Data Security Issues: Human Error

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Types of Human Error

One of the biggest threats faced by organizations

82% of data breaches involve human aspect – Verizon's 2022 Data Breaches Investigations Report

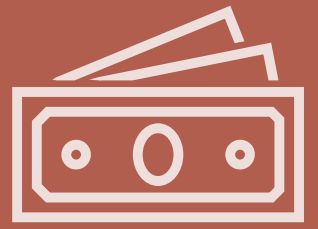
Skill-based errors

- Mistake is made when completing a familiar task, appropriate process not followed because lapse in concentration/judgement
- Example: improper disposal of files by missing a file, overlooking task, or not properly destroying sensitive materials
- Example: falling for phishing scams – most should be aware of the risks of fraud emails but may be caught off guard and fail to catch the scam

Decision-making errors

- Sensitive data compromised because potential risks not understood, due to lack of necessary knowledge or lack of understanding that inaction can have consequences
- Example: when configuring a database of customer records, error can occur if file is not password-protected because not aware that file will be stored on cloud and potentially be publicly accessible

The Cost of Human Error



- Human error can have much greater damages than cyber attacks
- IBM's Cost of Data Breach Report 2021 – 2 most expensive forms of data breach due to skill-based errors
  - Higher costs partly due to human error breaches taking longer to identify and contain, allowing damage to escalate
- BEC (business email compromise) scams cost $5.01 (~£4.15) per stolen record
  - Take on average 238 days to identify and 79 days to resolve
- Phishing scams cost $4.61 (~£3.82) per stolen record
  - Take on average 213 days to identify and 80 days to resolve

Reducing Human Error

Training

- Providing training to promote understanding and awareness of security issues will help to reduce occurrences
- Change bad habits, teaching employees to understand roles in security
- Crew resource management training (scenario-based training for response and containment) reduces human error to help recognize potential threats and best ways to solve

Corporate Technology Investments

- Example: Data Leak Protection (DLP) to filter certain words and phrases, and some advanced systems use machine learning to look for behavior patterns, preventing misdelivery of data
- Example: Multifactor Identification and Authentication Management to add a security level, especially when users have poor password practices

References

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