

Multipath Routing Using Distributed Proxy Servers

Brett Wilson

Problem

- Modern Applications utilize single TCP connections to transfer data
 - Single connections could be subject to bottlenecks that severely limit available bandwidth
- Multipath routing has been proposed to increase aggregate data rate by providing multiple routes around bottlenecks

How to Implement Multipath Routing?

- Many Implementation Options
 - Network layer
 - Routers direct TCP packets across different routes
 - Transport and Application layer
 - Host application uses modifications to transport layer to route packets across multiple distinct connections
 - Using Proxy Servers
 - Develop proxy server software to intercept outgoing packets and distribute them across different routes