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National Cyber Security Awareness Month

“Creating a Culture of Cyber Security at Work”

Webinar

The New Jersey Cybersecurity and Communications Integration Cell (NJCCIC) is the State's one-stop shop for cybersecurity information sharing, threat analysis, and incident reporting. Located at the Regional Operations Intelligence Center (ROIC), the NJCCIC brings together analysts and engineers to promote statewide awareness of local cyber threats and widespread adoption of best practices.



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Why is this important?

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Cybersecurity is a **people problem.**

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Cybersecurity is no longer just the IT department's responsibility.

It is everyone's responsibility.

- Board of directors
- C-Suite
- Management
- Full-time
- Part-time/temp
- Contractors/Third-parties
- Interns
- Anyone w/ network access



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Common pitfalls

- Click a malicious link/attachment, close as fast as possible, don't tell anyone
- Notification to install update – click 'remind me later' – 3 weeks go by....
- Weak passwords, used across multiple accounts
- See a post from a friend on social media, click link without thinking twice
- Access a work account from an 'untrusted' computer or public WiFi

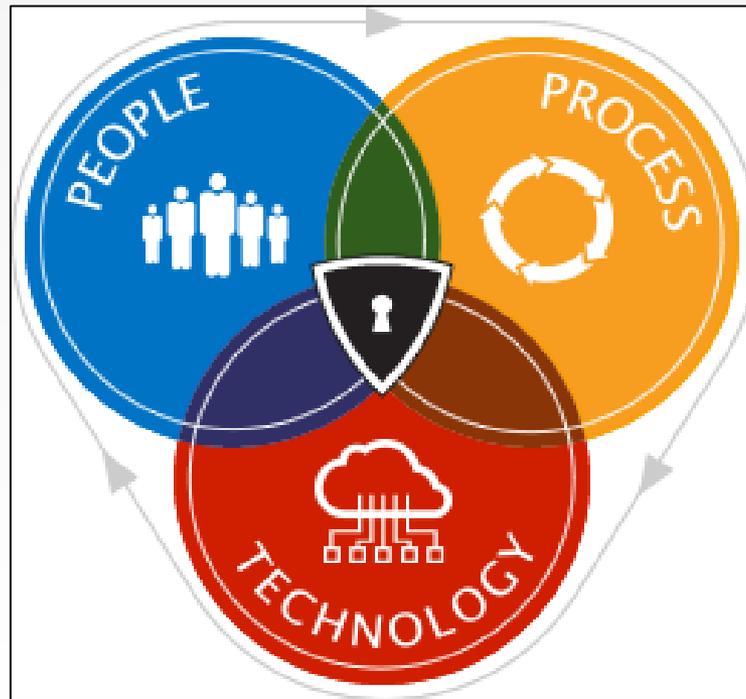


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Cybersecurity Strategy



Graphic: firehost.com

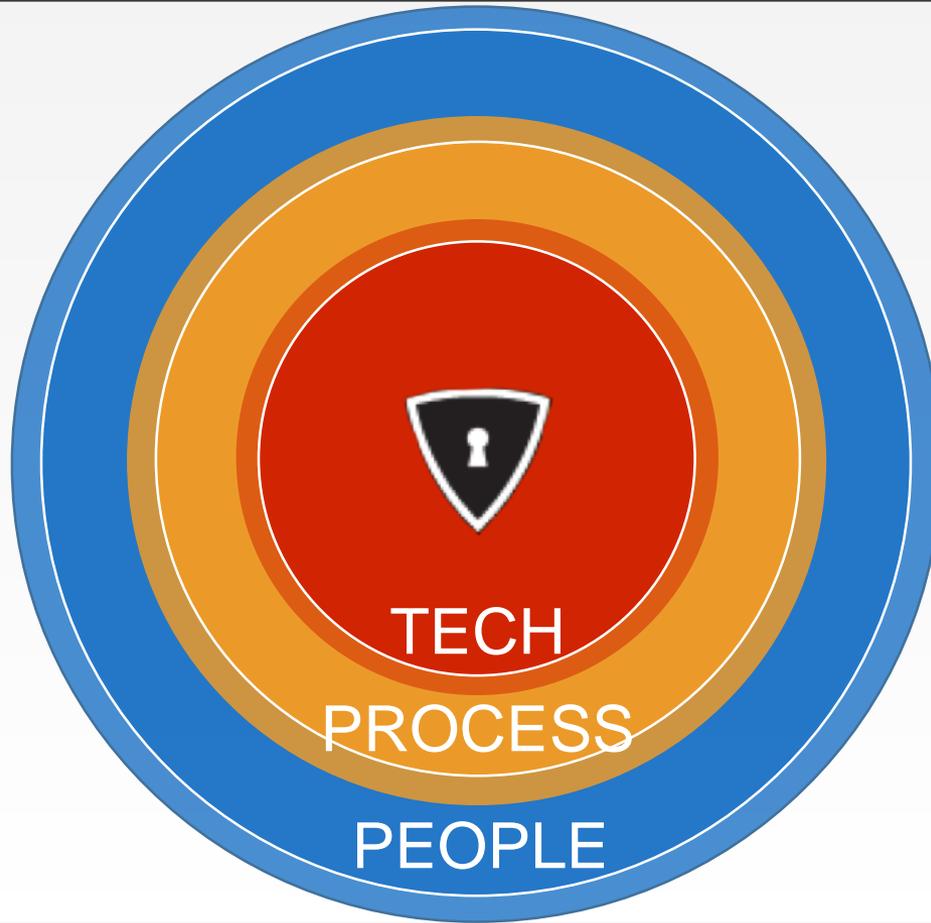
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It's not enough to tell employees what they need to do,
but how and why.

