CSBS Ransomware Self-Assessment Tool, Version 2.0
This meeting is being recorded. The recording and deck will be provided in a follow-up email.

To minimize background noise, all attendees are on mute.

Questions will be taken via the WebEx Chat function. Send chats to all panelists.

Q&A session at the end of the presentation.
Presentation Outline

◊ Today’s Ransomware Threat Environment
◊ Drivers for Version 2.0 / Lessons Learned Studies
◊ Overview of Version 2.0
◊ Question & Answer
Today’s Speakers

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Introduction

Commissioner Charles Cooper
Texas Department of Banking
Today’s Ransomware Threat Environment

- Ransomware remains the most visible cyber threat
- Threats are enhanced due to ongoing geopolitical conflicts
- According to Chainalysis, victims have paid ransomware groups $449.1 million in the first six months of 2023. At the current pace, the total figure for 2023 could hit $898.6 million.
- Cyber criminal groups are adopting effective new tactics
  - Reliance on various extortion tactics to maximize impact
  - Foregoing encryption to focus on data theft

Sources:
- Splunk: The State of Security 2023
- Ransomware Attacks Are on the Rise, Again | WIRED
- IBM’s 2023 Cost of a Data Breach Report
What Does This Mean for the Financial Sector?

• Technological evolution = more potential attack surfaces

• Ultimately, every organization is at risk

• For the unprepared, the consequences can be severe
  • Damage to brand reputation
  • Regulatory consequences
  • Impacts to operations
  • Failure of the institution

• Ransomware can present an existential threat to the institution
Drivers for Version 2.0

- Changes needed to address changing threat environment and bad actor tactics
  - Increased geopolitical threat environment
  - Double and triple extortion techniques
  - Data exfiltration (without encryption)
- Changes needed to address changing bank environments and controls
  - Increased emphasis on multi-factor authentication (MFA)
  - More scrutiny on other controls, such as cloud security, incident response planning, vendor access to systems, and employee training and awareness
FDIC Ransomware Horizontal Review

**Background**

- Searched FDIC and other agency databases for ransomware attacks over a two-year period (June 2019-May 2021).
- Identified 36 ransomware attacks of interest at FDIC-supervised institutions.
- The FDIC reviewed forensic reports from, and conducted interviews with, attacked financial institutions.
# What Controls Make a Difference In Defense?

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<th>Logging</th>
<th>Operating System Hardening</th>
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<td>Multifactor Authentication</td>
<td>Preventing Unauthorized Executables and Macros (including PowerShell)</td>
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<td>Backup Isolation and Viability</td>
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Resulting Supervisory Adjustments
Lessons Learned From Ransomware Attacks

• Study was conducted of victims of ransomware attacks
• Purpose of the study was to guide needed updates to the R-SAT
• The study covered the four-year period between January 1, 2019, and December 31, 2022
  • Multiple state banking departments participated in the study
  • A written report is available for review
Lessons Learned From Ransomware Attacks

• Key findings from the study:
  • Most victims had not used the R-SAT to guide their risk mitigation, but ALL began using it fully after the incident
  • Multi-factor authentication (MFA) was implemented by all victims after the incident, if they weren’t using it
  • Monitoring “hyper-local”, as well as traditional social media, is important to manage misinformation and maintain consumer confidence
Lessons Learned From Ransomware Attacks

• Additional observations from the study:
  • Expanding cloud usage requires greater awareness of where data is located, as well as which services are cloud-based
  • Ransomware tactics are changing and now include double and triple extortion techniques, sometimes with accompanying DDoS attacks
  • Controversial practices: Paying an extortion fee for the promise of silence from a criminal emboldens them to continue targeting the banking industry
R-SAT Version 2.0: Overview

• New version has the same general look and format as Version 1.0
• Still follows the NIST Framework
  • Identify
  • Protect
  • Detect
  • Respond
  • Recover
• Expanded from 16 questions to 20 questions
R-SAT Version 2.0: Notable Changes

- Increased emphasis on multi-factor authentication (MFA)
  - Now an expanded, stand-alone question
  - New sub-question emphasizing whether the institution relies on stronger application-based or phishing-resistant methods
  - More options to identify where and how MFA is applied
  - New sub-question identifying areas where MFA implementation is not planned or has been deferred
R-SAT Version 2.0: Notable Changes

- Identification and management awareness of any data, including cloud-based data, housed in locations outside of the US (new question)
  - Potentially subject to different privacy regulations of other countries
  - GDPR, PIPEDA, etc.
- Increased emphasis and detail on employee awareness and security training
  - Types of training offered
  - Frequency of training offerings (new sub-question)
  - Phishing test exercises and use of testing results (new question)
  - Employee briefings on emerging ransomware threats (new question)
R-SAT Version 2.0: Notable Changes

- Increased clarity on identifying systems or activities processed or performed internally, outsourced to a third party, or a combination of the two
- Identification of systems or activities that are based in a cloud environment
- Review of cyber framework gap analysis (new sub-question)
- Checklist of services potentially available through cyber insurance policies
- Narrative requesting identification of vendors that do not have ransomware-related controls in place
- Procedures to validate the sterility of data backups prior to restoration to prevent reinfection.
R-SAT Version 2.0: Notable Changes

• Identification of any ransomware threats and risks identified in risk assessments that have not been appropriately remediated or mitigated to an acceptable risk level (new sub-question)

• Identification of new preventative controls
  • Patch management
  • Controls governing removable media use
  • Controls ensuring changing of default hardware and software settings
  • Implementation of jump box (bastion host) or administrative VLAN
  • Procedures for resetting or replacing user authentication credentials
R-SAT Version 2.0: Notable Changes

- Identification of **new or reworded** Incident Response Plan considerations
  - Alternative strategies for connecting to third parties
  - Escalation procedures for activating BCP/DR plans
  - Social media monitoring for public awareness
  - Notification of state and federal regulators (in accordance with regulatory requirements)
  - Immediate notification of federal law enforcement
  - Threat hunting
  - “Out-of-band” communications procedures
  - Board discussions of ransom payments prior to payment
R-SAT Version 2.0: Notable Changes

• Considerations for third parties engaged in the event of an attack
  • Identification of any third parties to be engaged (new question)
  • Do prearranged service contracts or, at a minimum, contact information exist so that legal and contract issues do not delay the institution’s response?
  • Does the institution or does the institution require third parties, including insurance companies, to promptly engage with law enforcement (new sub-question)
  • Pre-approval of third parties by the bank’s cyber insurance provider (new sub-question)
Banker’s Perspective

Christopher J. Furlow
President & CEO
Texas Bankers Association
Thanks for listening!

You’ll get the presentation via email

And the recording too!
Questions?