



SecureDesign

Measuring digital designs for cyber resiliency

The movement towards connected control systems to increase automation, speed, and ease of operations is a pervasive reality that will continue to expand into every industry. Control systems are prevalent in critical infrastructure such as power grids down through local municipal water pump stations and up through military platforms on land, sea and air. Securing these connected control systems against today's sophisticated and emboldened hackers has never been more important as many of the systems were originally built for ease of use and operations, as many systems were built prior to and without anticipating modern threats. These systems thereby inadvertently sacrifice cybersecurity for ease of use and operations. Securing tomorrow's control systems cannot be performed after leaving the drawing board. Cybersecurity should be *designed in* from the very start of the engineering process and equally weighted to the other core components.

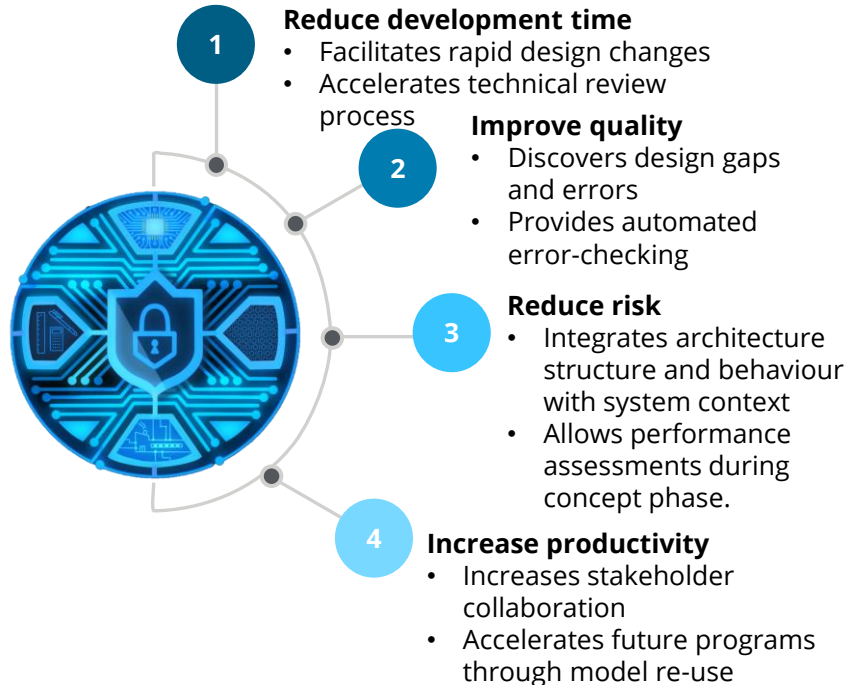
Digital engineering enables industry to design, test, and produce complex systems at unprecedented speeds. Absent the use of labor-intensive cybersecurity expertise, digital engineering tools can leave systems vulnerable to cyber risks. Cybersecurity standards are complex and therefore are not easily translated into practical digital engineering applications making them slow to keep pace with the rest of the design team as they are manpower-intensive and happen outside of the digital design environment.

SecureDesign scores digital models in development to assist system designers, program managers, and RMF evaluators addressing cybersecurity concerns by weighing results against the MITRE ATT&CK framework to identify potential vulnerabilities**

Approach

SecureDesign was developed as a plug-in application compatible with industry standard software to assist designers, managers, and evaluators to address cybersecurity throughout the entire design cycle. Our approach assists development teams to evaluate systems by assessing their digital model for key cybersecurity design elements as they mature. Based on demonstrated model-based system engineering practices, your engineers can use *DesignedIn: Cyber* to dynamically analyze system designs for cybersecurity throughout the system lifecycle. This tool can help your engineers evaluate subcomponents to understand if the system's cybersecurity resiliency has been adversely affected.

SecureDesign also provides program owners an objective and quantifiable way to 1) compare cybersecurity resiliency of design models from competing vendors and 2) identify cyber areas for improvement during new system designs and/or system modernization.



SecureDesign has the potential for cost reduction over a document-based approach

- ✓ **Repeated** assessments throughout development informs **trade-off decisions** and allows for **tracking of maturity** of security design
- ✓ Performs **quantitative evaluations** of system designs and architecture to assess level of compliance with **NIST Design Principles for System Security** and **Zero Trust tenets**
- ✓ Helps limit potential vulnerabilities through scoring **design choices** before a system is physically built

Contact us for more information! securedesign@deloitte.com

****Note:** SecureDesign is a digital model assessment tool and does not create digital models

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