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FOR
AUDIT, COMPLIANCE, AND MANAGEMENT
REVIEW COMMITTEE

Brenda Pejovich, Chairman
Wallace L. Hall, Jr.
R. Steven Hicks
Jeffery D. Hildebrand
Robert L. Stillwell

Committee Meeting: 11/14/2013

Board Meeting: 11/14/2013
Austin, Texas

	Committee Meeting	Board Meeting	Page
A. CONVENE *(Conference Room, Ashbel Smith Hall, 9th Floor)*	*8:30 a.m.* *Chairman Pejovich*		
B. RECESS TO EXECUTIVE SESSION PURSUANT TO *TEXAS GOVERNMENT CODE*, CHAPTER 551			
Personnel matters relating to appointment, employment, evaluation, assignment, duties, discipline, or dismissal of officers or employees - *Texas Government Code* Section 551.074			
U. T. System: Discussion with the Chief Audit Executive concerning personnel matters relating to appointment, employment, evaluation, assignment, duties, discipline, or dismissal of individual System Administration and institutional officers or employees involved in internal audit functions	*Mr. Peppers*		
C. RECONVENE IN OPEN SESSION *(Board Room, Ashbel Smith Hall, 9th Floor)*	*8:45 a.m.*		

D. ADJOURN	*9:15 a.m.*		

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

RECOMMENDATION

The proposed Consent Agenda is located at the back of the book.

2. <u>**U. T. System: Update on implementation of initiatives to address recommendations from the Report on the Strategic Assessment of the U. T. System Internal Audit Services performed by Deloitte**</u>

<u>REPORT</u>

Chief Audit Executive Peppers will provide an update on implementation of initiatives developed to address the recommendations from the report on the Strategic Assessment of the U. T. System Internal Audit Services performed by Deloitte, which was presented at the May 8, 2013 Audit, Compliance, and Management Review Committee meeting. The 17 recommendations have been organized into eight key initiatives to be implemented over a three-year period as follows:

Governance

- Strengthen institutional audit committee independence and capability

- Assess Systemwide and institutional risk management

- Provide resources for governance

Processes, Resources, and Capability Development

- Organize mission and values into objectives, models, and priorities

- Enhance risk assessment methodology

- Develop audit and reporting models

- Quantify and improve team competency

Success and Sustained Quality

- Align internal audit metrics and quality program with improvement plans

3. **U. T. System: Report on the Systemwide internal audit activities, including results of the executive travel and entertainment, laptop encryption and IT inventory, and practice plan audits, and update on the Systemwide internal audit of development activities**

REPORT

Chief Audit Executive Peppers will report on the Executive Travel and Entertainment Expenses audits and the Laptop Encryption and IT Inventory audits that were conducted at U. T. System Administration and each of the U. T. System institutions. He will also report on the practice plan audits that were performed at the U. T. System health institutions. Summaries of the results for these audits were provided to the Regents prior to the meeting.

Chief Audit Executive Peppers will provide an update on the Systemwide internal audit of development activities performed by the U. T. System Audit Office. Reports for U. T. System, U. T. System Administration, and U. T. M. D. Anderson Cancer Center have been issued and were provided to the Regents prior to the meeting. He will also present the results of the U. T. Austin Law School Foundation Special Request Project conducted by the System Audit Office, for which the report was issued and previously provided to the Regents.

4. **U. T. System: Annual Report on Information Security Compliance Enhancements across the U. T. System and on security of the U. T. Research Cyberinfrastructure**

REPORT

Systemwide Compliance Officer Plutko and Chief Information Security Officer Watkins will report on Information Security Compliance Enhancements across the U. T. System and on the security of the U. T. Research Cyberinfrastructure. A PowerPoint presentation is set forth on the following pages.

BACKGROUND INFORMATION

Following a November 10, 2011 report to the Board by Deloitte on its comprehensive information security compliance effectiveness review of the U. T. System, the Board approved the allocation of $34,872,000 of Available University Funds to invest in information security compliance enhancements across the U. T. System and to secure the U. T. Research Cyberinfrastructure.

The Office of Systemwide Compliance administers the investment of these funds through a centrally managed program and is to submit annual reports on progress to the Chancellor and to the Board. This is the second Annual Report.

