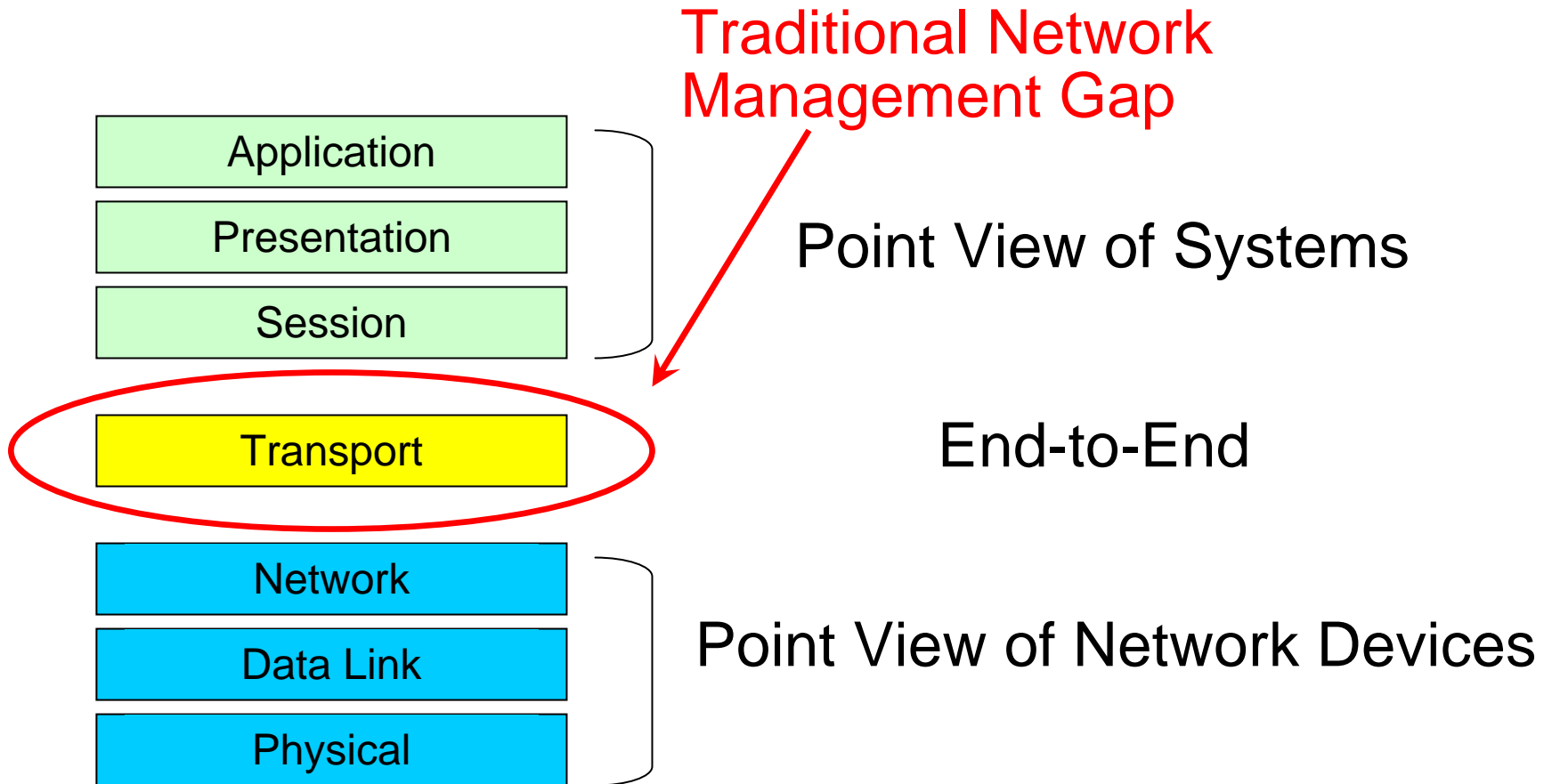


Performance-Centric Management

Joel Trammell
NetQoS, CEO

NetWorld+Interop 2005
Leveraging Existing Management Systems for Performance Management
May 3, 2005
11:30am – 12:30pm

