Engineers' Role in Managing Cyber Risks

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Details

The role of engineers in managing cyber risks ranges based on the type of engineer. There are many types of engineers, including electrical, that have to take into account not just environmental factors, but human factors for compromising systems. This is a new mindset that has been born from an understanding that cybersecurity is a global problem and not just one of certain companies. Systems like energy grids or transportation systems won't be designed by cybersecurity engineers, but are capable of being attacked in a cyber method to disrupt the systems and cause damage. It is then necessary for these engineers to understand and incorporate cybersecurity concepts into the systems that they design to increase its reliability and resilience. Otherwise these systems are not secure or well made and could be easily.

Within the role of cybersecurity engineers, however, cyber risks are, consequently, much more of a central issue. According to NIST, the National Institute of Standards and Technology, "The System Security Engineer is an individual, group, or organization responsible for conducting system security engineering activities." It is the purpose of system security engineers to make sure that any system that will be made will have limited cyber risks and that legacy systems will be updated to limit cyber risks in that old system. They must correspond with others in IT and executives so that these people understand the best practices and structures of systems to limit cyber risks.

It is important that system security engineers do this job to limit losses and increase uptime of systems. It is their role to understand and mitigate risks so that it would be unlikely that attacks on systems would occur and thus these systems would lose less uptime and infrastructure would incur less damage. This limits capital losses, keeps information secure, and lessens time lost to cyber attacks.

References

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