

# Modelling the internet as spatially constrained interdependent networks

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Copyright © by the paper's authors. The modern world has made the Internet a need for the people. More than ever before we have Internet dependent systems and devices. Thus, it is important to maintain the infrastructure of the Internet working properly. In order to do this first it is necessary to understand and model the behaviour of the components of the Internet network. In this paper we characterize the interactions between the Internet's physical and logical layers, and recommend a mixture of existing models from the literature to model this specific case. We study two cases of simulated Internet structures and find that an Internet physical layer embedded in a long and narrow space with Chile-like proportions of width and length is more fragile to random attacks than an Internet physical layer embedded in a square space.