

**Fourth Information Survivability
Workshop (ISW-2001)**
*"Impediments to Achieving Survivable
Systems"*

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Abstract

The apparent prevailing focus on abstract theory and extant teaching models for systems security, and cryptography do not provide a clinical – more applied learning vehicle for discussion of systems survivability in some college and professional school settings. To experimentally meet this gap a case was developed.

The clinical case “*The eTrading Server: The DDOS Attack*” was prepared among three University teachers and security professionals and used as a vehicle to stimulate case discussion and technical/managerial dialogue in making judgments about the efficacy, system and process for supporting survivable systems at the enterprise level.

A set of pre-class reading, and the in-class case presentation was facilitated by having a “live” demonstration of an exemplary distributed denial of

service attack (DDOS) supported by faculty-led discussions of successive A – B – C and E. cases. CERT® Advisories and survivability practices were injected in the case discussions. Students were called on to make managerial judgments as the case progressed.

Both faculty and students' reactions have been quite positive to delivery of this case and in-class attack demonstration model. The use of this case has resulted in a wide-ranging interest, comments and questions about better technical and managerial decisional frameworks for more survivable systems.

This “*The eTrading Server: The DDOS Attack*” case has now been presented at four universities in the US, Mexico, Finland and Singapore. The final (ISW-2001) submitted paper will provide a general teaching pedagogy for systems survivability teaching supported with some annexes with the A through E cases and teaching notes.

In conjunction with the relative success of “*The eTrading Server: The DDOS Attack*” a new draft case – “*Zombie: The Night of the Living Dead*” will be discussed relative to software development practices and managerial responsibilities in mission-critical systems management environments.

The rationale of this paper is that university-teaching cases presents a reasonable locus for both clinical and more applied systems survivable precepts and practices than more traditional abstract teaching models.