Training & Education are key.



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Antivirus, email filters, and firewalls can only do so much.

Human beings are the first line of defense,

but consistently the weakest link.

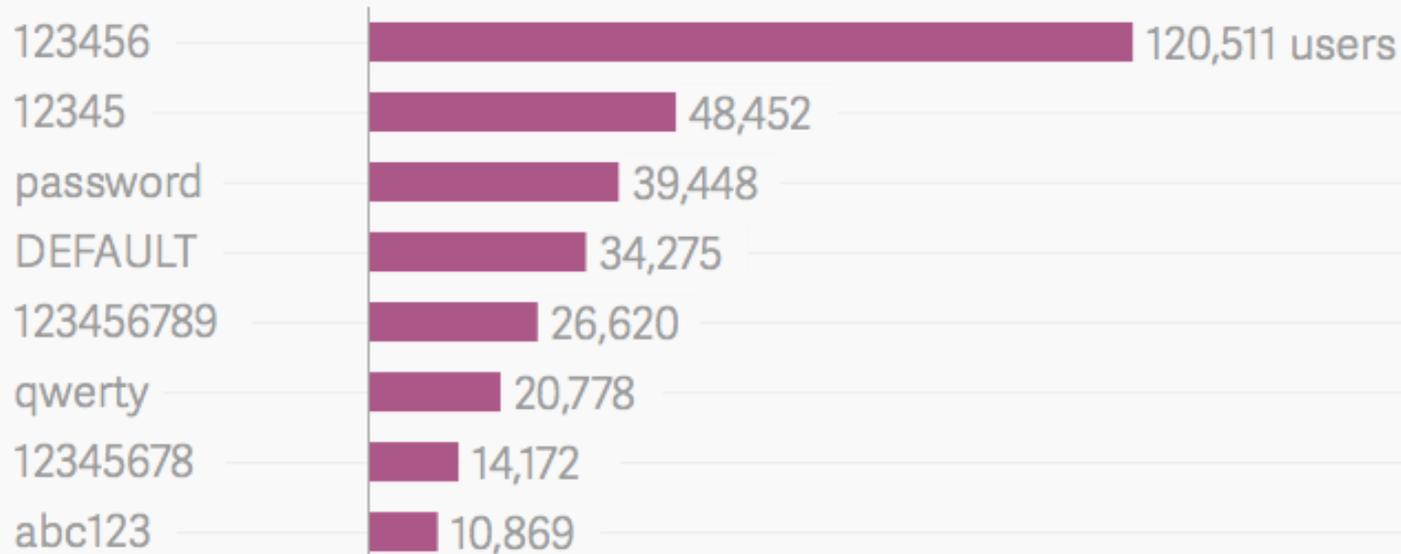


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Most common passwords from a recent, highly-publicized data breach.



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SplashData's 2014 Worst Password List:

| Rank | Password | Change from |
|---------------|-----------|------------------|
| 2013 | | |
| 1 | 123456 | <i>No Change</i> |
| 2 | password | <i>No</i> |
| <i>Change</i> | | |
| 3 | 12345 | <i>Up 17</i> |
| 4 | 12345678 | <i>Down 1</i> |
| 5 | qwerty | <i>Down 1</i> |
| 6 | 123456789 | <i>No Change</i> |
| 7 | 1234 | <i>Up 9</i> |
| 8 | baseball | <i>New</i> |
| 9 | dragon | <i>New</i> |
| 10 | football | <i>New</i> |

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It's all about the basics...

