Value of P2P Web vs. Client–Server Web

Greg Bolcer
Endeavors Technology, Inc.
gbolcer@endeavors.com
Traditional Network Architecture

- HTTP can be both P2P & C/S
- C/S is just the most widely deployed architecture

“All people seem to need data programming”

<table>
<thead>
<tr>
<th>Layer</th>
<th>Protocols</th>
<th>Applications</th>
<th>Messages</th>
<th>Transactions</th>
<th>Segments</th>
<th>Packets</th>
<th>Frames</th>
<th>Bits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Layer</td>
<td>HTTP</td>
<td>Web/HTTP, WebDAV, FTP</td>
<td>format, encryption, compression</td>
<td>X.25, RPC, TCP/IP</td>
<td>WWW TCP/IP connections</td>
<td>routing, sending, unreliable</td>
<td>802.2, HDLC, SDLC</td>
<td>802.2, HDLC, SDLC</td>
</tr>
<tr>
<td>Presentation Layer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Session Layer</td>
<td>TCP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport Layer</td>
<td>IP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network Layer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data Link Layer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Layer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
P2P Network Architecture

- P2P Web succeeds where C/S Web solutions are *socially* unpalatable or *politically* unviable

**P2P benefits**

- Ideological Layer
- Political Layer
- Social Layer
- Application Layer
  - HTTP
- Presentation Layer
- Session Layer
- Transport Layer
  - TCP
- Network Layer
  - IP
- Data Link Layer
- Physical Layer

**OSI**

- Philosophy: dissent, institutions
- Organizations: policies, procedures, processes
- Groups: teaming, naming, trust boundaries
- Applications: Web/HTTP, WebDAV, FTP
- Messages: format, encryption, compression
- Transactions: X.25, RPC, TCP/IP
- Segments: WWW TCP/IP connections
- Packets: routing, sending, unreliable
- Frames: 802.2, HDLC, SDLC
- Bits: 802.2, HDLC, SDLC

©2002 Endeavors Technology