How do engineers make cyber networks safer?

Amy Lawson-Gunkel

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Details

The responsibilities of an engineer in the field of cyber security encompass the safeguarding of their company's sensitive data; the engineer must be prepared to encounter new and complex methods of attacks against their network. The engineers are their companies first line of defense.

The engineers are responsible for the initial set up and maintenance of their network and security software, this requires them to take preventative measures against "disruptions… natural disasters, or malicious cyber attacks" (careerexplorer.com). They will begin the execute of this task by putting into play a system that monitors the activity on their network, which controls who has access inside. The maintenance on these networks include upgrades to the systems as they become available, troubleshooting any problems that arise, and testing for any vulnerabilities that may reside within the network. The engineers must be able to work with security administrators and security technicians, vice versa; these three teams will ensure the safety of the network by keeping their configurations relevant to the potential threats against their organization. When it comes to the users and their authentication or control systems, "Typically, the specialists and administrators will handle the front-line aspects of these security features and escalate serious incidents to the security engineers or security analysts for further investigation or long-term solutions" (Cybersecuritymastersdegree.org).

There is an extensive list of responsibilities that are expected to be performed by a cyber security engineer; outside of their more obvious tasks, an engineer must be able to complete their regular administrative duties, they should be have proficient reporting and communication skills, and assist in the changing of management processes. Cyber security engineers act as the back bone of their organization by generating and maintaining their first line defenses against all threats against their network.

References

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