Partnership builds success

Philips Semiconductors RFID Implementation Project Success Story

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Agenda

1. A business-driven RFID Solutions
2. Approach
3. RFID-Enabled Business Process
4. Solutions & Benefits
Philips Semiconductors RFID Project

- The company engaged IBM Business Consulting Services to initiate a proof of concept of the benefits of RFID in the supply chain.

- The ten month proof of concept included choosing vendors, reengineering thirteen processes, the complete design, build and test of custom components, plus training and project management.

- The solution incorporated IBM RFID Middleware software integrated with legacy warehouse and order management systems.

- Asia’s first end-to-end RFID enabled supply chain
Philips Semiconductor - a business-driven RFID solution

Assess
- Business Case Assessment
- RFID Feasibility Study
- RFID Execution Roadmap

Plan & Design
- RFID Site Survey
- RFID Technical Solution Design
- RFID Partner Selection
- Business Process Transformation

Pilot
- Define Pilot Requirements
- Build Pilot
- Test Pilot
- Pilot Oversight
- Results Analysis

Implement
- Process Transformation
- Application Integration and Implementation
- Testing
- Training
- Change Management
- RFID Integration Testing

Run
- Maintenance
- On Site Services
- Upgrade
Specific business case dynamics will differ by industry, company and product

- Current technology in use
  - Current level of automation and marginal benefits of moving to RFID
  - Degree of integration required with back-end systems
  - Ability to handle volume of real-time data generated by RFID readers

- Cost and other characteristics (e.g., shelf-life, theft) of product relative to cost of RFID technology
  - E.g., expensive electronics components will likely have much higher ROI

- Ability to leverage investment across multiple applications and potential future applications
  - E.g., investments for internal inventory management may be used in future external supply chain applications as other industry players adopt RFID

- Operational effectiveness of current business processes
  - E.g., ability to analyze generated data and make decisions accordingly

- Number of partners involved
  - E.g., degree of outsourcing of various stages of value chain, such as manufacturing, packaging, etc.

- Complexity of manufacturing the product
  - E.g., number of steps, handling and storage requirements
Philips RFID Enabled Processes

KaoShiung, Taiwan

Receipt → Check-in → Putaway → Pick → Pack Check → Tag RFID-I → Create RFID-O → Ship → Deliver

Hong Kong Delivery Center

Receipt → Check-in → Putaway → Pick → Check → Create RFID-O → Pack → Ship → Deliver

Inbound  Outbound

RFID application
Sample RFID-enabled business process at Philips’ manufacturing plant Kaoshiung, Taiwan

Existing 2D reader → [Diagram of process] → Zebra Z2844

Inner box Tag

Receipt → Check-in → Putaway → Pick → Check → Label → Pack → Ship → Delivery
Sample RFID-enabled business process at Hong Kong Delivery Center

RFID reader

Receipt | Check-in | Putaway | Pick | Check | Label | Pack | Ship | Delivery
Philips Semiconductor – Partnership builds success

- Connecting to entire supply chain to improve customer service
  - Fast product content validation, real time chase and track product movement to enhance supply chain visibility
  - Cycle time reduction
- Improve working efficiency in Supply Chain Execution
  - Less manual intervention, cross-checking, repackaging
  - Entire cartons scanned without slowing down operations
- Better space utilization
  - Stock and locations are more efficiently managed in real time allowing better shipment planning
- Confirm feasibility and value of RFID technology.
- Success of pilot is leading to Full roll-out of the project is considered:
  - To support customers’ plans to integrate RFID in their supply chain management processes
  - To cover Philip’s 5 manufacturing facilities and three distribution centres in Asia Pacific, Europe and the United States
Thank You