ANNUAL REPORT ON INFORMATION SECURITY COMPLIANCE ENHANCEMENTS

Audit, Compliance, and Management Review Committee
U. T. System Board of Regents' Meeting

November 2013

Mr. Lewis Watkins, U. T. System Chief Information Security Officer

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U.T. System Common Risks

Risk 1 - Mobile Device Security

Risk 2 - Decentralized IT

Risk 3 - Network Security

Risk 4 - Logging and Monitoring

Risk 5 - Disaster Recovery

Risk 6 - Inconsistent Risk Assessment

Risk 7 - Unencrypted Backup Tapes

Risk 8 - Third-party Risk Management

Risk 9 - Software Development & Configuration Mgt.

Risk 10 - Physical Security

Risk 11 - Identity and Access Management

Risk 12 - Training and Awareness

Risk 13 - CISO Authority and Culture

Information Security gaps posing highest risk across the U. T. System
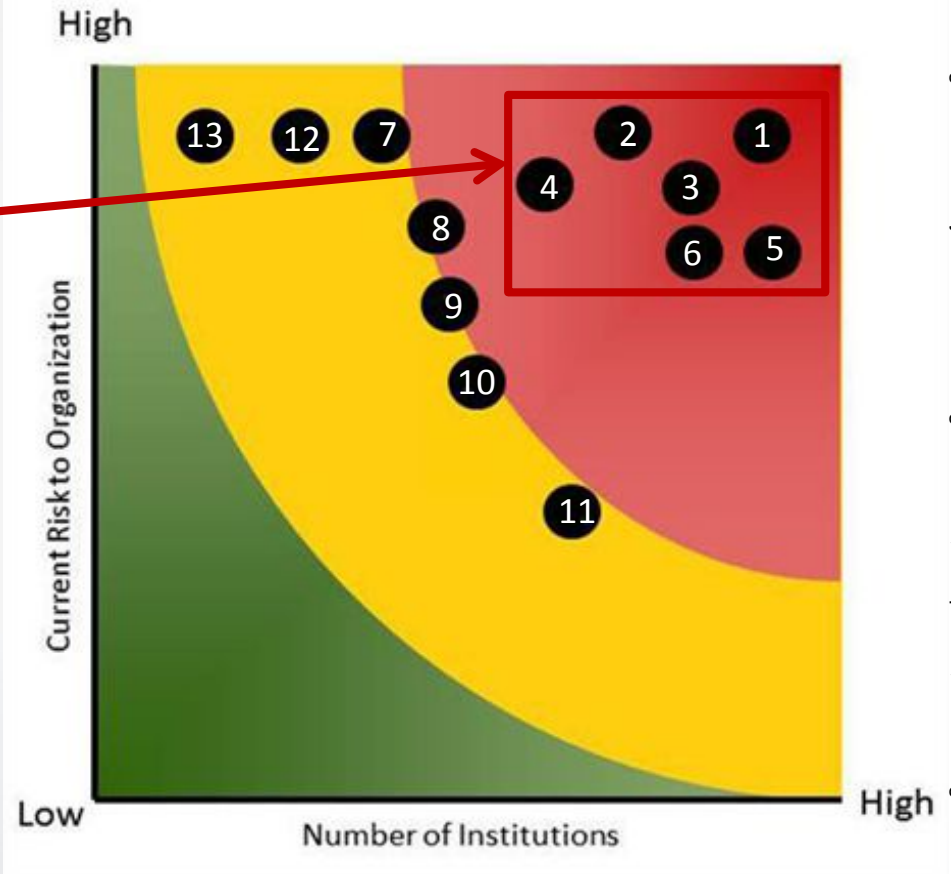
High Risk Area 1: Mobile Device Security

- Completed laptop encryption Systemwide

- Purchased mobile device management software for Systemwide use to enforce iPad, iPhone, and Android encryption and configuration management

- Deployed encrypted thumb drives to U. T. System faculty and staff using/maintaining confidential information

- Launched a Systemwide Network Access Control Working Group led by U. T. San Antonio

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High Risk Area 2: Decentralized IT

- Completed two technology consolidation projects:
  - U. T. Austin centralized 1000+ servers
  - U. T. Health Science Center - San Antonio centralized 177 servers

- Completed centralization of access management at U. T. Southwestern Medical Center

High Risk Area 3: Network Security

- Completed U. T. San Antonio network upgrade

- Started segmentation of critical servers at U. T. Health Science Center - Tyler

