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

Human intervention required  No human intervention required

Source: Jointly developed with Intellion AG

UC Business Apps

<table>
<thead>
<tr>
<th>10 Years</th>
<th>Only products with source verification sell</th>
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<tr>
<td>5 Years</td>
<td>Products with source verification sell to higher margins</td>
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<table>
<thead>
<tr>
<th>Industry</th>
<th>Military</th>
<th>Automotive</th>
<th>Retail</th>
<th>Logistics</th>
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<tr>
<th>Business Process</th>
<th>Supply Chain Management</th>
<th>Manufacturing</th>
<th>Maintenance &amp; Repair</th>
<th>Quality Management</th>
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<tr>
<th>Business Function</th>
<th>Track&amp;Trace</th>
<th>Quality Assurance</th>
<th>...</th>
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<thead>
<tr>
<th>Technology</th>
<th>UC</th>
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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