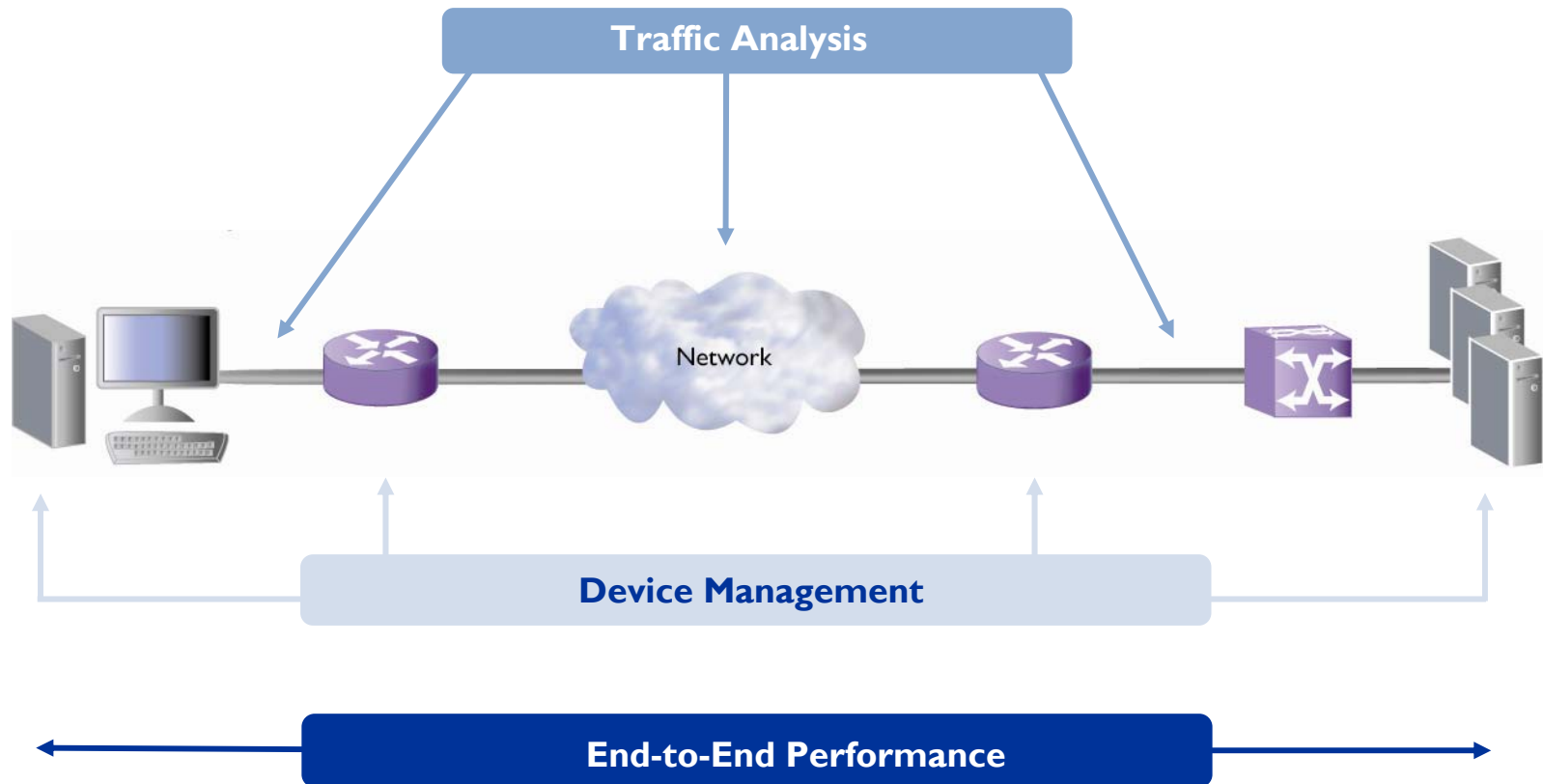
Network Layers



Performance-Centric Management



Three Layer View of Infrastructure Management



Three Layer View

- ◆ End-to-End
 - Response Time (Latency)
 - Jitter (Real-Time Applications)
 - Volume by User/Application
- ◆ Traffic Flows – Individual Link
 - Link Utilization
 - Volume by Application
 - Volume by Host
 - Packet Flows
- ◆ Device Status – Individual Device
 - Routers (CPU, Memory, Buffers)
 - Servers (CPU, Memory, Processes)

End-to-End Performance

- ◆ Rapidly Isolate Problems
 - Network
 - Server
 - Application
- ◆ Assign Correct Resources
- ◆ Measure the Impact of Changes
 - Effect of QoS Implementations
 - Effect of Compression, Caching, etc.

