NIST: Small Business CyberSecurity Corner

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Who am I?

Information Security Professional

Member of the Board of Directors for NEbraskaCERT since 2004

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Couple of Things

- If you have a question during my presentation, please feel free to ask anytime. You don't need to wait until the end
- If I start to mumble or am speaking way too fast please let me know. I do that sometimes

Goals

Goals for Today are as follows

- Talk a bit about NIST
- Talk a bit the NIST Computer Security Resource Center (CSRC) Search Engine
- Talk a bit about the NIST Small Business CyberSecurity Corner
- Q & A

NIST?

National Institute of Standards and Technology

NIST's mission is to promote innovation and industrial competitiveness.

This has come to include Cybersecurity over the last 20+ years.

Also responsible for the Federal Information Processing Standards (FIPS). Daily example FIPS 140-2. Standards for Cryptographic modules (https).

NIST Couple of Personal Favorites

NISTIR 8151 - Dramatically Reducing Software Vulnerabilities
- Claims we can reduce level of software errors from 25 per 1,000 lines by an order of magnitude in 3 to 7 years
- Very nice read for just 64 pages
- Design changes, increased modularization, looser coupling increased code analysis and others

NIST Developing a Framework to Improve Critical Infrastructure Cybersecurity
- First really good paper about Zero-Trust networking
- One line description, assume every machine is open to attack

Why NIST Matters.

- NIST provides an independent resource you can site
- They accept contributions from industry, but they have strict rules and policies.
- They have guides for emerging topics and provide a place to start for something new you might need to deal with
  - Example what if you have to do research on something like "homomorphic encryption"
  - Example want to see a baseline set of procedures for dealing with ransomware

CSRC Search Engine

Talk a bit the NIST Computer Security Resource Center (CSRC) Search Engine

https://csrc.nist.gov/Search

We'll do a quick search for a topic like ransomware

CSRC Search Engine

Results are all laid out in a similar fashion

- Abstract
- Keywords
- Documentation
- Supplemental Material

NIST Small Business CyberSecurity Act

Not just a good idea. It is the LAW!!!

NIST Small Business Cybersecurity Act, S. 770 - Cybersecurity Act signed into Law on August 14, 2018.

Requires NIST to "disseminate clear and concise resources to help small business concerns identify, assess, manage, and reduce their cybersecurity risk".

Use of the standards is voluntary :-)

NIST SB Cybersecurity Corner

Main URL: https://www.nist.gov/itl/smallbusinesscyber

Main Sections
- Cybersecurity Basics
- Planning Guides
- Guidance by Topic
- Responding to a Cyber Incident
- Training
- Contributor Directory
- FAQ
- Blog

NIST Small Business Fundamentals

NIST Cybersecurity Fundamentals Presentation

https://www.nist.gov/itl/smallbusinesscyber/nist-cybersecurity-fundamentals-presentation

Great high-level introduction to the NIST's guides, terms and technologies.

Is still a draft and their looking for feedback.

FCC Cyber Planner

Reference in the NIST SBC under the planning section:

URL: https://www.fcc.gov/cyberplanner

We'll create a custom planning guide for a company.

Can also download the whole guide in one go.

Security Tips

Link to various Security Tips

https://www.us-cert.gov/ncas/tips

Examples

Security Tip (ST18-007) - Questions Every CEO Should Ask
About Cyber Risks -
https://www.us-cert.gov/ncas/tips/ST18-007
Security Tip (ST08-001) - Using Caution with USB Drives -
https://www.us-cert.gov/ncas/tips/ST08-001

Cybersecurity Insights - a NIST blog

https://www.nist.gov/blogs/cybersecurity-insights

Updates are added to their twitter account as well. Updates are supposed to be happening more frequently. Latest update talked about several new guides including a request for feedback to their IOT draft.

Note on Contributions

Contributions to the site are welcome. That is one of the cool things about the project. If you're documentation is publicly available it might get included.

I have mentioned this to a couple of people with various guides to see if they might be able to get included.

Q & A

Any Questions?

Thanks for listening.

Links

NIST homepage

https://www.nist.gov

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Computer Security Resource Center Search Engine

https://csrc.nist.gov/Search

Links (Cont'd)

NISTIR 8151 - Dramatically Reducing Software Vulnerabilites: Report to the White House Office of Science and Technology Policy

https://csrc.nist.gov/publications/detail/nistir/8151/final#pubs-documentation

NIST Developing a Framework to Improve Critical Infrastructure Cybersecurity - Zero Trust Networking

https://www.nist.gov/sites/default/files/documents/2017/06/05/040813_forrester_research.pdf

Links

NIST Small Business Cybersecurity Corner

https://www.nist.gov/itl/smallbusinesscyber

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NIST Cybersecurity Fundamentals Presentation

https://www.nist.gov/itl/smallbusinesscyber/nist-cybersecurity-fundamentals-presentation

Links

FCC Cyberplanner

https://www.fcc.gov/cyberplanner