

Internet of things

IOT

Internet of Things Security Analysis & Countermeasures

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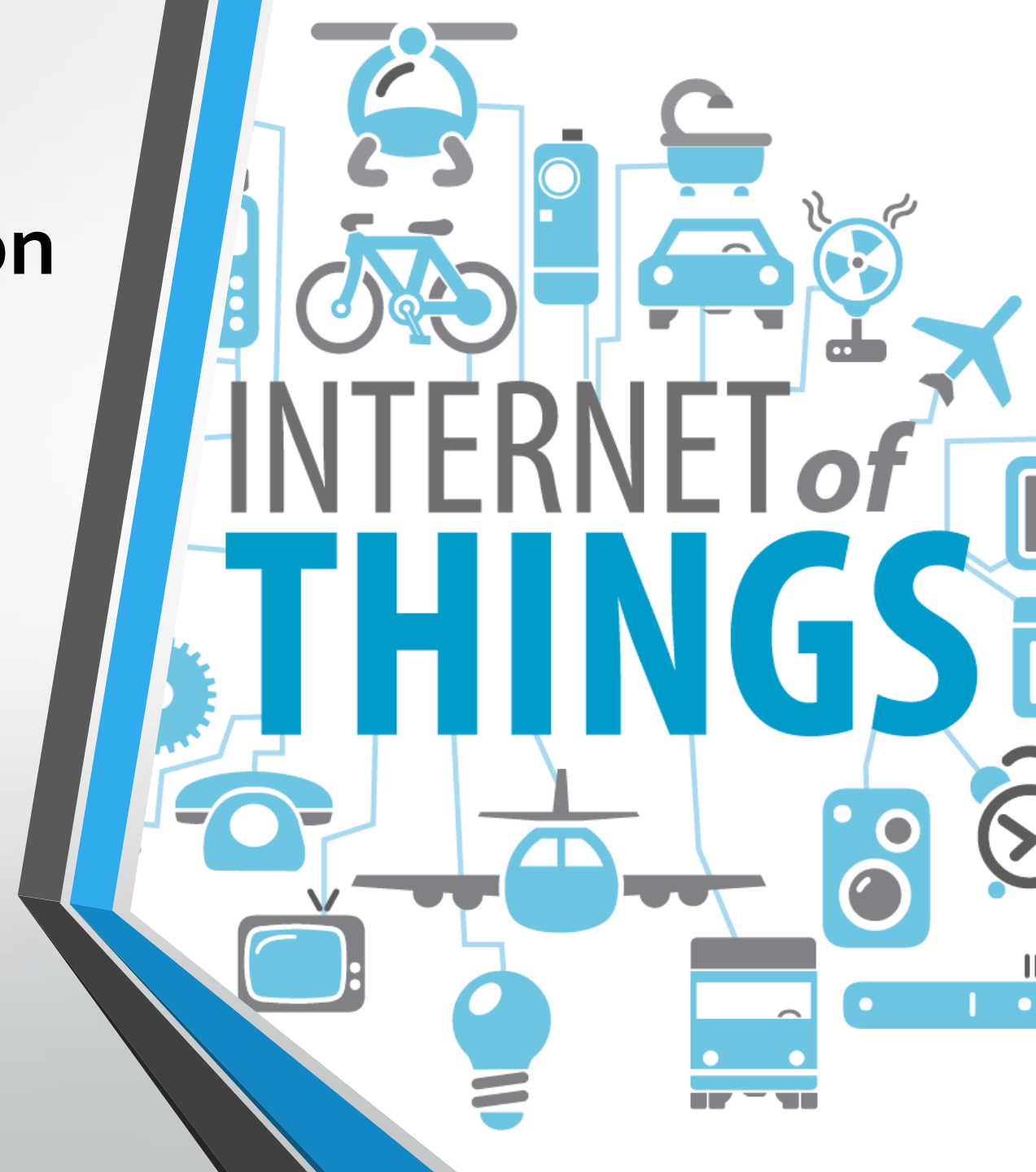
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Internet of Thing: Definition

- Internet of Things (IoT):
 - is the concept of everyday objects being connected to the internet.
 - It enabling people to communicate with devices and allowing devices to connect with each other to achieve great functionality.