- Completed enterprise firewall upgrade at U. T. Pan American

- Completed U. T. Health Science Center - San Antonio wireless network upgrade

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High Risk Area 4: Logging and Monitoring

- Purchased patient privacy monitoring software for U. T. health institutions' use

- Launched a Security Incident and Event Monitoring Working Group led by U. T. Health Science Center - Houston

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High Risk Area 5: Disaster Recovery

- Disaster Recovery for the Arlington Regional Data Center (ARDC)
  - Backup processing for Shared PeopleSoft applications
  - U. T. Arlington failover capabilities

- Disaster Recovery Plan and co-location at a remote location for UTShare and Texas Student Information System
  - Systems are used by multiple institutions

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High Risk Area 6: Inconsistent Risk Assessment

- ## Risk Assessment Consistency:
  - Established a U. T. System Risk Assessment Framework based on the National Institute of Standards and Technology
  - Purchased risk assessment software for Systemwide use
  - Started pilot deployment in five early adopter institutions

- ## Third-Party Risk Assessment:
  - Established a third-party risk assessment process based on U. T. System Risk Management Framework
  - Important for outsourcing and collaborations arrangements

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Project Funding by Risk Area

Risk Area		Amount
Network Security	High Risk Area 3	$5,036,552
Risk Management	High Risk Area 6	$3,453,996
Monitoring and Logging	High Risk Area 4	$3,449,807
Disaster Recovery	High Risk Area 5	$3,301,497
Decentralized IT Migration	High Risk Area 2	$2,681,555
Patient Privacy Monitoring	High Risk Area 4	$2,306,992
Data Loss Prevention	High Risk Area 1	$1,465,029
Mobile Device Security	High Risk Area 1	$1,017,857
Encryption	High Risk Area 1	$1,016,830
Infrastructure Upgrade		$868,183
Physical Security		$787,684
Identity Management		$556,398
Backup		$345,950
Training		$250,000
Business Process Improvement		$98,530
Application Security		$75,990
Vulnerability Scanning		$33,541
Governance		$10,090

Projects Addressing High Risks Affecting Many Institutions

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Funding by Institution

U. T. Arlington
$1,842,885   6.3%

Available Funds
$2,498,520   8.5%

U. T. San Antonio
$2,069,307   7.1%

U. T. Austin
$3,218,032
11.0%

Multi-Institution Projects
$13,828,471
47.3%

Includes:
- Patient Privacy Monitoring
- Mobile Device Security and Management
- IT Resources Logging and Monitoring
- Risk Management
- Training

Common Infrastructures
$2,066,214
7.1%

UTHSC-San Antonio
$1,069,902   3.7%

Institution	Amount	%
U. T. Arlington	$1,842,885	6.3%
U. T. Austin...........................	$3,218,032	11.0%
U. T. Brownsville......................	$54,000	0.2%
U. T. Dallas...............................	$0	0.0%
U. T. El Paso...........................	$277,763	0.9%
U. T. Pan American	$549,204	1.9%
U. T. Permian Basin...................	$80,373	0.3%
U. T. San Antonio	$2,069,307	7.1%
U. T. Tyler.............................	$178,110	0.6%
U. T. Southwestern	$436,438	1.5%
U. T. Medical Branch..............	$156,992	0.5%
U. T. HSC Houston....................	$45,541	0.2%
U. T. HSC San Antonio	$1,069,902	3.7%
U. T. MDACC...........................	$360,000	1.2%
U. T. HSC Tyler.......................	$490,650	1.7%
U. T. System Administration.......	$3,996	0.0%
Multi-Institution Project....	$13,828,471	47.3%
UTIMCO..	$0	0.0%
Common Infrastructures......	$2,066,214	7.1%
Funds Balance.......................	$2,498,520	8.5%

