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MNOSS Partnerships

Cybersecurity Objectives

Challenges & Initiatives

Cyber Navigator Program

Legislative Commission on Cybersecurity
January 10, 2022

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Overview

- **Office Composition**
  - Administration
  - Business Services
    - Notary Registry
    - Business Registrations
  - Elections
  - Safe at Home Program
  - IT Team
    - Not part of the MN.IT consolidation
    - Three software development teams to support each business unit
    - In-House software application development

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Federal Partnerships

- FBI
- Department of Homeland Security (DHS) - Office of Intelligence and Analysis (I&A)
- Cybersecurity & Infrastructure Security Agency (CISA)
  - Catalog of Services
    - Available at no cost to critical infrastructure
    - Risk and Vulnerability Assessment
    - Remote Penetration Test
    - Vulnerability Scanning
    - Web Application Scanning
    - Validated Architecture Design and Review

State Partnerships

- **MN.IT**
  - Security Operations Center (SOC) daily briefs
  - Leverage additional MN.IT offerings where beneficial and cost effective
    - Office365 security features
    - Data Center
    - Forensics
    - Data flow analysis
    - Offsite log retention
    - Vulnerability scanning
    - Domain registration monitoring
    - Phishing Tool
- **MN Fusion Center**
  - Intelligence and situational awareness

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Non-Governmental Organization Partnerships

- **National Association of Secretaries of State (NASS)**
  - Tech Talks
  - Collaboration with other Secretary States IT offices across the country for best practices and solutions
- **Multi State/ Elections Infrastructure – Information Sharing and Analysis Center (MS/EI-ISAC)**
  - Managed by Center for Internet Security and Funded in part by DHS
  - Available member services
    - Malicious Code Analysis Platform (MCAP)
    - Vulnerability Management Program (VMP)
    - CIS SecureSuite Membership
    - Nationwide Cybersecurity Review (NCSR)
    - Malicious Domain Blocking and Reporting (MDBR)
    - Albert Sensors
    - 24x7 SOC

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Office Cybersecurity Objectives

following the National Institute of Standards and Technology (NIST) Cybersecurity Framework

Credit: N. Hanacek/NIST

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Identify

Develop organizational understanding to manage cybersecurity risk to systems, assets, data, and capabilities.

- Business Environment [ID.BE]
- Asset Management [ID.AM]
- Governance [ID.GV]
- Risk Assessment [ID.RA]

- Identify critical business processes
- Participate in yearly Nationwide Cybersecurity Review (NCSR)
- Establish policies for cybersecurity that includes roles and responsibilities
- Maintain hardware and software inventory

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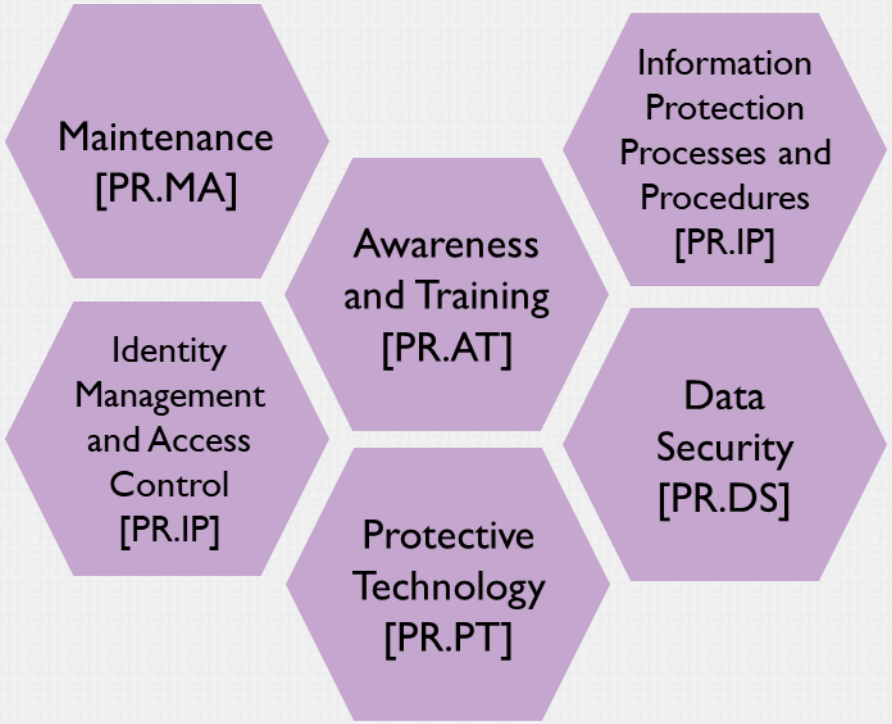
Protect

