Memo

To: Pastors and Staff of the Diocese

From: Philip DeLeon, Chief Information Officer

Date: December 16, 2024

Re: Social Engineering, Email Phishing, and Text Message Smishing and Scams

Christmas greetings on behalf of the Information Technology Unit! Social engineered attacks such as email phishing, text message smishing, and scams are cropping up in much greater frequency as cybercriminals take advantage of the holiday gift buying season.

Cybercriminals leverage the opportunity to collect personal and corporate information by sending emails and texts luring unsuspecting victims to click on web links of nefarious websites and/or attachments. The attachments (such as PDF or Word documents) are frequently embedded with malware. The documents or links may also ask for your network credentials (such as a login ID and password) to be sold on the black market with the intent later authenticate to your account. DON'T BE TRICKED INTO DIVULGING YOUR PASSWORD, ACCOUNT INFO, or PERSONAL INFORMATION!

Victims also receive emails and text messages from scammers who impersonate an individual or a corporate identity with whom you are familiar. The scam uses a sense of urgency to lure the individual to respond immediately by email or smartphone texting. In some cases, the scammer is simply attempting to scam the victim out of money (like a gift card) or covertly collect personal and/or financial information for later use. The scammer uses a familiar looking name with a phony email address or an email address that is very similar and might even include a photograph.

The Diocese frequently receives reports that texts and emails have been received from a scammer impersonating Bishop Soto and pastors of the Diocese. The imposter has most likely been cleverly collecting email addresses and mobile phone numbers from resources like parish bulletins and bulk emails. BE SKEPTICAL AND SCRUTINIZE THE EMAIL ADDRESSES AND PHONE NUMBERS FROM UNEXPECTED EMAIL AND TEXT MESSAGES. If you are not certain the email or text request is authentic, call the person or individual directly using a phone number you know is correct. But, do not respond or engage with the imposter.

I have attached the most recent copy of **OUCH!** authored by the SANS Institute regarding current methods of social engineered attacks. If you have any questions, don't hesitate to contact the Diocese by sending an email to the Chief Information Officer, Philip DeLeon, at pdeleon@scd.org or calling (916) 733-0299. Finally, if you have been scammed or compromised via the internet, you may file a complaint with the FBI's Internet Crime Complaint Center at https://bec.ic3.gov.

Unveiling the Shadows: How Cyber Criminals Steal Your Passwords

A Digital Nightmare: Lisa's Unwanted Exposure

Lisa, a graphic designer with a knack for creativity, lived much of her life online. She managed her banking, shopping, and social interactions through various apps and websites. One day, she noticed some strange withdrawals from her bank account — items she'd never bought from stores she'd never visited. Her social media accounts then began posting spam messages promoting odd products and services, and friends reported receiving unusual emails from her.

Panic set in as Lisa realized she had lost control over her digital identity. Her personal photos were leaked, and private conversations were exposed. Clients began to question her reliability, and her reputation took a hit. After consulting with cybersecurity experts, Lisa discovered that her passwords had been compromised. Cybercriminals had gained access to her most sensitive accounts, unraveling her digital world piece by piece. The question lingered: How did this happen?

The Underhanded Tactics of Cybercriminals: Five Common Methods

Cyber threat actors employ a variety of techniques to harvest passwords. Here are five common ways they could obtain yours like they did Lisa's:

1. Social Engineering Attacks

Social Engineering is where attackers masquerade as someone or something you know or trust, and they trick you into doing something you should not do. They send emails or messages that appear legitimate, often creating a strong sense of urgency, fear, or curiosity.

How It Happened: Lisa received an email that looked like it was from her bank, complete with official logos and branding. The email claimed there was suspicious activity on her account and urged her to click a link to verify her identity. The link led to a fake website that captured her login credentials when she entered them.

Malware

Malware is malicious software designed to infect computers. Once infected, cyber criminals can do whatever they want. Keyloggers (sometimes called *information stealers*) are a type of malware that record every keystroke made on a device, including your login, passwords, and other sensitive data.

How It Happened: Lisa downloaded what she thought was a legitimate font package for her design work. Hidden within was a keylogger that installed itself on her computer. Over time, it recorded her login details for various accounts and sent them back to the attacker.



3. Brute Force Attacks

In brute force attacks, cybercriminals use automated tools to try numerous password combinations until they guess the correct one. Weak passwords are especially vulnerable to this method.

How It Happened: Lisa used simple passwords like "lisa2020" for many of her accounts. Attackers used software that systematically tried common passwords and easily cracked her accounts.

4. Data Breaches

When a website or service gets hacked, it can affect everyone's accounts that may be stored on the server. If someone uses the same password for multiple accounts, when that password is compromised for one account, then that password can be used to access the victim's other accounts as well.

How It Happened: A popular social media platform Lisa used experienced a data breach. Since she used the same password elsewhere, attackers accessed her other accounts using the leaked credentials.

5. Purchased Credentials

Cyber criminals can simply buy your passwords on the internet, often on the Dark Web. Certain cyber criminals specialize in stealing victims' passwords, using any of the methods we discussed so far. They then store and sell the stolen passwords to other cyber criminals.

How It Happened: A cybercriminal decided they wanted to make as much money as possible over the weekend, so they went to the Dark Web and purchased over 100,000 compromised accounts with their full passwords. One of Lisa's accounts was on that list.

Three Key Steps You Can Take

Fortunately, by taking three simple steps, you can go a long way to protecting your accounts and online, digital life.

- 1. Use a long, unique password for each of your accounts. We recommend passphrases, which are long passwords made up of multiple words.
- 2. Use a password manager to securely store and manage all those passwords for you.
- 3. Enable Multi-Factor Authentication (MFA) whenever possible for your most important online accounts.

Guest Editor

Lekshmi Nair is a senior Cybersecurity leader with 22 years of rich experience in Information Security Consulting and Cybersecurity Strategy. She is currently a Sr. Director of Application Security Consulting with BlackDuck Software. She is the founder and President of WiCyS India.



Resources

Phantom Voices: Defend Against Voice Cloning Attacks: https://www.sans.org/newsletters/ouch/phantom-voices-defend-against-voice-cloning-attacks/

Text Messaging Attacks: A Smishing Saga: https://www.sans.org/newsletters/ouch/text-messaging-attacks-smishing-saga/

Top Three Ways Cyber Attackers Target You: https://www.sans.org/newsletters/ouch/top-ways-attackers-target-you/

The Power of Passphrases: https://www.sans.org/newsletters/ouch/power-passphrase/

The Power of Password Managers: https://www.sans.org/newsletters/ouch/power-password-managers/

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