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Funds Allocation to Date

$17,987,463
61%

$8,769,017
30%

$2,498,520
9%

- Funds Earmaked for Approved Projects
- Funds Used in Completed Projects
- Funds Balance
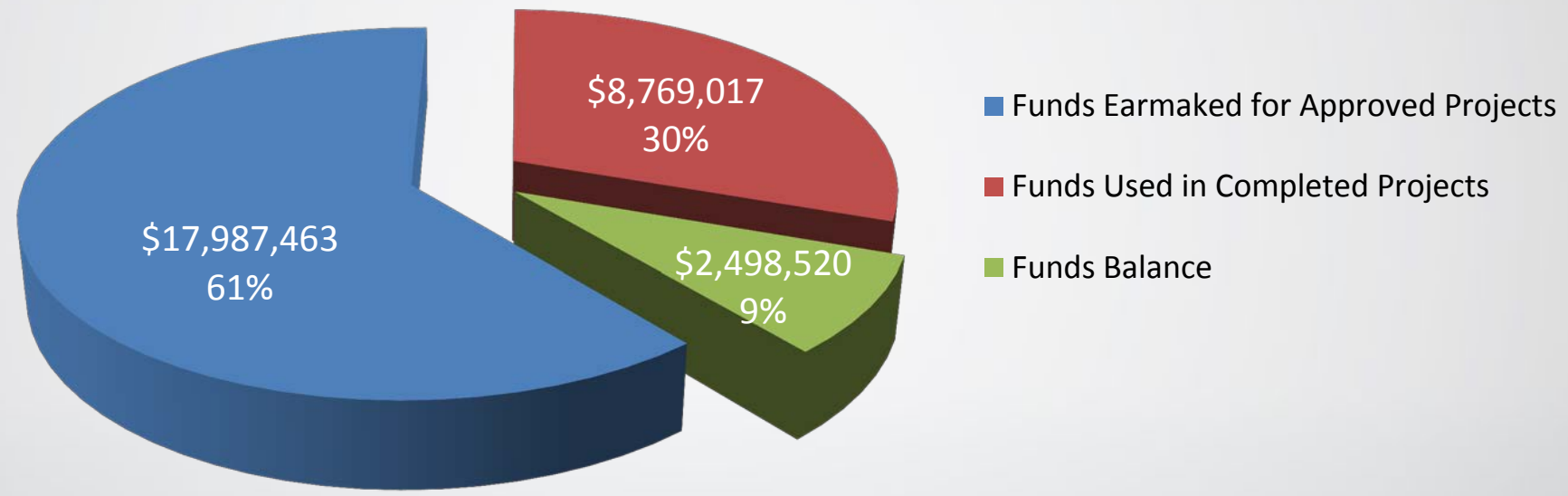
Active and Completed Projects by Activity Area

Activity Area	Active Projects	Completed Projects
Policy Development	14	21
Business Process Improvement	19	16
Network Security	17	9
Risk Management	20	4
Training	15	5
Business Process Analysis	6	12
Physical Security	9	7
Monitoring and Logging	12	3
Mobile Device Security	9	5
Encryption	4	10
Disaster Recovery	11	
Decentralized IT Migration	6	2
Patient Privacy Monitoring	5	
Infrastructure Upgrade	1	4
Identity Management	5	
Access Control	3	1
Software Development Life Cycle	2	1
Data Loss Prevention	3	
Configuration Management	1	2
Application Security	2	1
Vulnerability Scanning	1	1
Governance	1	1
Backup	2	

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Active and Completed Projects by Institution

Institution	Active Projects	Completed Projects
U. T. Arlington	9	9
U. T. Austin	1	4
U. T. Brownsville	6	2
U. T. Dallas	27	10
U. T.El Paso	10	6
U. T. Pan American	10	1
U. T. Permian Basin	6	3
U. T. San Antonio	9	2
U. T. Tyler	6	3
U. T. Southwestern	14	18
U. T. Medical Branch	4	3
U. T. HSC Houston	5	1
U. T. HSC San Antonio	13	7
U. T. MDACC	2	1
U. T. HSC Tyler	8	
U. T. System Administration	14	24
Multi-Institutional Projects	16	8
UTIMCO	0	5
Common Infrastructures	3	3

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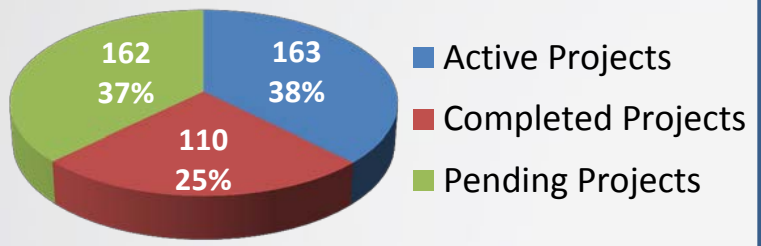*Nine Universities. Six Health Institutions. Unlimited Possibilities.*
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Project Progress Summary

