

Cybersecurity at Texas Tech

Vince Fell | Doug Fox | Kay Rhodes | Jerry Rodriguez | Sam Segran



Agenda

- Information Resources, IT Governance, Collaborations
 - Kay Rhodes
- Cybersecurity Landscape
 - Sam Segran
- Research and Academic Institutions
 - Sam Segran
 - Doug Fox
- Health Related Institutions
 - Vince Fell
 - Jerry Rodriguez
- Summary
 - Kay Rhodes

Information Resources, IT Governance, Collaborations

Kay Rhodes

IT Organization and Governance

- CIO Council
 - Collaboration
 - Project coordination
 - Policy coordination
 - Sharing best practices
- Network Infrastructure and Security Responsibilities
- Risk Assessments

Cybersecurity Landscape

Sam Segran

Computer Virus

Worm

Spyware

Trojan

Keylogger

Ransomware

Internet of Things (IoT)

Quick Definitions

TEXAS TECH UNIVERSITY SYSTEM

Cybercrime Evolution

2017 Notable Breaches

Malwareinfected POS stole CC info @ 2,250 restaurants

Hackers access CUSTOMER EMAIL DATABASE – Flooded users with PHISHING EMAILS

Docu Sign

143 MILLION US consumers affected

EQUIFAX

Source: https://www.checkmarx.com/2017/06/05/may-2017-top-hacks-breaches-infographic/

2017 Notable Breaches - Education

- **KSU Center For Election System**
- 7.5 million voter records breached

Edmodo

Quantity: 1

Online education platform

Data for sale on dark web

Edmodo Breach Database Dump (77 million of accounts

USD 1.087.79 (including 0.75 transaction fee)

0.5838

2018 Notable Breaches Thus Far

Jason's deli[®]

Malware-infected POS stole CC info – at least 164 stores (68 in Texas) and 2 Million payment cards compromised PII of 247,000+ current and former employees found in possession of former DHS employee during ongoing criminal investigation

οκι ΔηοΜ

Nearly 280,000 Medicaid patient records breached @ Center For Health Sciences

Number Of Records Per Data Type Stolen

US Average - \$225

Healthcare - \$380

Average total cost per incident – \$10,834,560 Additional costs - HIPAA violation fines \$100 - \$1.5 million, notification costs \$200 - \$1,000

Financial - \$336

Education - \$245

Average total cost per incident - \$6,985,440

THE PART

Technology - \$251

Research - \$123

Cost Per Stolen Record (sampling)

Source: Ponemon Institute 2017 Cost Of Data Breach Study

TEXAS TECH UNIVERSITY SYSTEM

Source: Symantec Internet Security Threat Report – April 2016

TEXAS TECH UNIVERSITY SYSTEM

Ransomware

Source: Symantec Internet Security Threat Report – April 2017

IoT Hijacking

Hackers took down D.C.'s CCTV system for a 48-hour span leading up to Trump's Inauguration, demanded ransom

By Shepard Ambellas - January 31, 2017

Officials and others unsure of what may have taken place during a massive citywide CCTV outage

TEXAS TECH UNIVERSITY SYSTEM[®]

Source: https://www.intel.com/content/www/us/en/internet-of-things/infographics/guide-to-iot.html

20

Cybersecurity Essentials At Texas Tech Institutions

Compliance With Federal And State Standards

Initiatives @ TTU

Sam Segran

IMPLEMENTED

IN PROGRESS

Multi-Factor Authentication

Weekly Vulnerability Scans

PHI Data Protection (arrangement with TTUHSC)

Mobile Device Checkout

Security Analytics Software

Endpoint Systems Management

Training For Faculty, Staff, And Students

Training For IT Staff

Encryption

Federal Data Security Requirements For Research

Some Major Cybersecurity Initiatives @ TTU

Ongoing Security Awareness and Training Program

Mobile Device Controls

Timely Security Updates And Patches

Multi-factor Authentication

Encryption of Laptops, Desktops, And Mobile Devices

Enhanced Risk Management Processes through Analytics

Email Security Enhancements

IN PROGRESS

IMPLEMENTED

Some Major Cybersecurity Initiatives @ ASU

IMPLEMENTED

BELLING VESSION (DEED)

Web Security (Proxy Servers)

Vulnerability Management Program

Endpoint Security

Encryption Of User Devices And Media

Secure Cloud Storage - BOX

Secure Configurations – Desktops And Laptops

Email Security – Sender Policy Framework

NIST Policy And Program Development

Network Segmentation

Privilege Account Management

Desktop Encryption

Secure Configurations - Servers

IN PROGRESS

Some Major Cybersecurity Initiatives @ TTUHSC

Initiatives @ TTUHSC El Paso

Jerry Rodriguez

H

L. FOSTER

MEDICINE

SCHOOL OF

Encryption Of Laptops, Desktops, Mobile Devices (Personal and Institutional)

Policies And Information Security Program Architecture

Network Access For Physical Devices (Personal and Institutional)

Improved Administrative Rights Control

Domain Migration Preparation

IN PROGRESS

Some Major Cybersecurity Initiatives @ TTUHSC El Paso

Summary

Kay Rhodes

Summary

- Cybersecurity Assessment
 - TTUS Risk Management Office and CIOs
 - Marsh and Cyber Self-Assessment
- Internal Risks
 - Decentralized IT
 - Maintaining right resources
- Recurring Training
- Executive Leadership Support

Questions?

Thank you!