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Information Technology Risks

Why the BIG deal?

- Increased digital world
- Accuracy of records
- Audit Requirement

Cybersecurity Statistics

- Average cost of cybercrime is $13 million
  - Cost of responding to attack
  - Restoration of data/systems
  - Reputational remediation
- Cost of a data breach- $8.19 million
  - Restoration of data/systems
  - 3rd party Support (credit monitoring, etc.)

Cyber Security Cont'd

- Leading causes of cybersecurity incidents:
  1. Malicious/criminal attacks (51%)
  2. System failures/glitches (25%)
  3. Human Error (24%)
- Data breach life cycle: 279 days in 2019 an increase of 4.9% over 2018 (266 days)

Government is a target

- Antiquated systems
- Low Budget
- Public Facing

PA local government

- 2019- Leesport Tax Collector System
- 2020- Penn Township, York County
- 2019- Bradford City Hall
- 2020- SEPTA
- 2020- Duncannon Borough
- 2016- Franklin Regional HS
- 2019- Wallenpaupack Area SD

Facts and Figures

- Search for data breaches for 2020: 79 results causing damage:
  - Amtrak
  - U.S. Marshals
  - Small Business Administration
  - State of Texas

CODE WORD

Auditor's Perspective

- The biggest issues we note during our audits are the following:
  - IT Contractors- especially small governments
  - Access Controls
  - Service Auditor Reports
  - Disaster Recovery capabilities
  - Overall cyber security training

IT Service Provider

- Signed agreement?
- Elements of a good contract:
  - What is the job of the third party
  - What is the job of the government
  - Responsibilities
  - What happens when something goes wrong?

Service Provider continued

- Know what access that provider has
- How to deprovision once contract is completed
- Support during downtime
- Security and Confidentiality provisions

Access Controls(Accounting Software)

- Do you have access controls? -
  - Unique username and password
- Who determine access and who grants access?
- Least minimum standard for job descriptions
- Data owners
- Access: read, write, administrative

Access controls continued

- Third party access
- Generic titles:
  Finance.department@localcity.gov
- Billing software segregation of duties
  - Bill, approve, accept payment, write off balances

Code Word

Service auditor reports

- Happens when you use a third party over a major portion of your business
- Sub-Organization- and carve outs
- Common third-party agreements:
  - Payroll processor
  - Billing collections
  - Health insurance claims processing

Government's responsibility

- Obtain and read reports
- Implement user controls at their organization
- Know what is covered
- Respond to any failures of controls at the third party if necessary.

Common failures

- Not receiving or reviewing the report

- Not implementing complimentary user controls

Benefits of Outsourcing Payroll Services

Disaster recovery plans

- Plan in place to recover from adverse event
- Acceptable amount of data loss
- Acceptable amount of downtime

Sources of disasters

- Scale of plans is determined by size of Organization
- Doesn’t need to be a cyber security incident

Code word

Cyber Security Training

- All organizations should have one
- Complex or simple
- Built to suite
- Internal External

End user training

- Acceptable use policy
- Strong passwords
- Phishing campaigns/testing
- Online training
- Easiest way to get into your systems is through email embedded links

Password Standards

- We all have questions surrounding password standards.
  - National Institute of Standards and Technology (NIST)
    - Non-Regulatory agency of the US department of Commerce
    - NIST.gov Treasure trove of information
  - NIST SP 800-63 is latest guidance on passwords
  - The more the merrier, remove the reset, Complexity is not king and make it a user-friendly affair
  - Lose the clues, limit the attempts, and hands-free approach

