Industrial UC Applications

Results of Group Work at Dagstuhl Retreat

September 10, 2001

General statements

• How to discuss the business implications of UC without knowing exactly what UC is?
• Up to now, UC research is clearly technological driven
• Technology adoption as core challenge
• What is business different from home / education / public space etc.?
### UC as a tool to streamline business processes

**Digital/virtual world (“bits”)**
- Inter and cross-company information systems (e.g. ERP systems)
- Local, regional and global communication networks (e.g. Internet)

**Physical/real world (“atoms”)**
- Human Beings
- Products
- Production means

<table>
<thead>
<tr>
<th>Human intervention required</th>
<th>No human intervention required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td></td>
</tr>
</tbody>
</table>

Source: Jointly developed with Intellion AG

### UC Business Apps

<table>
<thead>
<tr>
<th>Year</th>
<th>Only products with source verification sell</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Years</td>
<td></td>
</tr>
<tr>
<td>5 Years</td>
<td>Products with source verification sell to higher margins</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industry</th>
<th>Military</th>
<th>Automotive</th>
<th>Retail</th>
<th>Logistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Process</td>
<td>Supply Chain Management</td>
<td>Manufacturing</td>
<td>Maintenance / Repair</td>
<td>Quality Management</td>
</tr>
<tr>
<td>Business Function</td>
<td>Track&amp;Trace</td>
<td>Quality Assurance</td>
<td>...</td>
<td></td>
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<table>
<thead>
<tr>
<th>Technology</th>
<th>UC</th>
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</table>
Challenges

- Political
  - Standards such as RFID frequencies
- Technological
  - Scalability of reading
  - Energy consumption
  - Security
  - Infrastructure
- Economical
  - Cost of tags, readers and sensors
- Environmental
  - Radiation
  - Tag recycling