Brick and Mortar Enterprises

Nalini Elkins: Inside Products, Inc.
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What are Brick and Mortar enterprises?

- By and large, quite geographically dispersed
- Use Internet for Business: But Internet is NOT the Business
- Have multiple types of networks
- Have been computerized for 40 – 50 years
- Large IT staff
- Time to market / ROI / business
What kind of networks

• Campus LAN

• Private WAN

• Extranet (Business partner connections: private)

• Internet facing apps
Enterprise Operational Support Environment

One Internet Facing Application

2000 Total Applications
Middleware Troubleshooting Example
Data Center Routing protocols used

• OSPF

• EIGRP

• Some BGP

• RIP (not all that much)

• Static routes (actually maybe a fair amount)
Route Summarization

• Strategies to minimize LSAs with OSPF

• Use BGP internally to summarize

• Other routing protocols also summarize.

• This is our job to do!
Many “middle boxes”

• Layers of:
  • Load balancers
  • NATs
  • Firewalls
  • App servers
  • Web servers
  • Proxies

• Mainframe is back-end (quite often)
• Big databases
Applications

• From the stone age to the space age

• Thousands of applications

• Hard to convert

• Relational data bases used
Future

• SDN

• Containers / orchestration

• Hybrid cloud