

# First Steps to Securing Your Business






# Why is Cybersecurity Important for Small Businesses

- Small business employees experience 350% more social engineering attacks than enterprises
- 40% of attacked small businesses lost critical data
- 1 in 3 small businesses go out of business in 6 months after a breach
- Only 26% of small business owners have cyberattack insurance
- But... only 4% of small business owners believe cybersecurity is their #1 risk

# Basics

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- What do you need to protect?
    - Critical Information
      - Do you know what you have?
      - What are assets?
      - Information Classification: Public, Internal, Confidential, Restricted, Private, Critical, Regulatory

# Protecting your Data

- User training
- Update all hardware devices
- Externally secure your data
- Require strong passwords
  - Password Managers
- Require MFA for ALL applications
- Encrypt all data
- Limit logon attempts

# TIME IT TAKES A HACKER TO BRUTE FORCE YOUR PASSWORD

Number of Characters	Numbers Only	Lowercase Letters	Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters, Symbols
4	Instantly	Instantly	Instantly	Instantly	Instantly
5	Instantly	Instantly	Instantly	Instantly	Instantly
6	Instantly	Instantly	Instantly	1 sec	5 secs
7	Instantly	Instantly	25 secs	1 min	6 mins
8	Instantly	5 secs	22 mins	1 hour	8 hours
9	Instantly	2 mins	19 hours	3 days	3 weeks
10	Instantly	58 mins	1 month	7 months	5 years
11	2 secs	1 day	5 years	41 years	400 years
12	25 secs	3 weeks	300 years	2k years	34k years
13	4 mins	1 year	16k years	100k years	2m years
14	41 mins	51 years	800k years	9m years	200m years
15	6 hours	1k years	43m years	600m years	15 bn years
16	2 days	34k years	2bn years	37bn years	1tn years
17	4 weeks	800k years	100bn years	2tn years	93tn years
18	9 months	23m years	6tn years	100 tn years	7qd years

2020

# USING CHATGPT HARDWARE TO BRUTE FORCE YOUR PASSWORD IN 2023

Number of Characters	Numbers Only	Lowercase Letters	Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters, Symbols
4	Instantly	Instantly	Instantly	Instantly	Instantly
5	Instantly	Instantly	Instantly	Instantly	Instantly
6	Instantly	Instantly	Instantly	Instantly	Instantly
7	Instantly	Instantly	Instantly	Instantly	Instantly
8	Instantly	Instantly	Instantly	Instantly	1 secs
9	Instantly	Instantly	4 secs	21 secs	1 mins
10	Instantly	Instantly	4 mins	22 mins	1 hours
11	Instantly	6 secs	3 hours	22 hours	4 days
12	Instantly	2 mins	7 days	2 months	8 months
13	Instantly	1 hours	12 months	10 years	47 years
14	Instantly	1 days	52 years	608 years	3k years
15	2 secs	4 weeks	2k years	37k years	232k years
16	15 secs	2 years	140k years	2m years	16m years
17	3 mins	56 years	7m years	144m years	1bn years
18	26 mins	1k years	378m years	8bn years	79bn years

# Types of Attacks

- Malware
- Ransomware
- Phishing
- Man-in-the-Middle
- Denial of Service



# Protect your Data

- Trust nothing, verify everything
- Restrict USB usage
- Anti-virus/Anti-malware software
- Use a VPN whenever possible
- Backup all data and devices to an external source



# User Training

- Not just a once-a-year training video
- Proper handling of data
- Recognize both email and SMS phishing

# Governance

- What laws does the business need to comply with?
  - Based on Industry
  - HIPAA, FERPA, GLBA, GDPR, CMMC
- Based on business activities
  - Human resources, patients, clients, credit card transactions



# Updates

- Make sure your devices and all software and apps are set to auto-update and install
- Verify all devices have current updates



# Protecting your Wireless Network

- Secure your router by changing the administrator username and password
- Use WPA2 or WPA3 encryption for all communication
- Secure your home network the same way you secure your business
  - Create a different SSID for home and work.



# Mobile Device Security

- App permissions
- Untrusted apps
- “Free wifi”
- Auto lock
- Charging stations



# The Internet of Things (IoT)

- Brainstorm all the devices in your life that connect to the Internet
  - At home
  - At your business



# Questions to Ask Yourself

1. What kind of data do you have in your business?
2. How is that data handled and protected?
3. Who has access to that data and under what circumstances?
4. Is your data stored on-site or with a vendor?
5. Do you collect data from your website?
6. Who hosts your website?
7. Have you read the privacy policy for any vendor used for cloud-based solutions? Do you know what they protect and what they do not?
8. How do you back up your data? Where is it stored?
9. How do you train your employees to ensure they are not prey to social engineering attacks?

# Thank you

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For Additional Resources:

<https://sbdc-techsource.org/cyber/about-cyber-cya/>

