program, and as required by Article V, Subpart (f) of The University of Texas System Systemwide Compliance Charter, the Office of Systemwide Compliance conducted a Systemwide Compliance Risk Assessment in Summer 2018.

The Chief Compliance and Risk Officer and the Executive Director of Systemwide Compliance and Ethics Officer will briefly discuss:

- The methodology of the risk assessment

- Scope and limitations of the assessment

- Primary Systemwide compliance risks:

    - Research
    - Medical billing/operations
    - Title IX/student & minor safety
    - Privacy
    - Ethics
    - Information security

Systemwide Compliance Risk Assessment

Mr. Jason King, Executive Director of Systemwide Compliance and Ethics Officer

U. T. System Board of Regents' Meeting

Audit, Compliance, and Risk Management Committee

November 2018

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Methodology

- Built upon institutional risk assessments

    - Utilize existing resources

    - Generate a minimum of additional work at the institutional level

    - Ensure accuracy

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Scope and Limitations

- Compliance risks

- Quantification challenges

- Varying institutional methodologies

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Primary Risk Areas

- Research

- Medical billing/operations

- Title IX/student & minor safety

- Privacy

- Ethics

- Information security

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5.   U. T. System: Report and discussion on Information Security Program

REPORT

Ms. Helen Mohrmann, Chief Information Security Officer, will report on activities of the Office of Information Security and various initiatives. A PowerPoint presentation is set forth on the following pages.

BACKGROUND INFORMATION

The Office of Information Security oversees security for information systems managed by U. T. System Administration and provides a stewardship and service function to U. T. institutions. This Office also administers funds allocated by the Board for information security. This annual report will review use of those funds and current projects.

Information Security Annual Report

Ms. Helen Mohrmann, Chief Information Security Officer

U. T. System Board of Regents' Meeting
Audit, Compliance, and Risk Management Committee
November 2018

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The Role of the U. T. System Chief Information Security Officer (CISO)

- Regularly communicate with institution CISOs and CIOs

- Identify gaps at individual institutions on a periodic basis and advocate for strategies and resources to address them

- Establish policies (UTS 165); identify and promote best practices

- Create focus by defining and collecting metrics

- Leverage expertise across institutions

- Serve as primary contact for discussions with the U. T. System Board of Regents and the Texas Department of Information Resources (DIR)

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Institution CISOS

- Actively engage in business process and information technology planning

- Actively monitor network and system traffic

- Investigate incidents

- Conduct awareness training

- Conduct risk assessments

- Fulfill institutional, System, and DIR reporting requirements

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Previous Systemwide Work

- 2009 - U. T. System commissions U. T. Austin to provide an intrusion detection service to all institutions

- 2010 - Deloitte study identifies 102 high and medium priority recommendations

- 2011 - The Board allocates $29.255M to address the Deloitte recommendations

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Selected Systemwide Improvements

- Service subscription assists with third party risk assessment

- Laptops encrypted

- Patient privacy monitoring software implemented

- Back up capabilities were expanded

- Physical security of data centers was improved

- Software to identify confidential data on users' workstations implemented

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Current Major Risks

- **Existing network architectures**

- **Visibility of the cybersecurity issues and trade-offs to senior leadership**

- Theft of intellectual property

- Technical controls in decentralized IT

- Capabilities to track sensitive data

- Vendors and third-party services

- Budget and resource pressures

- Internet of Things, particularly medical devices

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Projects Currently In Progress

Projects in Progress	Cost	Estimated End Date
Institution audit committee reporting package	$ 140,000	December 2018
Third-party study of institution networks	$ 700,000	March 2019

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Third-Party Study of Institution Networks

- Networks are a key component of an institution's security program

- Study will develop minimum baseline of capabilities as well as specific recommendations for each institution

- Periodic replacement of network equipment is essential and difficult to fund

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Institution Audit Committee Reporting Package

- Creates a framework for consistent reporting on information security at each institution

- Enables a view across the System of key risks

- Will create a common security risk register

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What is Planned Next

Project	Estimated Cost	Estimated Schedule
Penetration tests and red team exercises provided to institutions by U. T. Austin	$ 500,000	FY19-20
Information security risk assessment process development	$ 1,000,000	FY19-20
Renewal of various services	$ 900,000	FY20
Comprehensive third-party assessment of security program and technical controls at each institution	$ 2,000,000	FY20

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AUF Funding Request

Product/Service	Cost	Coverage Period
Improve and extend coverage of U. T. Austin Intrusion Detection Service	$10,000,000	Four years
Upgrade Microsoft license to include important new security features	$6,000,000	Three years
Upgrade the vulnerability scanning service provided by U. T. Austin	$900,000	Three years

11

6. **U. T. System: Discussion and appropriate action regarding request for additional funding of $16,900,000 from Available University Funds (AUF) to expand the capabilities of the Intrusion Detection System (IDS), upgrade the vulnerability scanning service, and license a suite of other information security-related products**

RECOMMENDATION

The Chancellor concurs in the recommendation of the Chief Compliance and Risk Officer, the Executive Vice Chancellor for Business Affairs, and the Vice Chancellor and General Counsel that the U. T. System Board of Regents approve additional funding in the amount of $16,900,000 from Available University Funds (AUF) for Systemwide security services and applications.

In addition, the Board is asked to find that expenditure of AUF for this purpose is appropriate under the U. T. System's responsibilities to oversee and coordinate the activities and operations of the U. T. institutions, with the intent that the expenditure will benefit all academic and health institutions.

BACKGROUND INFORMATION

Information security is a significant high-risk area within the U. T. System. The Systemwide Intrusion Detection System (IDS) has reliably served U. T. institutions in detecting and reporting system compromises, high-risk vulnerabilities, and data exfiltration events but has only covered portions of the data traffic generated by the institutions. Of the requested $16,900,000, $10,000,000 will be added to the amount approved by the Board at the May 1, 2018 meeting to expand the coverage of the intrusion detection system provided by U. T. Austin on behalf of U. T. System; $900,000 will be used to upgrade the software to enhance the vulnerability scanning service provided by U. T. Austin on behalf of U. T. System, and $6,000,000 will fund the license of security applications available from Microsoft.