

Project Update: District Cybersecurity

February 9, 2023

Madison Metropolitan Sewerage District





Updates

- Increasing Threats
- Cybersecurity Awareness Training
- Reporting & Authentication Tools
- Network Improvements



Increasing Threat - Phishing

- Targets people
- 61% increase in the six months ending October 2022
- 1.5 million new phishing websites monthly
- Increasing sophistication
- 90% of ransomware attacks start with a phish



Increasing Threats - Ransomware

- Via phish email or website
- Estimated 500+ million attacks in 2022
- Average payment: \$220,000
- Average downtime: 3 weeks



Cybersecurity Awareness Training



KnowBe4
Human error. Conquered.

- District's CAT Program
- Started in 2021
- Monthly training and newsletters
- Phish testing
- Annual assessments



2023 Assessment Results



– Industry Benchmark Data ?

Organization's SAPA Score: 76.8%

Industry SAPA Score: 65.6%

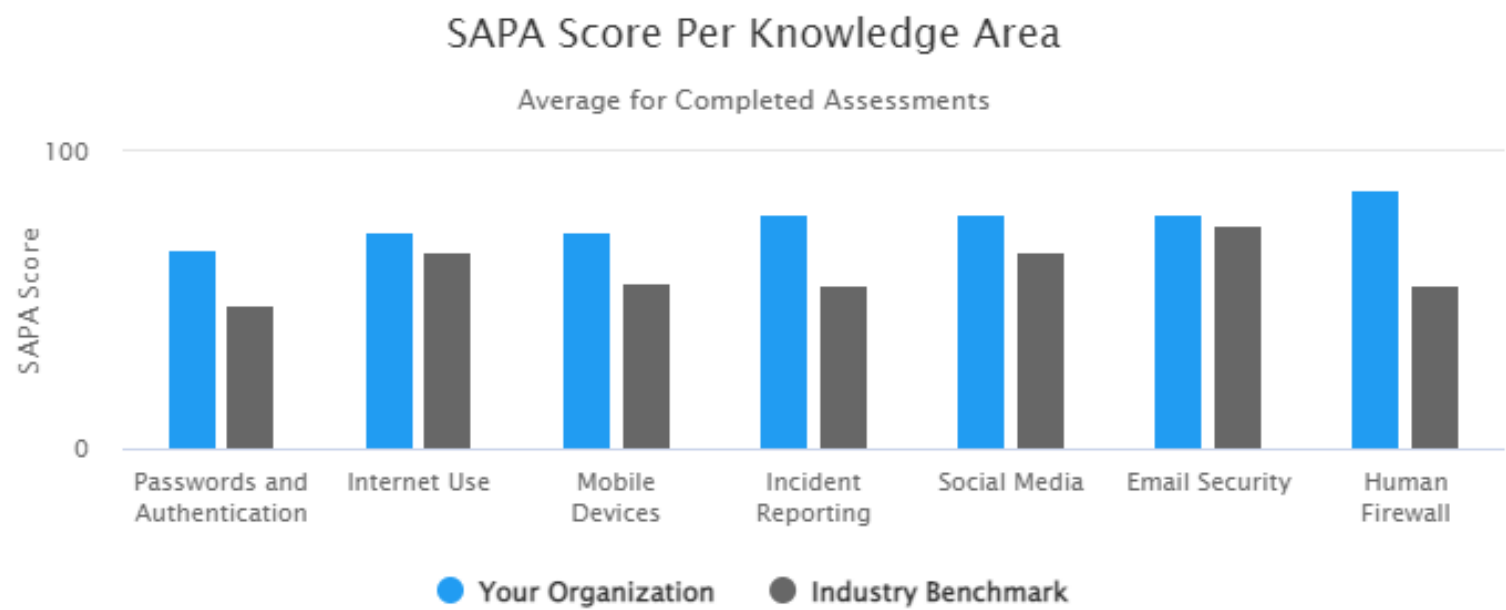
Industry Energy & Utilit ⌵

Organization Size Small (<250 u: ⌵

2023 Assessment Knowledge Areas

Above industry benchmarks in all knowledge areas

Security Awareness Proficiency Assessment (SAPA)

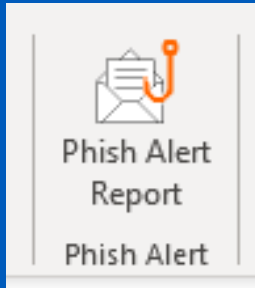


Multi-factor Authentication (MFA)

- Best practice cybersecurity tool
- 2022 implementation on all staff accounts
- Powerful protection: no MFA on 99% of hacked accounts



Phish Reporting and Automation



- Phish Alert Button (PAB)
 - Outlook integration
 - Staff reported 988 phish in 2022
- PhishER system
 - Watches for trends
 - Automatically adds email filters



Network Improvements: Preparing for “When”



- Expanded backups
- Monitoring behavior
- Network improvements and redundancy



Expanded Backups



- Increased capacity
- Multiple types
- Multiple locations
- Manual processes
- Unusual storage strategies



Monitoring Network Behavior

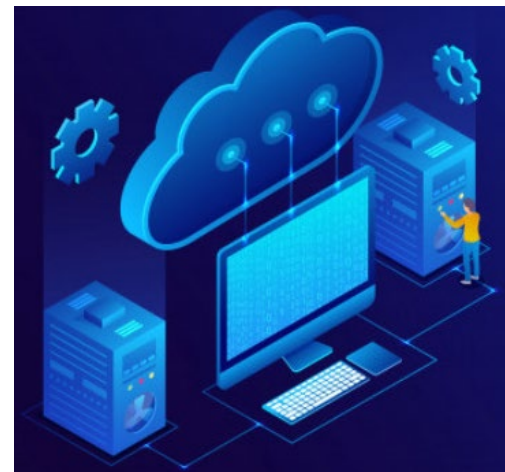
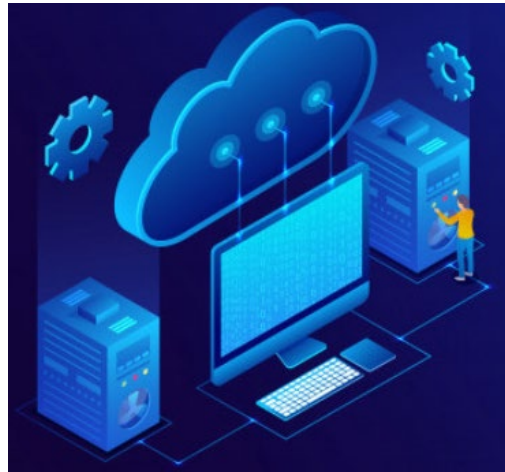


- Network Behavior Anomaly Detection (NBAD)
- Watches the network
- Tools to stop an attack



Network Improvements

- Redundant network equipment
- Redundant storage
- Leveraging the cloud
- New technology disaster recovery location



Questions?

Thank you!



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