

People don't come naturally to passwords, and resist making passwords actually effective. Adopting good password practices can help your organization not fall victim to criminals taking your money.

## 11 WAYS TO IMPROVE PASSWORD PRACTICES

- **1 Passwords need to be unique to each account** (i.e. the password at Microsoft is not the same as at Google so one criminal breach doesn't expose more than one account)
- 2 Passwords cannot be reused (i.e. don't recycle no-longer-used passwords those might have been breached)
- **3 Passwords cannot be made of letter/number/symbol substitutions** (i.e. shell written as 5he!! criminals' software now guesses these substitutions easily)
- 4 Passwords cannot be based on user names or email addresses (too easy for software to quess)
- **5 Passwords are not considered new when a password is slightly changed** (i.e. like adding a 1 or! criminals' software again)
- **6 Passwords must be of a certain length** (to keep ahead of password-cracking programs, 2024 advice is at least fifteen characters)
- 7 Passwords should be stored in either
  - a strong-password-protected and encrypted digital way (like in a password manager) or in a secure physical way like in a locked file cabinet
- 8 Password sharing is not a good idea if necessary limit it to encrypted methods (like in an encrypted PDF)
- 9 Consider password manager software (like LastPass, BitWarden, 1Password, etc.) that creates and stores strong, complex passwords (some products allow admin oversight of employee passwords)
- **10 Check if your email address has been breached** at haveibeenpwned.com or through dark web monitoring that can watch if any email address from your domain has been in a breach
- 11 Turn on multifactor authentication (MFA) whenever possible (MFA makes your employees confirm their identity in more than one way [like with both an email address and an authenticator app on a phone] to cut the risks of exposed passwords)

## Online resources to help generate good passwords:

Steve Gibson's password generator is at grc.com/passwords.htm Univ. of Illinois has a password-strength checker at uic.edu/apps/strong-password