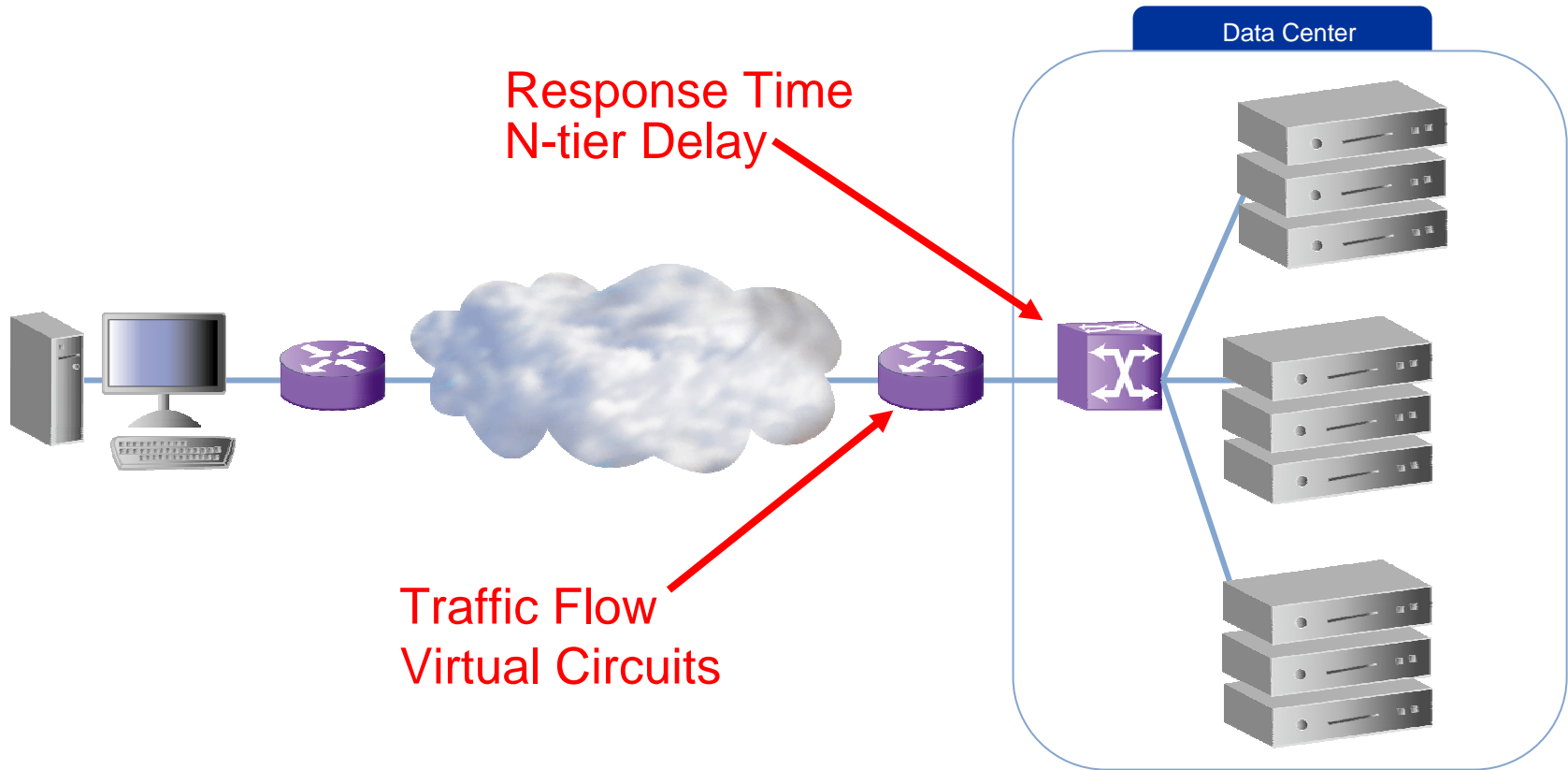
Traffic Flow Analysis

- ◆ Identify Applications
 - Remove Unwanted Traffic
 - Schedule Applications to Off-Hours
 - Understand Key Applications
 - Properly Locate Servers
- ◆ Quantify Impact of Viruses
- ◆ Properly Size Links
 - Identify Underutilized Links
 - Predict and Plan for Future Growth

