Carnegie Mellon University
Software Engineering Institute (SEI)

Lunch and Learn Series

Session 2 of 12

Wed June 15, 2022
12:00 – 1:30 PM EDT

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Carnegie Mellon University

SEI CERT's Zero Trust Journey:
Systems Engineering for Cybersecurty

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A **FREE** Virtual Event – Registration Required

Abstract. Zero trust (ZT) is the term for an evolving set of cybersecurity paradigms that move defenses from static, network-based perimeters to focus on users, assets, and resources. A ZT architecture (see NIST SP 800-207) uses ZT principles to plan industrial and enterprise infrastructure and workflows. SEI's CERT Division is a leader in cybersecurity, partnering with government, industry, law enforcement, and academia to improve the security and resilience of computer systems and networks.

This presentation describes the development of SEI's Zero Trust Journey, which provides a transition path to apply ZT tenets across an organization. It is a systems approach that combines Mission/Business Threads, Systems Security Engineering (NIST SP 800-160 volumes 1 & 2, in conjunction with ISO/IEC/IEEE 15288), Model-based Systems Engineering (MBSE), Continuous Authorization (cATO) concepts, and Cybersecurity Engineering Assessments that identify risks and provide decision makers with important insights. The Zero Trust Journey activities guide the development of the infrastructure required for the implementation of the ZT transition roadmap and focuses on continuous monitoring of operations and changes.

Tim Morrow is the situational awareness technical manager in the SEI CERT Division's Monitoring and Response Directorate. He has been with the technical staff for 18 years, and provides acquisition and technical support in the areas of systems-of-systems, system and software architectures, engineering development and analysis, cybersecurity, risk management and process development/improvement. Tim's team works with the U.S. DoD, USG, and commercial organizations employing a hybrid network environment to observe their security posture in a quantitative or strongly qualitative manner for management of security and other risks throughout the system engineering lifecycle. Tim has an M.S. in Electrical Engineering from the University of Pittsburgh and a B.S.E.E. from Penn State.

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