- Passwords
- Two-Factor Authentication
- Social Engineering
- BYOD security
- Patches and updates
- Remote access security
- Social media
- Incident reporting

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Strong Passwords

What?

- Create a strong, unique password that meets security criteria.

Why?

- Credentials are the top target of malicious actors.
- Long, complex passwords raise the barriers to entry.
- Weak passwords – it's not if, but when they'll be cracked.



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Strong Passwords

How?

Use these guidelines to create passwords that are difficult to hack:

- The longer the better – minimum of eight characters – 12+ if possible
- Does not contain any strings within the username, sequential numbers or letters, any dictionary words (especially “password”), no PII such as date of birth, SSN, phone #
- Mix of UPPERCASE & lowercase letters, numb3rs, and \$pec!@l ch@r@cter\$
- Don’t reuse passwords from other accounts
- Consider using passphrases, lyrics to a song, or mnemonic (TCJOTM)



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Two-Factor Authentication

What?

- Enable 2FA on all accounts that offer it.

Why?

- 2FA is a high-impact layer of security that immediately reduces risk.
- Low to no cost to implement – can be done by the user in minutes.



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Two-Factor Authentication

How?

- For enterprise accounts, consult your IT department.
- For web services and personal accounts, see “privacy” or “security settings” menus.
- Popular websites and services that offer 2FA:
 - Google/Gmail
 - Microsoft/Office 365
 - Apple iCloud
 - Twitter
 - LinkedIn
 - Facebook
 - Snapchat
 - Tumbler
 - Dropbox



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Social Engineering Awareness

What?

- *All* employees at every level should undergo social engineering awareness training.

Why?

- These tactics are used to manipulate people into divulging sensitive information or allowing unauthorized access to a system, network, or physical location.
- Human-based vs Computer-based methods



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Social Engineering Awareness

How?

- The best way to counter social engineering is through education.
 - Real-world examples of the latest fraud schemes, phishing campaigns.
 - Variety of free resources and YouTube videos.
 - Hire third-party firm to conduct phishing or phone elicitation attempts.



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BYOD

What?

- Enjoy the benefits of BYOD while minimizing security risks.

Why?

- BYOD is cost-effective for the organization and convenient for employees, but requires proper management in order to mitigate legitimate security risks.



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BYOD

How?

- Effective management of BYOD requires three critical components:
 - Device management software
 - Written BYOD policy
 - Employer/employee responsibilities
 - Permitted/Prohibited uses
 - Specify which devices/apps are supported
 - Data ownership
 - Device security
 - Reimbursement
 - Acknowledgement forms signed by employee



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Patches, Updates & Remote Access

What?

- Rollout of updates and patches to company-owned devices is best handled by IT-administered patch and vulnerability management system.
- Employees must be educated on importance of applying updates on personal devices.

Why?

- Known vulnerabilities are the most commonly exploited.
- A remote access connection is only as secure as the device being used.



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Social Media in the Workplace

What?

- Debate: Allow unfettered social media access? Ban all social media? How to limit?
- Organizations must develop policies to establish what is, is not permitted.
- Educate employees on the threats present on social media: scams, social engineering, links

Why?

- Social media is an easy target for malicious actors to entice users to click links.
- The vulnerability of ‘social proof’.



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Incident Reporting

What?

- All employees should understand when and how to report cyber incidents.
- All employees should feel comfortable doing so, even if reporting a false positive.

Why?

- People **will** make mistakes - regardless of position/rank, education, experience, etc.
- No policy or cybersecurity strategy will prevent all possible incidents.
- Incidents reported ASAP are easier to contain and remediate.



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Incident Reporting

How?

- Organizations must have a clear, written policy outlining the security incident policy.
- Allow anonymous reporting of potential insider threats.
- Employees must have a number to call as soon as they identify an indicator of compromise.
- Employees should know what to do in certain situations – i.e. disconnect from network.
- Report incidents to external agencies.



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External Reporting

- When in doubt, report
- See something, say something applies to cyber as much as terrorism
- Report incidents to the NJCCIC, as well as sector ISAC
- All incidents handled to maintain confidentiality of victims
- When necessary, response coordinate with federal partners

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What is the NJCCIC?

The State's one-stop shop for cybersecurity information sharing, threat analysis, and incident reporting.

- Collaboration between engineers and analysts
- Fusion of technical & non-technical sources
- Promote statewide awareness of local cyber threats
- Facilitate widespread adoption of best practices
- Reduce our members' cyber risk

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FEDERAL GOV

PUBLIC SECTOR



PRIVATE SECTOR

LOCAL GOV

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