TEXAS RE

Ensuring electric reliability for Texans

Cybersecurity Threats

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Upcoming Texas RE Events

August 12, 2025

Modernization of Standards Processes and Procedures Task Force Webinar

August 19, 2025

CIP-003-8

August 26, 2025

Data Breach Response

Upcoming Texas RE Events

September 17, 2025

Q3 MRC and Board Meetings

October 1, 2025

Winter Weatherization Workshop

November 5, 2025

Fall Standards, Security, & Reliability Workshop

Upcoming ERO Enterprise Events

Date	Event
August 6	Protection System Workshop (RF)
August 7	Human Performance Workshop (RF)
August 12-14	Power System and Security Conference (WECC)
August 13	Inverter-Based Resource Webinar (MRO)

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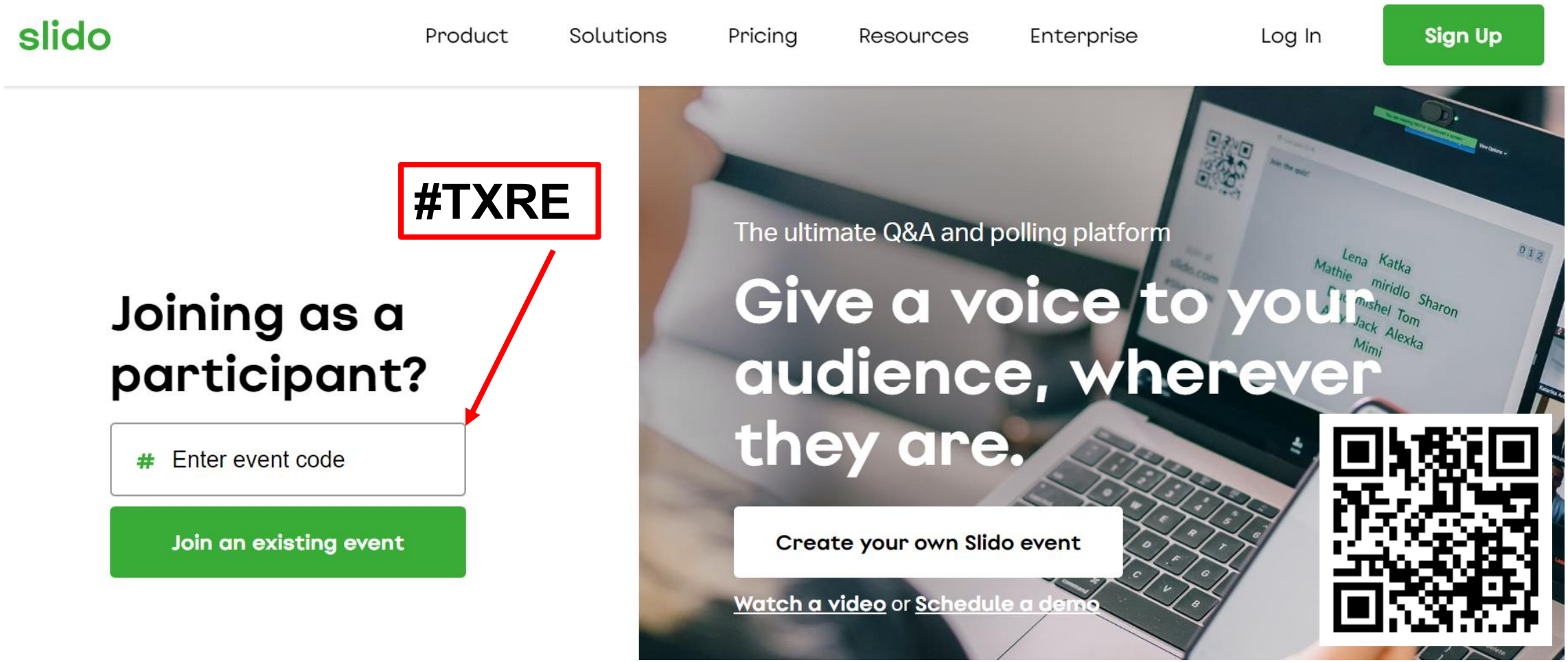
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Cybersecurity Threats—Agenda

