

Title: Information Systems Survivability: Protecting Critical Systems

Speakers:

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Summary of Topics:

Increasing societal dependence on large-scale, distributed information systems amplifies the consequences of intrusions and compromises. It is vital that these critical systems survive to provide essential functions even when operating under adverse circumstances. The objective of this tutorial is to describe practical techniques for survivability analysis and design that attendees can apply in their own environments. In particular, the tutorial introduces the Survivable Network Analysis (SNA) method developed by the SEI's CERT/CC, as a means to assess and improve survivability and security characteristics of planned or existing information systems. The SNA method introduces concepts of mission survivability, essential services, intrusion scenarios, intrusion resistance, recognition and recovery (the three R's), and Survivability Maps. The tutorial will present a case study of survivability analysis, and will discuss survivability research activities.

BIOGRAPHIES

Robert J. Ellison is a Senior Member of the Technical Staff in the Networked Systems Survivability Program at the Software Engineering Institute, Carnegie Mellon University. He is involved in the study of survivable systems architectures and the associated architectural and design styles. Mr. Ellison has a PhD in mathematics from Purdue University, and is a member of the ACM and the IEEE Computer Society.

Richard C. Linger is a Senior Member of the Technical Staff in the Networked Systems Survivability program at the Software Engineering Institute, Carnegie Mellon University. He is engaged in research directed toward improving survivability of large-scale infrastructure systems. Mr. Linger teaches at the CMU Heinz School of Public Policy and Management, and is a member of the ACM and the IEEE Computer Society.