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Analytical paper

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The development of cyber-policy is crucial in today's society. While technology grows, so does the risk of information being stolen from people hacking into your private information and a company's information system. Many people do see the faults in our cybersecurity systems, and this might be why they are hesitant to support the rapid growth of policies set in place to protect information. Some might fight to say that the public policy issue of cybersecurity has a negative effect on other policy issues (NAP.edu). One of the major concerns of cybersecurity is how vulnerable the information technology that the nation depends on have gotten more elaborate since September 11, 2001 (NAP.edu). Cyber espionage has increased at private organizations and government agencies in the US (NAP.edu). I understand the concerns of the hackers and attacks through technology; however, this is why cybersecurity should be at the utmost importance in our nation. We need to be better prepared to defend ourselves during attacks like this. If we take the correct measures in ensuring our information and our systems are safe, we will decrease the likelihood of an attack. Cyber security is one of the most important aspects of our tech savvy society today.

We need to be prepared to protect our information no matter what information that is. Industrial cybersecurity is one of the most important pieces of any company or business with a network system. These industrial cyber threats come in a variety of attacks. In the article, one of

the examples was even using a computer, for personal browsing, increases the risk of cyber-attacks. The impacts at stake caused by a security breaches on any company can cost lives, cause fines from any regulators or customers who have been put at risk, loss in product or services, and the company or business can shut down completely. According to the article given, many companies think they are ready for these potential risks but might not be fully prepared for their overall approach to a cyber-attack (the state of industrial cybersecurity). In this study, it was shown that only 1 in 5 businesses were required to report any cyberattack or breach on their systems (the state of industrial cybersecurity). This, keeping in mind those companies or businesses who have normal, or not secure information on their sites. Any major company with an ICS should take the security of their systems seriously not only for their business but for the people they serve and the people who work there. One of the most common parts of cybersecurity and keeping information secure is known as identity management. This is very important to companies or businesses with multiple people who have access to the same secure files or information. I know it's vital for any business with a network to have these systems in place to protect their information so only certain people can access it. That leads me into another highly important piece of cyber security. Identity management is so important to any company who has any type of technology with information on it. One key trend that stands out to me every time we talk about it is multi-factor authentication because it is the most efficient way, in my opinion, to ensure the legitimacy of someone's identity. This was explained by saying that the person who is trying to gain access to the information needs to put in additional information rather than just the initial password. Another key trend to look out for is the growing authentication around the world. This trend hops on the ideas that authentication is growing stronger and more reliable technology equipment. This introduces the development of the FIDO

alliance, Fast Identity Online, who is described as finding an easier more reliant way for users to access information without stress of usernames and passwords. The FIDO alliance is an organization formed in 2012 to address the lack of strong authentication in technology. FIDO's goal is to create a simpler, stronger and easier way for individuals to access information without the use of multiple passwords and usernames for online services. The alliance uses a variety of authentication like finger prints or password less, second factor and multifactor (What is fido?).

Cryptography helps secure communications between multiple parties. Cryptography helps us with authenticity and integrity in our computer communications systems because it keeps systems accountable for checking identifications and keeping private information secure and going to the right people. Cryptography helps with authenticity because it shows that when a message goes through a system it is from the secure source and going to the other secure source it wants to reach. This also helps prevent anyone intersecting the message who is trying to get information or hack into the system Any information that is private and can only be seen by certain individuals requires some sort of identity authentication as in a certificate, key or code. Cryptography helps with integrity as well because if you were to receive a message from a private source and the individual who sent it to you signed it, you can check their public key to make sure that it is truly from who you think it is. Cryptography is important to anyone who needs to transfer data or keep data encrypted. This technology helps anyone who needs to use a device to communicate private information via devices.

While I understand the concern of the cyber world and what could happen to information; and each opinion is listened too, this information should solidify that we, as a society need cybersecurity. Say you were going to add your credit card to a subscription for a newsletter. I would want to make sure that my information is protected and would make sure to check the

security measures they have on their site. This is just a small example as to why there should be cyber-policy's put in place and pushed to ensure that everyone can do their best to protect information. A cybersecurity policy is set in place to set the standard of behavior for encryption information over cyber tech. This helps prevent cyber hacks and breaches that could potentially ruin a company or organization. As I have said throughout this paper, need to enforce more cybersecurity techniques to protect any secure. As a society, we should push the importance of having a cyber security system in any technology that holds information. No information is out of the running for a cybercriminal to want to try to steal and use to benefit themselves and with the correct security protecting the network, will help everyone.

References

Anon, D. (n.d.). An Introduction to Cryptography. *An Introduction to Cryptography*, 1-21.

Retrieved from

<https://drive.google.com/file/d/1u4NQIE5EZvoyizHoTuns96rZN8i7MEqL/view>

The Impact of Cybersecurity on Small Business. (2014). *The Impact of Cybersecurity on Small Business*, 1-3.

Paulsen, C. (2016). Small Business Information Security; The fundamentals. *Small Business Information Security; The Fundamentals*, 1-54. Retrieved from

https://drive.google.com/file/d/1skgUaMDG1zMNrQ6pppohB_GGNATDzzcl/view

Read "at the nexus of cybersecurity and public Policy: Some basic concepts and issues" at NAP.edu. (n.d.). Retrieved April 28, 2021, from

<https://www.nap.edu/read/18749/chapter/1#ii>

The State of Industrial Cybersecurity 2017. (2017). *The State of Industrial Cybersecurity*, 1-23.

Retrieved from [https://drive.google.com/file/d/1MH4z5AXgmkaW2jLc5aPXO1-](https://drive.google.com/file/d/1MH4z5AXgmkaW2jLc5aPXO1-fryiZiAuO/view)

[fryiZiAuO/view](https://drive.google.com/file/d/1MH4z5AXgmkaW2jLc5aPXO1-fryiZiAuO/view)

What is fido? (2020, June 08). Retrieved April 29, 2021, from <https://fidoalliance.org/what-is-fido/>