Review the Last Year(ish) of Cyber Incidents/Events

- Typhoon Chain
- Crowdstrike
- DDoS Attacks
- North Korean Remote Worker Scheme

Social Engineering

- Methods
- AI Risks
- Defenses

Cybersecurity Threats—Typhoon Chain Threat

Volt Typhoon

- Critical Infrastructure
- Persistence and Stealth

Salt Typhoon

- Communications Infrastructure

Silk Typhoon

- Supply Chain

Cybersecurity Threats—Recent Incidents

Crowdstrike Event

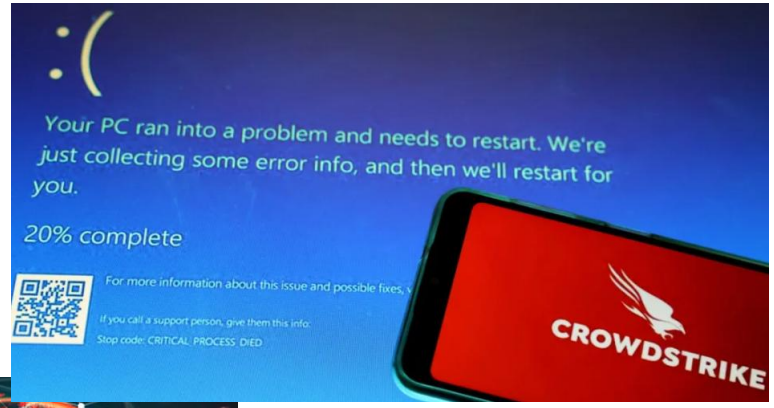
- “Channel File 291” Incident
- Windows Resiliency Initiative

