

# **SPATIAL NETWORK TOPOLOGY**

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## **Abstract**

In 2007 the I-35W Mississippi River bridge in Minneapolis, Minnesota, built in 1967 collapsed on August 1st leaving one of the major transportation ways across the Mississippi River impassable, disrupting the transportation of goods and services. This is an example of the Nations aging infrastructure that has lived out its life expectancy and demands new and improved construction. But this is not limited to the roads, bridges or buildings that form the metropolis, but includes the electric energy used to power it. This study introduces a new method of defining characteristics for the Texas power grid network, and refining properties of real networks by incorporating space. Included in the study are the traditional methods of computing the relational properties of a system, and a proposal on how a modification can improve the model and help show how power grid networks grow.