

Survivability Analysis of Informational Systems

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Abstract

Unlike the traditional security measures that require central control or administration, survivability is intended to address unbounded network environment. Survivability is the capability of a system to fulfil its mission in a timely manner despite intrusions, failures or accidents. In this paper we develop a model to evaluate the tradeoffs between the cost of defense mechanisms for informational systems and the resulting expected survivability after a network attack. By varying the level of defense in the simulation, we examine how this expected survivability changes with the defense level.

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