DDoS Attacks

- 358% Increase in Year-Over-Year Attacks
- Mirai Malware

North Korean Remote Worker Scheme

- Laptop Farms



Cybersecurity Threats—Social Engineering

Goals

- Money
- Information
- Virtual and Physical Access

Vectors

- Fear
- Trust
- Lack of Awareness
- Conflict Avoidance

New Threat

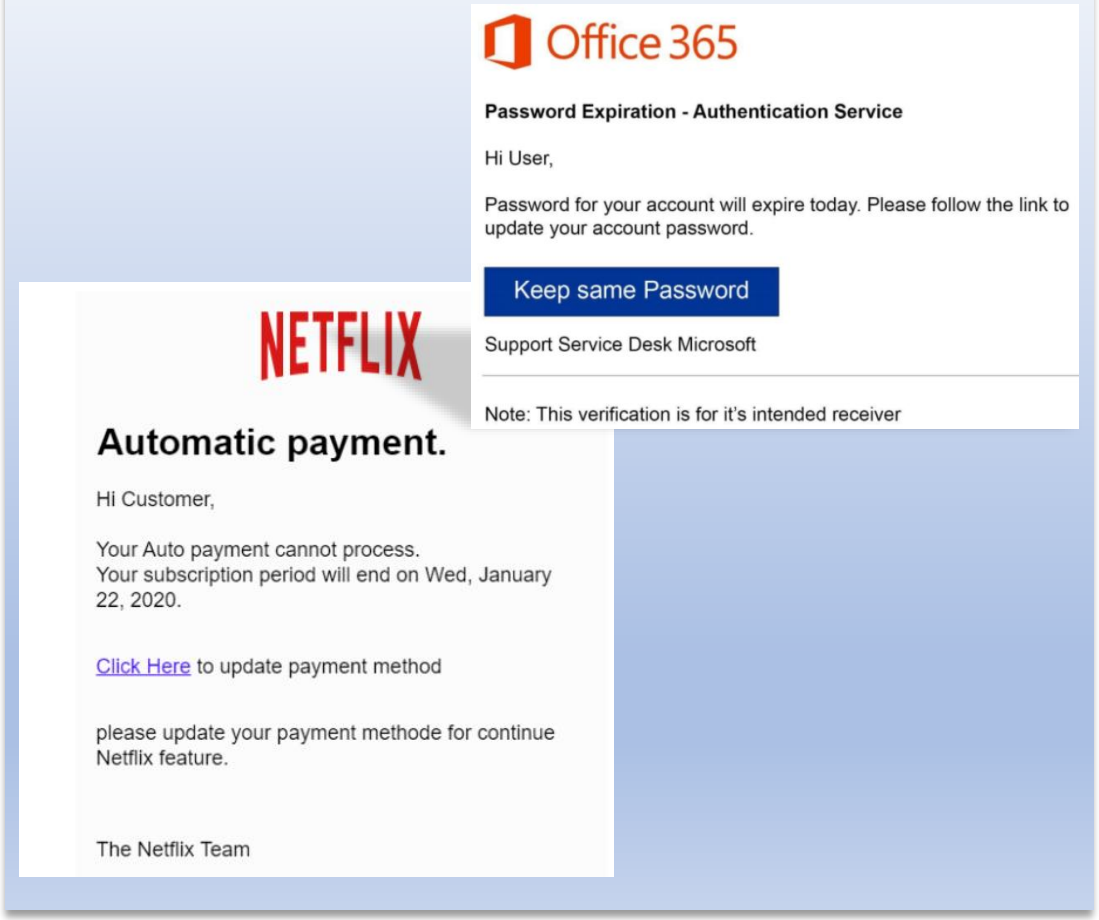
- AI

Social Engineering Tactics

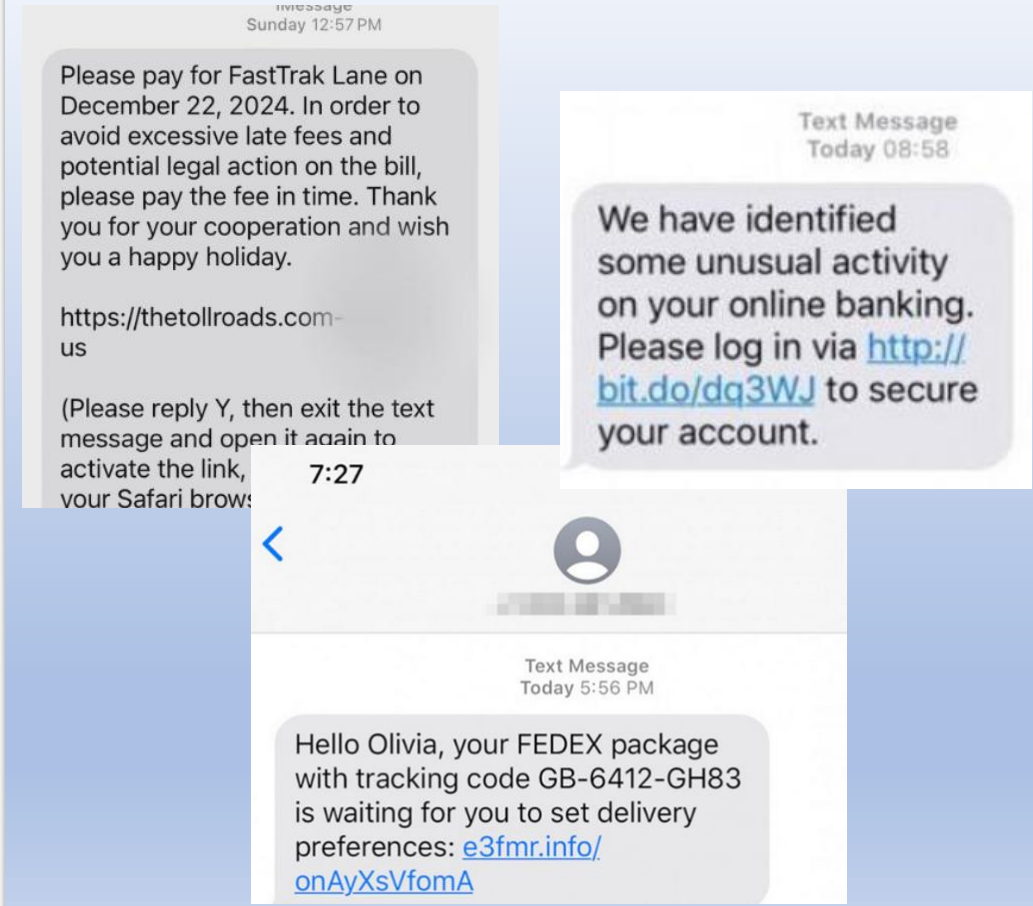
- Phishing
- Spear Phishing/Whaling
- Smishing (SMS Phishing)
- Vishing (Voice Phishing)
- Business Email Compromise (BEC)
- Pretexting
- Baiting
- Tailgating/Piggybacking

