

# The Paradigm shift



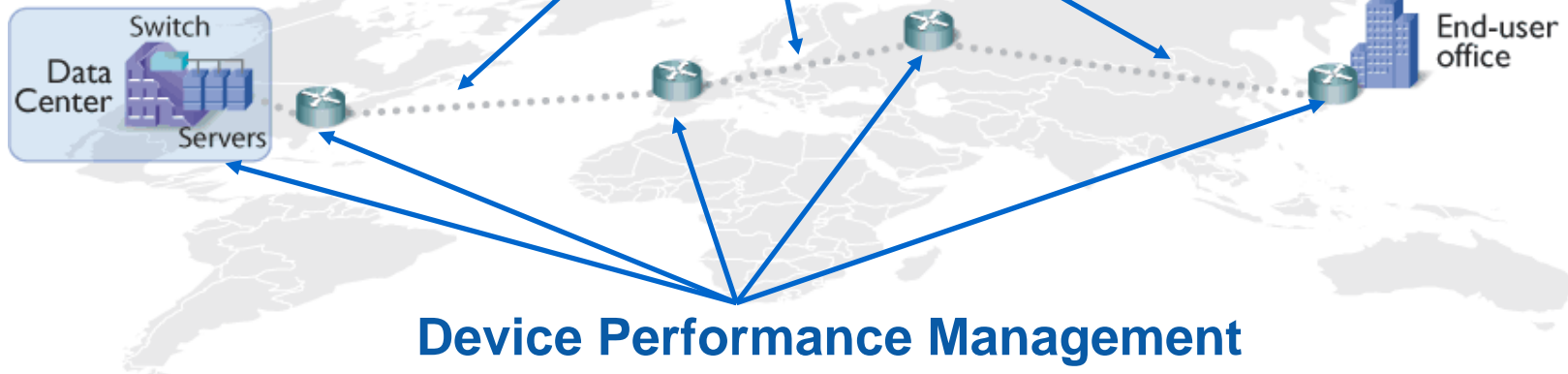
## NetQoS<sup>®</sup> Performance Center



### Response Time Monitoring



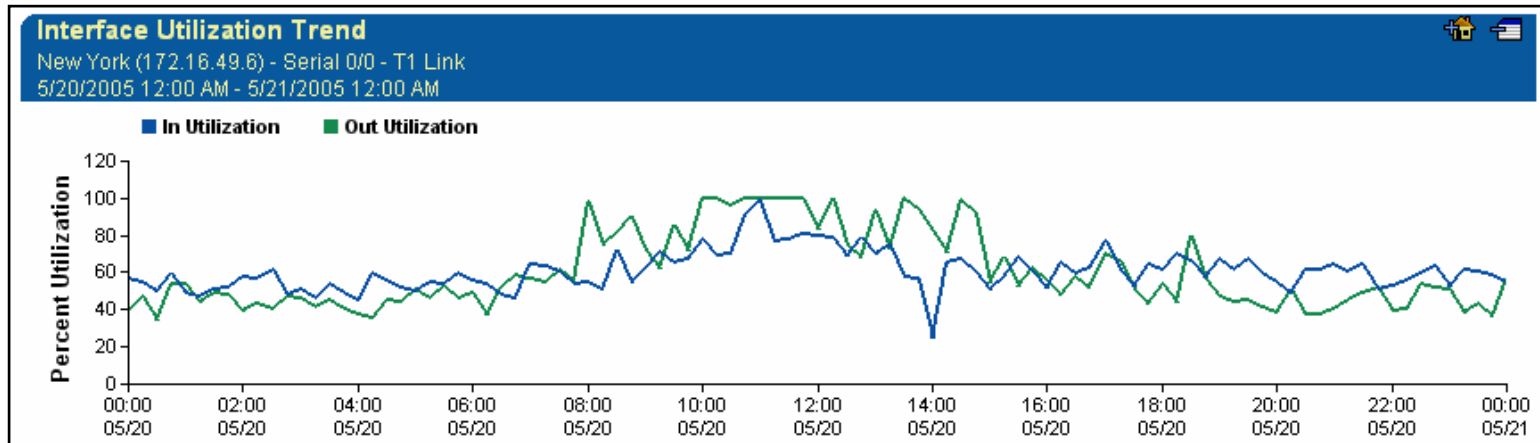
### Traffic Analysis



### Device Performance Management

# Utilization is not a proxy for performance

- Is this a problem?



- Start with response time
  - How is the network delivering the application to the end-user?
- Performance is relative – you have to baseline!
  - Understand normal performance
  - Alert when deviations from the norm occur
  - Automatically investigate the cause of performance problems

# Use Case



HTTP is the top application on the link

83% of the HTTP traffic is comprised of users in Singapore accessing the U.S. Web Proxy Server

The link is over-utilized

**Custom Bytes Out**  
Houston (10.2.176.127)::Serial0/0.5  
2005-05-20 00:00 CDT - 2005-05-21 00:00 CDT  
1.54 Mbps / 1.54 Mbps

Application	Bytes	Percentage
http (*.ip.tcp.80)	4.69 Gbytes	70.59%
ftp-data (*.ip.tcp.20)	234.63 Mbytes	3.53%
netbios-ssn (*.ip.tcp.139)	201.03 Mbytes	3.03%
smtp (*.ip.tcp.25)	176.13 Mbytes	2.65%
https (*.ip.tcp.443)	114.10 Mbytes	1.72%
Voice (*.ip.udp.63003)	106.50 Mbytes	1.60%
windows_media (*.ip.tcp.1755)	100.46 Mbytes	1.51%
ms-dns (*.ip.tcp.445)	98.48 Mbytes	1.48%
dns (*.ip.udp.53)	81.08 Mbytes	1.22%
pop3 (*.ip.tcp.110)	79.26 Mbytes	1.19%
Other	761.82 Mbytes	11.47%

Totals (Gbytes): 6.64 IP: 5.04 (75.95%) TCP: 4.68 (70.47%) UDP: 0.36 (5.47%)

**Custom Bytes From**  
Houston (10.2.176.127)::Serial0/0.5  
http (\*.ip.tcp)  
2005-05-20 00:00 CDT - 2005-05-21 00:00 CDT  
1.54 Mbps / 1.54 Mbps

Source	Bytes	Percentage
US Web Proxy Server	1.80 Gbytes	82.67%
sqltlnh.houcom.net	110.62 Mbytes	5.09%
smtp4b.native.com	59.10 Mbytes	2.72%
192.168.42.75	31.99 Mbytes	1.47%
fdapps.frwdlink.net	31.55 Mbytes	1.45%
CRM Local	26.01 Mbytes	1.20%
linuxweb.singaporedc.com	7.20 Mbytes	0.33%
ERP Server	6.45 Mbytes	0.30%
192.168.147.23	5.53 Mbytes	0.25%
10.1.146.174	3.96 Mbytes	0.18%
Other	94.51 Mbytes	4.35%
Total	2.17 Gbytes	

**Interface Utilization**

Interface	In	Out	In %	Out %	Total %
Houston (10.2.176.127)::POS0/1 - OC-3	155.00 M	74.90 %	59.91 %	74.90 %	13.81 %
London (10.1.176.127)::VLAN 101 - Finance	1.00 G	55.30 %	73.39 %	73.39 %	13.81 %
New York (172.16.49.6)::Serial 0/0 - T1 Link	1.54 M	62.75 %	83.77 %	83.77 %	0.10 %

# Putting it all together

