UNDERSTANDING CRITICAL FUNCTION ASSURANCE

THE DIFFERENCE BETWEEN CFA, CIE AND CCE

For over 20 years, Idaho National Laboratory has focused on Critical Function Assurance (CFA) and specifically the role that industrial control systems and operational technology play in assuring critical functions and missions in the digital age. INL championed the concept of Cyber-informed Engineering (CIE) and created a robust and repeatable methodology to apply CIE principles, prioritized based on functional impact and operational understanding through Consequence-driven Cyber-informed Engineering (CCE).

Critical Function Assurance is an approach to prioritize and address risk based on impact. It is rooted in a holistic understanding of how critical functions are delivered. It provides rapid focus to what matters most and illuminates elements and areas of risk that are often overlooked. This focus enables effective application of available security resources to the most vital areas of a business/mission/entity and provides the foundation for optimizing security strategy and policy efforts.

Cyber-informed Engineering (CIE) is a series of principles focused on integrating cybersecurity considerations into the conception, design, development and operation of any physical system that has digital connectivity, monitoring or control related to the delivery of a critical function.

Consequence-driven Cyber-informed Engineering (CCE) is the repeatable process/methodology to merge the essence of CFA, by prioritizing and addressing risk based on impact and functional delivery knowledge (the Consequence-driven piece), with the application of CIE principles (the Cyber-informed Engineering piece). It provides a holistic process to achieve the desired result of assuring what matters most in a structured, time-proven and repeatable way.

In essence, the relationship can be simplified by thinking of CFA as the 'WHY,' or the objective, and CIE as 'WHAT' principles to think about in achieving the objective. CCE can be thought of as a repeatable process to apply elements of CFA and CIE to achieve assurance of critical functions.

FOR MORE INFORMATION, VISIT OR CONTACT:
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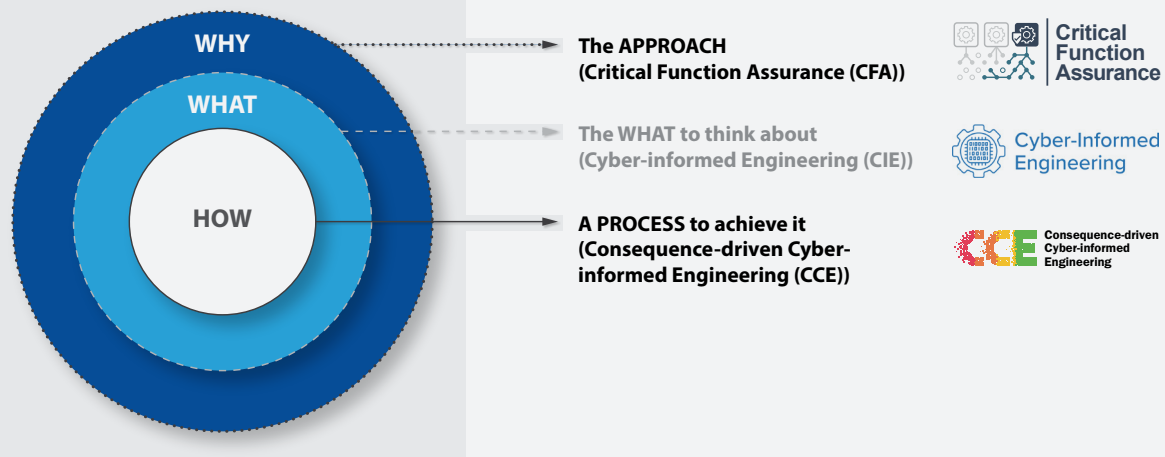

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