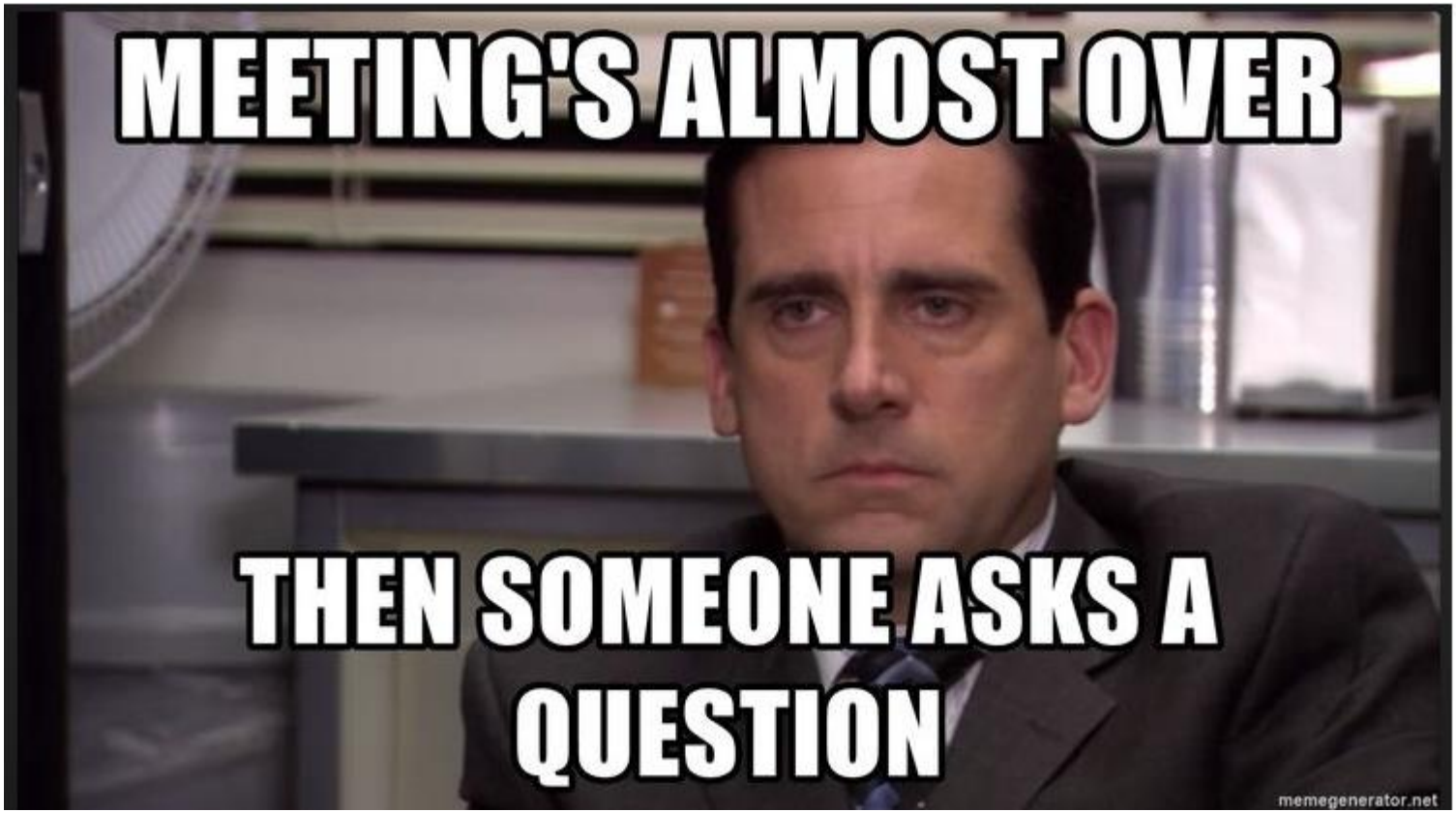
Outside Access

- How is remote access controlled into the Organization's network
  - Difference between onsite and remote
- Are devices provided to employees?
- Does the Organization supply the connection, is the connection secure
- How do vendors access remotely for updates or troubleshooting

Takeaways

- Technology is here and is not going away
- Bad guys will always be around
- Train your employees
- Threats are always evolving

Questions?


MEETING'S ALMOST OVER
THEN SOMEONE ASKS A QUESTION
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Questions? Contact Me!

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