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## [Internet Black Holes Make Data Mysteriously Disappear](#)

*They are the reason users cannot connect to miscellaneous websites*

Server downtime and maintenance are not the only factors that sometimes block users from reaching their favorite webpages. It's true that server and hosting technical problems are the main reasons the websites fail to load, but researchers have unveiled another mysterious possibility that prevents you from reaching your desired page. "There's an assumption that if you have a working Internet connection then you have access to all of the Internet," said Ethan Katz-Bassett, a UW doctoral student in computer science and engineering. "We found that's not the case." According to the researcher, some of the TCP/IP data packets simply disappear on their way to the destination. Katz-Bassett's Hubble project is able to detect the so-called "information black holes" in order to be mapped and analyzed. The team at the University of Washington, where the program is ongoing, discovered that although two computers are connected, the messages exchanged between them get lost along the way. The researchers have managed to issue a map of the black holes worldwide, that allows users to monitor an IP address' status. The Hubble project sends test messages across the Internet, in order to detect computers that can be only partially reached. This means that some users can reach the specific node, while others cannot, despite the fact that the network is working properly. According to the researchers involved with the project, more than 7 percent of the worldwide computers have faced this kind of communicational breakdown during a three-week period. "When we started this project, we really didn't expect to find so many problems," said Arvind Krishnamurthy, a UW research assistant professor of computer science and engineering and Katz-Bassett's doctoral adviser. "We were very surprised by the results we got." The project got its name on purpose, and according to the researchers, they perform a service that is referred to as Internet astronomy. While the Hubble telescope monitors the black holes in the Universe, the software application does the similar task in Internet's infrastructure.