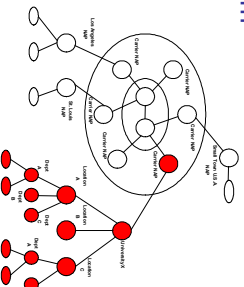


Internet Worm and Virus Protection with Extensible Networks

John W. Lockwood: lockwood@arl.wustl.edu, and the ARL Reconfigurable Networking Hardware Group: <http://www.arl.wustl.edu/arl/projects/fpx/reconfig.htm>

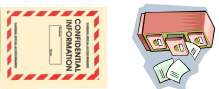
The Problem

- Computer virus infections are spreading
- New virus spread quickly through email, web, and peer-to-peer tools
- Confidential Data is leaking through networks
- Government secrets, personal data, and corporate information are stolen
- Internet infrastructure is at risk



Who Cares ?

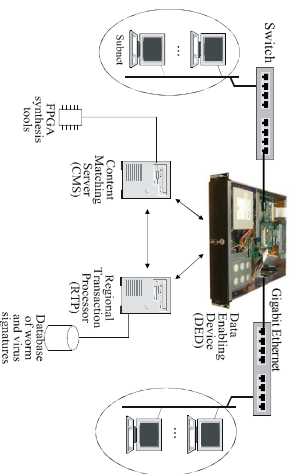
- Who cares about computer virus infections ?
 - People that own a business with a network
 - Organizations that use the Internet
- Who cares about confidential data leaks ?
 - Governments with classified secrets
 - Corporations with proprietary information



How can networks be made safe ?

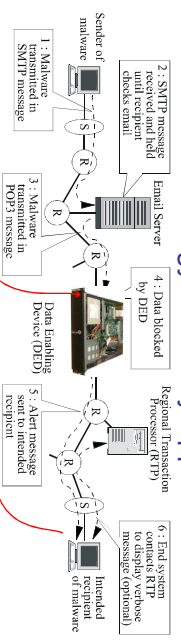
A device has been developed at Washington University that:

- Identifies & acts on content in Internet packets at high speed (Gigabits/second) without delay (real-time)
- Scans and blocks network traffic using reconfigurable hardware at speeds up to 100x faster than could be done in software
- Utilizes technology is compatible with Local and wide-area networks (Internet Protocol)

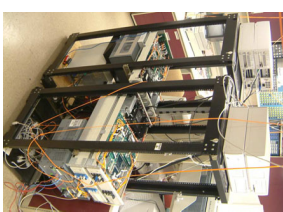
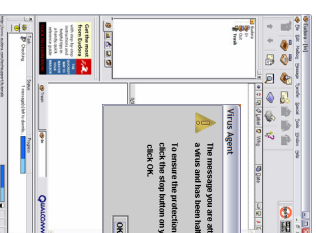


How it works: An automated design flow builds FPGA hardware that is dynamically deployed to scan and block malicious network content

Technology has Many Applications



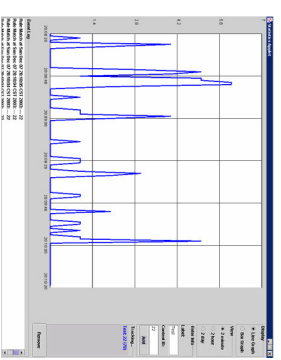
System has been tested with live traffic



Alerts sent to end users & network administrators



Intelligent gateways are easily deployed



Commercialization

Global Velocity, located in St. Louis MO, has an exclusive license to the high-speed network content scanning technology. They are actively commercializing the technology. Markets include governmental agencies, universities, and corporations for network infrastructure protection and intelligence applications.

<http://www.globalvelocity.info/>