Collaborative Discussion 1 – Received Response – Aldo Madrid

Thank you Michael for your post and for the measures proposed to defend against force brute and denegation of service attacks. As you mention the medical industry and medical equipment has brought infinite advantages to the life of human being. Nevertheless, these devices can represent a double-edged sword, on one hand healthcare treatments have improved considerably, but in the other hand these advancements have opened a wide space of opportunities to cybercrime (Yaqoob and Atiquzzaman, 2019).

Security in medical equipment should be considered as highly relevant. These devices transmit and receive personal information that by nature should be confidential (Yaqoob and Atiquzzaman). The exposure of personal health data of someone such as drug abuse, mental disability, chronic and sexual transmission diseases could cause discrimination, loss of employment and social rejection (Al-Salqan, 1998). That why hackers have taken advantage of software vulnerabilities to perform frauds and extortions attacking the confidentiality, integrity and availability of healthcare data.

The great majority of medical equipment can be considered as systems with limited resources. Many of their vulnerabilities can be related with the lack of incorporation of security measures during their development, possibly because of the physical constraint of being able to add these measures. In addition, legacy software and medical hardware is still used and when they were developed no security threats were foreseen (Yaqoob and Atiquzzaman, 2019). As cyber threats continue to grow interest in the medical industry cybersecurity measures should evolve accordingly to combat and cover vulnerabilities in software and hardware of medical devices.

References:

Yaqoob, T., Atiquzzaman, M. 2019. Security Vulnerabilities, Attacks, Countermeasures, and Regulations of Networked Medical Devices. Available from: https://0-ieeexplore-ieee-org.serlib0.essex.ac.uk/stamp/stamp.jsp?tp=&arnumber=8703068&tag=1 [Accessed 16 November 2021].

Al-Salqan, Y. 1998. Security and confidentiality in healthcare informatics. Available from: https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=725720 [Accessed 20 November 2021].