Social Engineering—Examples

Phishing



Smishing



Social Engineering—AI Powered

How is AI Altering the Social Engineering Environment?

- AI speeds and scales social engineering
- Specialized AI models (WormGPT, FraudGPT) can generate well-written, believable, and tailored phishing emails
  - *One study showed a 54% increase in clicked emails*
- Volume
  - Thousands of emails can be created and sent in minutes
- Personalization
  - Public data, social media
- Realism
  - Deepfakes & cloned voices
- Adaptability
  - Real-time chatbots

Social Engineering—AI Phishing Scenario

Reconnaissance

AI algorithms scour publicly available information like social media profiles, corporate websites, and news articles to gather details about individuals and organizations.

Content Generation

Using this information, AI-powered text generation tools create highly customized and believable phishing emails. They can mimic the writing style and tone of trusted contacts, incorporate references to recent activities or projects, and use accurate terminology and formatting, making the emails appear legitimate.

Attack and Automate

Send emails and adjust for success—automated A/B testing can be used to optimize subject lines, email structures, and content variations for maximum impact.

Social Engineering—AI Deepfake Voice Phishing

- **Vishing attacks surged almost 500% in 2024**
- **Voices can be cloned with 3-5 minutes of sample audio**
- **Mostly used for fraud but expanding to political and other purposes**
- **AI-powered tools generate personalized and believable audio**

AI-generated voice messages posing as Secretary of State Marco Rubio

- Two voicemails and text message sent over the Signal app
- Messages sent to U.S. and foreign officials

$25M loss to deep fake scheme

- Finance member joined a video conference call with people he believed to be the chief finance officer and other employees
- Was convinced to wire money to fraudsters

Florida mother loses $15K to deep fake voice call

- Received phone call from a number that looked like her daughter's
- Voice that she believed was her daughter claiming to be in jail and needing money for bail

Social Engineering—Workplace Defenses

- **Training**
  - Awareness training, phishing tests, simulated attempts
- **Multifactor Authentication**
- **Conditional Access Policies**
- **SPF, DKIM, DMARC**
  - Check for sender's address, spoofed links, suspicious attachment
- **Finance Change Control**
- **Social Media Policies**
- **Application Control, Attack Surface Reduction Policies**
- **Deepfake Detection Tools**
- **Zero Trust**

Social Engineering—Personal Defenses

Be Skeptical!

If Urgency is Implied, SLOW DOWN

Password Control

- Password manager
- Enable MFA anywhere you can

Keep Devices Patched

Limit What You Share Online

Freeze Your Credit

Socialize Awareness

Social Engineering—Key Takeaways

AI Speeds and Scales Social Engineering

- Right now, not containable
- Voice/video deepfakes are already causing multi-million-dollar frauds

Multifaceted Approach to Defense

- Be proactive
- Vigilance
- Advanced technological defenses

Only You

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