

An Automated Internet Monitoring and Alerting System

Challenge

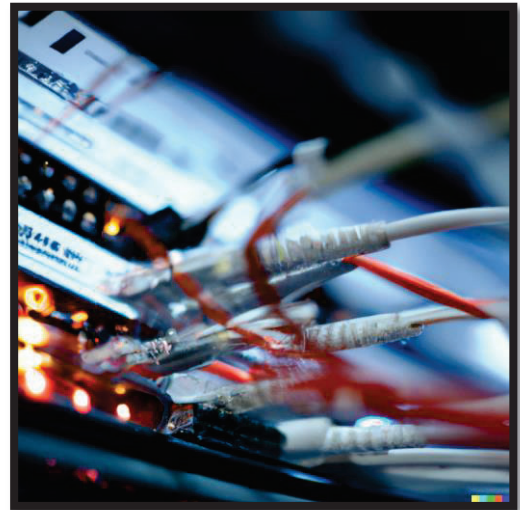
Cybersecurity has become an important safety concern for governments and individuals. Large networks are used by schools, companies and homes. However, these networks are vulnerable for external and internal attack. To secure the network, an automated Internet Monitoring and Alerting System must be implemented to analytically evaluate the threat.

Solution

The analytically capable alerting system was developed, which utilized the information from Border Gateway Protocol (BGP), an information exchange platform between IPs. An automated monitoring system is composed of three main events: disruptive event detection, which is followed by event classification, and finally, identification of the logical and geographical location. Notification for the end-users is either distributed by e-mails or RSS. This innovation utilizes tensor rank decomposition to routing dynamics, which provides significant origins of routes and destinations.

Benefits and Features

- Dynamic, near real-time automated system
- New decomposition method to routing dynamics



Market Potential / Applications

This invention has applications in monitoring large networks with many users (schools, libraries, etc.) and preventing malicious cyber-attacks.

Developments and Licensing Status

Status: Available

Commercial sponsor sought? Yes

Patent Status

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