



Visualization of hosts infected by CodeRed worm on July 19, 2001

mpact

denial of service (DoS) attacks. Ability to track and visualize the spread of Internet worms, viruses, and other

Deploy additional skitter, CoralReef, and NeTraMet monitors

Establish macroscopic topology archive for community access to

measurements from 21 sources to over a million destinations, and passive trace data highly relevant real-world Internet data sets, including active topology for evolving workload characterization of an OC48 link at a major exchange point. Uniquely positioned to provide DARPA and the research community with

Customized CoralReef passive monitoring tools for use by DoD for both

START

data

operational and military/battlefield simulation use Collection of path specific global measurement data useful in analyses relevant

to the commercial Internet as well as to operations of a DOD network. For example: Comparisons between articulated routing policies and actual traffic flow

Calculus for analysis of IP-level topology & inter-domain (BGP) routing

· Methodology for identifying critical infrastructure hot-spots, exchange points and other topologically 'central' locations

New Ideas

 Developed methodology for ranking the relative importance for through Internet routing infrastructure anomalies such as high delays or the spread of the CodeRed worm • Use of walrus hyperbolic 3D visualization tool to show traffic Autonomous Systems (AS) seen on a topology sample

Internet routing geopolitical analysis and visualization

a Analysis results refute commonly held assumptions about Internet

NS root and gtld nameserver performance on a daily basis	main growth and routing dynamics
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Develop prototype hyperbolic viewer that can handle a million nodes or more
Refine methodology for identifying 'core' Internet nodes, prefixes, Autonomous Systems, or geographic regions
Make data analysis publicly available (passive, workload, routing) on website
Publish macroscopic topology data (Internet Topology Data Kit)
Publish macroscopic topology data (Internet Topology Data Kit) Develop methodology for identifying critical infrastructure hot- spots, exchange points, and other central resource locations
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Complete analysis and visualization of Internet core using continuously gathered skitter data

Cooperative Association for Internet Data Analysis / UCSD - Dr. K Claffy, PI

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