CalHFA's 2022 Cybersecurity Update

Russell Nakao

Chief Information Security
Officer

rnakao@calhfa.ca.gov



Ashish Kumar
Chief Information Officer
akumar@calhfa.ca.gov

Agenda

- Cybersecurity
- Mitigating Cybersecurity Risk at CalHFA







Cybersecurity

Cybersecurity is the practice of protecting systems, networks, and programs from digital attacks.

Mitigating Cybersecurity Risks

- E-Mail Security Features (Antigena Email)
- Security Agent Installation
 - ➤ Netsurion; Security Information and Events Management (SIEM)
 - Nessus (Vulnerability Management Scans)
 - > Bit Defender (Endpoint management tools)



Ransomware and Phishing



This Photo by Unknown Author is licensed under CC BY-SA-NC

- ➤ Roughly 90% of data breaches occur on account of phishing. These harmful email attempts may increase by as much as 400% year-over-year.
- ➤ These attacks are getting more dangerous and even harder to distinguish from a legitimate email.
- ➤ The CalHFA Information Technology Division has been working on protecting our staff and data.

E-Mail Security Features Antigena

- The Information Security team successfully implemented Antigena Email
- This system uses artificial intelligence to assist in preventing the most advanced email threats, intervening to protect employees from the full range of threats targeting our inbox.



Security Agent Installations

- ➤ The Information Security team has several tools that assist with preventing and detecting cyber threats
- For these tools to work, a small application must be installed on each agency device (computer/laptop)
- The team has ensured all devices have the proper agents installed (automatically or via procedures)

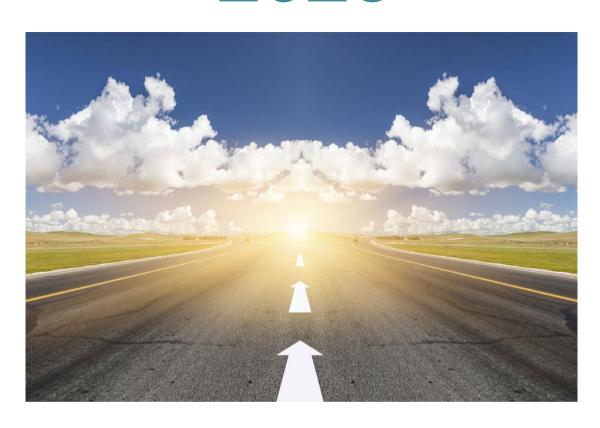
Accomplishments

Security Agent Installations

- ➤ The data from these applications provide our team with an overview of our current security posture
- ➤ The applications automatically reduce harmful acts and enable our team to investigate logs determining impact



Looking Ahead to 2023



Leverage Existing Security Tools

➤ With dedicated staff, the security group will be able to consistently manage/monitor the digital environment with existing security tools (proactive vs. reactive)



Mobile Device Management – MDM (new laptop setup)

- Moving to a laptop for our main "everyday" computer makes connecting to agency resources smoother but also opens the door for potential data loss
- ➤ With the implementation of MDM IT will be able to protect agency devices and data



Passwordless Authentication

- ➤ Nobody likes passwords, especially when standards are changing, trying to prevent bad actors from gaining access. (Example: YR%-0498wxlUO98)
- ➤ The info sec team is researching the option to use a passwordless authentication method



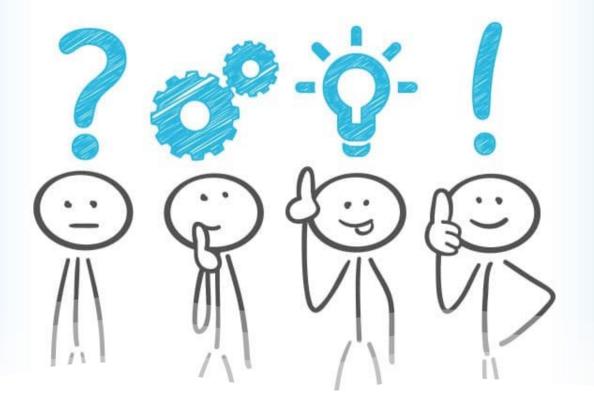
Email Security Features Tailored Training

- Stock training is a great way to relay important information about Information Security but sometimes it can be monotonous
- ➤ We are producing some tailored training to highlight specific things to look out for in the CalHFA digital environment

Independent Security Assessment

- ➤ AB670: Independent Security Assessment (ISA)
- Clifton Larson Allen will be performing our security
 - assessment
- Completed by December of 2022





Questions