Current Project Status

- Active Projects
- Completed Projects
- Pending Projects

162 — 37%
163 — 38%
110 — 25%

Total Identified Projects: 435

High Priority Project Completion Status

- Low and Medium Priority Projects
- High-Priority Projects

141 — 32%
294 — 68%

High-Priority Projects

- Completed
- Active
- Pending

37 — 12%
93 — 32%
164 — 56%

Projects Underway

	October 2012	October 2013
	151	163
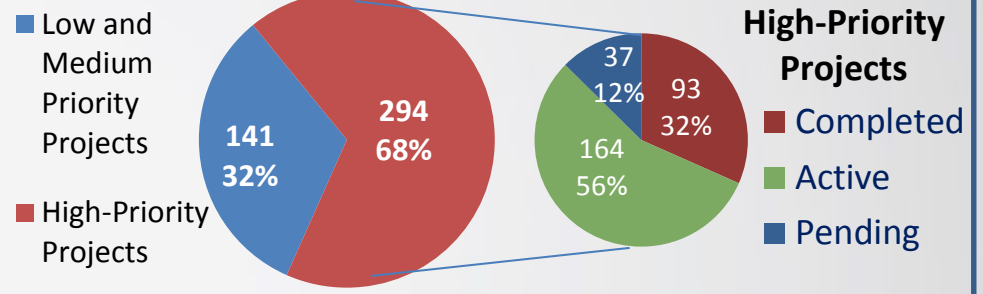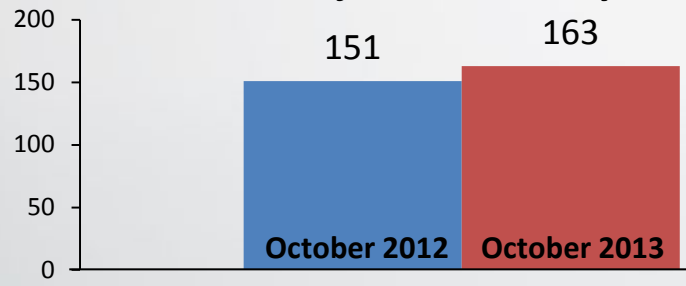
Cumulative Projects Completed

	October 2012	October 2013
	45	110
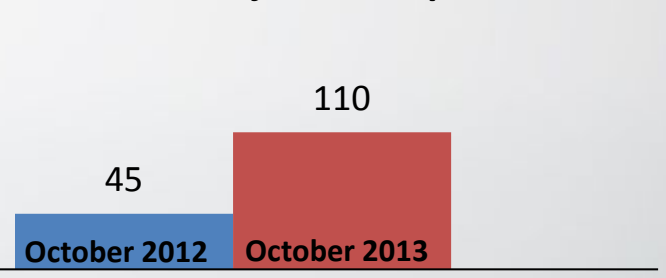
Multi-Institution Projects Completed and In Process

- **Mobile Device Management**
  - ✔ Laptop encryption
  - ✔ Encrypted thumb drives
  - ✔ iPhones, iPads, and Androids
  - – Network access control

- **Risk Management**
  - – IT risk assessments
  - – Third-party assessments

- **Training**
  - – Technical training
  - ✔ User training

- **Logging and Monitoring**
  - ✔ Patient privacy
  - ✔ Data discovery
  - – Security events

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Common Infrastructures

- Hired an Information Security Officer for Common Use Information Resources
  - Work with Resource Manager
  - Identify control gaps
  - Define compliance strategies
  - Establish program metrics

- Deployed U. T. Research Cyber Infrastructure Perimeter Security Devices

- Completed Information Security Assessment for Texas Advanced Computing Center and ARDC
  - Are they electronic protected health information-ready?

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U. T. System Security Profile is Maturing

- Improved Security
  - Laptop encryption minimizes the number of reportable security breaches
  - Mobile device management provides security standards and secure configurations for mobile devices connecting to institutional networks

- Alignment
  - Projects support the Framework for Advancing Excellence
  - U. T. System Risk Management Framework provides a common methodology to assess, report, and aggregate information security risk across all institutions

- Cultural Shift
  - Executive management is considering and, in cases, requiring centralization of critical assets
  - Institutions are increasingly considering collaboration and shared strategies to address security

- Efficiency
  - Systemwide purchasing and leveraging the U. T. System Supply Alliance generates considerable savings to the U. T. System

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