Problem with IoT

- Unfortunately, the more complex IoT networks becomes the harder to integrate the system together, so the system will have many vulnerabilities.
- There are several numbers of attacker that trying to exploit IoT network for their own self-benefits. These include stealing people sensitive information, banks accounts, mentoring the system, or controlling IoT devices.
- This report will discuss some attack that threatening IoT networks, what data could be exposed, and ways to defend against this attack.



IoT Attacks

- Internet of thing have several attacks that can affect its functionality
- Some of these attacks are **Man-In-Middle, Denial of Service, Eavesdropping**, and so much more.
- In our presentation we will focus one of the most important attack to Internet of Things which is **Denial of Services** attack.



IoT Denial of Services

A Denial-of-Service (DoS) attack is an attack meant to shut down a machine or network, making it inaccessible to its intended users. DoS attacks accomplish this by flooding the target with traffic, or sending it information that triggers a crash. In both instances, the DoS attack deprives legitimate users (i.e. employees, members, or account holders) of the service or resource they expected

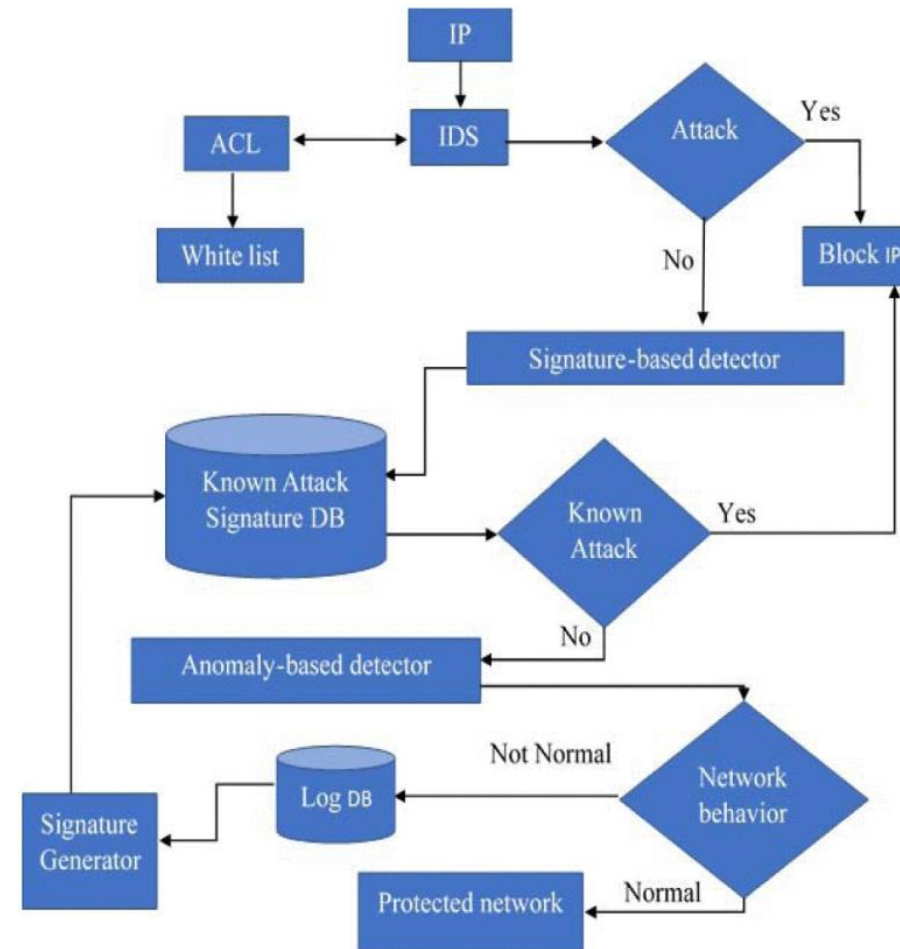


Intrusion Detection System

There are two main methods of identifying and alerting on threats:

- Signature-based detection
- Behavior-based detection

Hybrid approach to mitigate DoS



Conclusion

- Internet of thing is one of the most important aspect of the technology for now and for the future, but unfortunately it has several vulnerabilities.
- It suffer from the huge amount attacks that can limit its functionality.
- In spite of that, there several advanced countermeasures that going to be applied to improve its resistance against different types of attacks.



CONCLUSION

References

- <https://www.globalsign.com/en/blog/five-common-cyber-attacks-in-the-iot>
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Work Distribution

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Managing Teamwork. Man-Middle Attack Design the Report.	Eavesdropping attack	Denial of Services attack



THANK YOU!