Application Level QoS across Networks and IT
- Enterprise Service View

John Wittgreffe
How can I assure the performance of my business applications …

... end to end across complex network, computing, and storage infrastructure?
Measure user experience of the application
Control to prevent performance problems

Control: e.g. Application Level QoS

Application Quality Score

Excellent
Good
Fair
Poor
Not Working

Time
### Application Quality Measures

**A “MOS” for any application based on underlying performance statistics**

**b) This must be complemented by examining the payload for correctness**

<table>
<thead>
<tr>
<th>Application</th>
<th>Criticality</th>
<th>Type</th>
<th>BW (kbps)</th>
<th>MOS Score</th>
<th>Delay (ms)</th>
<th>Jitter (ms)</th>
<th>Loss (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VoIP</td>
<td>HIGH</td>
<td>Real Time</td>
<td>n/a</td>
<td>20</td>
<td>100 - 300</td>
<td>n/a</td>
<td>1 - 5</td>
</tr>
<tr>
<td>ORACLE</td>
<td>HIGH</td>
<td>Transac.</td>
<td>n/a</td>
<td>10</td>
<td>100 - 300</td>
<td>n/a</td>
<td>1 - 5</td>
</tr>
<tr>
<td>LDAP</td>
<td>MEDIUM</td>
<td>Data Trans.</td>
<td>n/a</td>
<td>20</td>
<td>200 - 1000</td>
<td>n/a</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Web</td>
<td>MEDIUM</td>
<td>Data Trans.</td>
<td>n/a</td>
<td>20</td>
<td>200 - 1000</td>
<td>n/a</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Other</td>
<td>MEDIUM</td>
<td>Data Trans.</td>
<td>n/a</td>
<td>10</td>
<td>200 - 1000</td>
<td>n/a</td>
<td>1 - 5</td>
</tr>
<tr>
<td>FTP</td>
<td>LOW</td>
<td>Data Trans.</td>
<td>n/a</td>
<td>25</td>
<td>n/a</td>
<td>n/a</td>
<td>1 - 10</td>
</tr>
<tr>
<td>NETBIOS</td>
<td>LOW</td>
<td>Data Trans.</td>
<td>n/a</td>
<td>50</td>
<td>n/a</td>
<td>n/a</td>
<td>1 - 10</td>
</tr>
<tr>
<td>EMAIL</td>
<td>LOW</td>
<td>Data Trans.</td>
<td>n/a</td>
<td>25</td>
<td>n/a</td>
<td>n/a</td>
<td>1 - 10</td>
</tr>
</tbody>
</table>

**Note:**
- SAP: Transac. (TOP) with MOS Score 50, Delay 100-300ms, Jitter n/a, Loss 1-3%.
With detailed application performance audit, real time monitoring, trending, and diagnosis
Application-Level SLA roadmap

- **MPLS IP-VPN with Classes of Service**
  - Standard IP-VPN products
  - 2008

- **Application Assured Infrastructure**
  - Now - Understanding IT, Network, & Application Performance
  - 2008

- **Application Optimisation Services**
  - Now - Real time Optimisation of apps across NETWORKS
  - 2008

- **Network on Demand**
  - Web 21C prototype
  - 2008

- **NW and IT on Demand**
  - Web 21C prototype
  - 2008

- **Process Optimisation**
  - Lab Prototype
  - 2008

*Adastral Park Demo only - delivery dates not set*
MORE TECHNICAL DETAILS AT:

http://www.btplc.com/Innovation/Journal/

“Service Oriented Infrastructure” Volume 1

NOW DEMONSTRATIONS

• Application Level QoS in the Network and Application Acceleration
• Application Level QoS over Network and IT
• Application Level QoS relating to business process KPIs
Thank you