

Simulation Modeling for Cyber Resilience

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Abstract

Identifying high-leverage intervention points to increase cyber resiliency—the ability to provide and maintain acceptable service levels in the face of challenges—requires identifying, integrating, and framing a diverse set of strategies that cut across boundaries of governments, corporation, non-profits, and individuals. Drawing on a preliminary framework developed by Jonathan Zittrain, we identify several sources of corporate interventions and suggest possible trajectories for intervention effectiveness over time by utilizing simulation modeling. The overall goal of this research is to develop innovative management and operational approaches using experts, emerging data sets, policy analysis, and relevant theory, along with simulation-modeling, to enable real-world implementation of high-leverage opportunities to promote corporate resiliency to cyber threats.