Measuring Risk

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ITT-306 Information Security II

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## The Risk Analysis Process

***Small Company Server Costs***

The cost for a small business to maintain a server in its own data center can range from around $660 for the initial setup to $300-$575 per month for ongoing hosting and maintenance expenses. This cost can vary depending on the type of server chosen and the amount of maintenance required, (Seo, 2022).

***Small Company AWS Server Costs***

The cost to maintain a server in Amazon Web Services (AWS) is based on a pay-as-you-go model, meaning that you pay only for the services you use, without long-term contracts or complex licensing. The pricing can vary based on usage, but there are no additional costs or termination fees when you stop using the services, (AWS Product and Service Pricing | Amazon Web Services, n.d.).

***Small Company vs One-Day Outage***

Small businesses can face significant costs from downtime, with hourly costs reaching up to $8,600 according to research. However, these costs can vary depending on factors such as industry, revenue, and the number of employees affected. For example, a company with $10 million in revenue could lose up to $50,000 per day from downtime. But it's not just about the financial loss, Downtime can also lead to a loss of reputation, a cost that can be even harder to recover from, (Cormier, 2022).

***Cost justification***

Hosting a server on AWS can provide small businesses with a cost-effective solution for hosting and maintaining their data, while also providing the scalability, flexibility, security, maintenance, and high availability they need to keep their business running smoothly. These benefits justify the cost of AWS.

**Risk Estimates**

***Unauthorized access of an account***

The likelihood of a hacker gaining unauthorized access to an account is higher than AWS when hosting on-premises, as the company is responsible for securing its own network.

***Hardware failure***

The likelihood of hardware failure is higher than AWS when hosting on-premises, as the company is responsible for maintaining and upgrading the hardware.

***Modification or corrupted data***

The likelihood of data modification or corruption is higher than AWS when hosting on-premises, as the company is responsible for managing their own backups and disaster recovery.

***Denial of access***

The likelihood of denial of access is higher when hosting on-premises than AWS, as the company is responsible for ensuring its network is properly configured to handle all traffic.

***Are there other factors to consider?***

AWS provides integrated security features, failover options, data protection, and backup options, as well as availability and scalability options to help reduce the likelihood of these types of events occurring.

## Risk Factor Justification

Small businesses are at risk of cyber security threats just like big companies. They may think they are too small to be targeted, but attackers can easily target many small businesses at once. Small businesses often have weaker technology defenses and less knowledge of threats, making them easy targets, (Witts, 2023). However, they can also have valuable information and money, making them lucrative targets. A cyber-attack can cause a small business to lose a lot of money and harm its reputation, with businesses that have less than 500 employees losing an average of $2.5 million per attack, (Witts, 2023). Therefore, it is crucial for small businesses to be aware of the top security threats, such as phishing attacks that lead to unauthorized access of an account, and to implement measures to protect themselves.

## Summary

Overall, hosting a server on Amazon Web Services (AWS) is *the* cost-effective and secure solution for small businesses. AWS provides built-in security measures, and options for data protection that can help to reduce the risk of unauthorized access, hardware failure, data corruption, and denial of access. Small businesses are at risk of these events when hosting on-premises, however, and can face high costs as a result. In order to minimize the risk of significant financial and reputational harm, I recommend the boss consider hosting on AWS.

# References

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