Asguardian Cyber: A Customized Cybersecurity Program to Prevent Intrusions from Hackers

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In 2018, the total cost of cyber attacks globally has summed to over $1T and the annual cost of global cybercrime is projected to reach $6T by 2021. In the US, 4,000 cyber attacks occur each day averaging about $600,000 in damage. Specifically, small businesses cannot afford to be the victim of a cyber attack. Statistics show that 60% of small businesses that experience a cyber attack go out of business within six months of the attack. Although there is security software that offers anti-malware, firewall, and even web browser security, there is no software on the market that configures security settings of the PC. Improper security make businesses vulnerable to cyber attacks. The typical one-size-fits-all approach of security software companies does not integrate with custom usage-based approach required for security setting configuration. The goal of this project is to create a program that hardens the security settings of the computer based on its usage requirements. After developing requirements, a Work Breakdown Structure was created, dividing the program into seven sections: remote access, local security policy, windows defender/updates, user auditing and settings, authorized file types and shares, authorized windows features, and the integration of the platform to bring these sections together. Each time a script was written, it was tested and redesigned until it met its own specific requirements. The Asguardian program successfully set standard security measures, security configurations based on the usage of the machine, and gave administrators information on user privileges. Asguardian secures the security settings on a PC, hardens a machine, and makes those businesses hard targets for hackers, significantly decreasing the chances of successful cyber attacks.

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