Develop and implement the appropriate safeguards to ensure availability of services.



- Conduct regular backups and validate backups
- Protect sensitive data
  - Network segmentation
  - Identity management
  - Multifactor authentication
- Patch operating systems and applications using more aggressive schedule as laid out in CISA 's Known Exploited Vulnerability Catalog
- Create response and recovery plans
- Vulnerability scans
- Ongoing phishing training and testing for Staff
- Yearly penetration testing

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Detect

Develop and implement the appropriate activities to identify the occurrence of a cybersecurity event.

Anomalies and Events [DE.AE]

Continuous Monitoring [DE.CM]

- Implemented endpoint detection and response (EDR) Solution
- Monitor data flows for abnormalities
- Maintain and monitor logs

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Respond

Develop and implement the appropriate activities to act regarding a detected cybersecurity event.

Response Planning [RS.RP]

Communications [RS.CO]

- Coordinate with internal and external partners
- Tabletop Exercises
- Ensure response plans are updated

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Recover

Develop and implement the appropriate activities to maintain plans for resilience and to restore any capabilities or services that were impaired due to a cybersecurity event.

Recovery Planning [RC.RP]

Communications [RC.CO]

- Manage public relations and company reputation
- Communicate with internal and external stakeholders
- Disaster Recovery Testing

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Challenges and Initiatives

- Expanded collaboration with federal and state partners to combat foreign actors
- Application Modernization
- Vulnerability Disclosure Program
- IT Talent Recruitment and Retention to maintain in-house applications
- Increased automation in detection and response
- High-profile physical events create opportunities for cyber events
- Continuous Cybersecurity process improvements based on NIST Cybersecurity Framework
- Expanded Cyber Navigator program for county coordination and information sharing

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Election Security Cyber Navigator Program

- **Established late-2019 in advance of 2020 election year**
- **Initial focus: build statewide network of Elections *and* IT leaders in all 87 counties**
  - Cyber threat and vulnerability information sharing
  - Awareness of available state, federal, non-profit and academic election cybersecurity resources
  - Collaboration; shared situational awareness and best-practices
- **2020 Election Year Cybersecurity Assessment**
  - Third-party vendor partnership resourced by OSS
- **2022 HAVA Grants Program to Counties**
  - Comprehensive cybersecurity prerequisites
- **Expanding program capacity in 2022**
  - Additional team member; enhanced partner collaboration

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References

- NIST CyberSecurityFramework
  - https://nvlpubs.nist.gov/nistpubs/CSWP/NIST.CSWP.04162018.pdf (Version 1.1)
- CISA Service Catalog
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- EI-ISAC Service Catalog
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- CISA Directive on Reducing the Significant Risk of Known Exploited Vulnerabilities
  - https://www.cisa.gov/known-exploited-vulnerabilities-catalog
  - https://www.cisa.gov/news/2021/11/03/cisa-releases-directive-reducing-significant-risk-known-exploited-vulnerabilities
- CISA Binding Operational Directive 20-01 - Develop and Publish a Vulnerability Disclosure Policy
  - https://www.cisa.gov/binding-operational-directive-20-01
- CISA Zero Trust Maturity Model
  - https://www.cisa.gov/sites/default/files/publications/CISA%20Zero%20Trust%20Maturity%20Model_Draft.pdf

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Questions

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