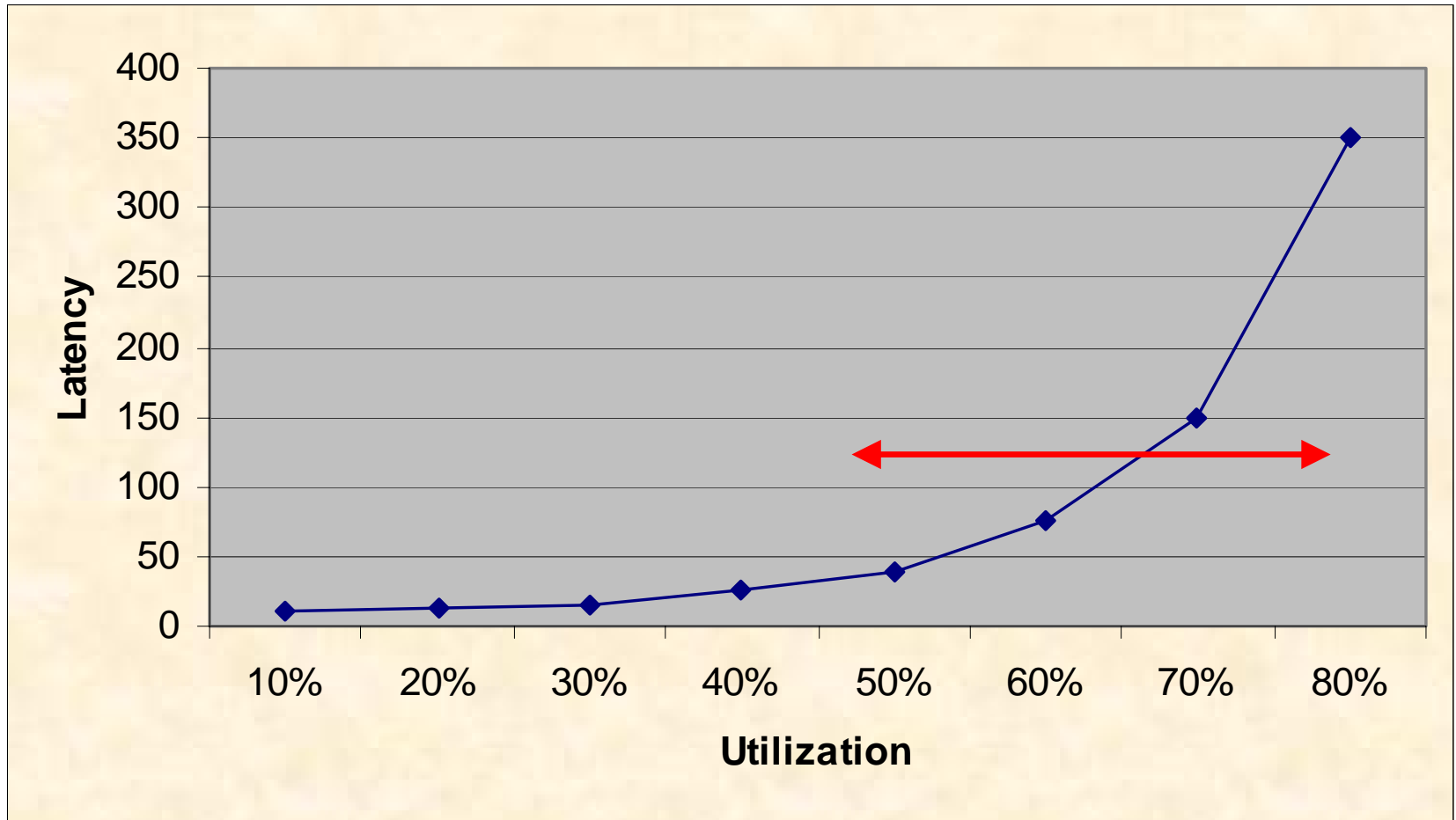
Device Status

- ◆ Availability
- ◆ Properly Size Devices
- ◆ Identify Device Bottlenecks
- ◆ Identify Layer 1-4 Errors

Instrumentation Points



Delay vs. Utilization



Thank you

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