



GS1 EPC/RFID Technology Group Meeting 2

21 February 2007

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Agenda – Afternoon Session

Afternoon Session

1:00pm	Lunch ...in parallel SCKC RFID / Smartshelf tours	
2:00pm	Welcome	Mark Fuller, GS1 COO
2:30pm	Local Progress & Technical Update	Sue Schmid, GS1 GM Standards
3:00pm	EPC Strategy & Framework	Richard Jones, GS1 GM Ser Del Tony Edwards, Director, RFIDEas
3:30pm	Developing the Business Case & Forward Agenda	Mark Fuller, GS1 COO Peter Chambers, GS1 Mgr Projects
4:00pm	Solution Partner Updates	Joseli Munive, GS1 Alliances Manager
4:30pm	Open Forum Discussion	All
5:00pm	Close	





Guidelines for Introducing EPC/RFID

EPC/RFID Technical Group, 21/02/07

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Guidelines for Introducing EPC/RFID

- Strategic Guidelines
- Tactical Guidelines, per application
 1. Define business requirements
 2. Prepare business case
 3. Identify technology/solution providers
 4. Define & conduct environmental testing
 5. Develop implementation plan



Strategic Guidelines

- Topics presented to EPC/RFID Advisory Group
 1. Educate key executives, managers, potential users & IT
 2. Define scope of RFID for your organisation
 3. Identify top applications of RFID for your organisation
 4. Develop corporate business strategy for RFID
 5. Develop corporate guidelines/policy for RFID



Tactical Guidelines, Per Application



1. Business Requirements

1. Document environments & processes in which tags needs to be read & written, including third party operations
2. Define tag data
3. Identify type of RFID reader required per environment/process
 - Fixed-point: doorway, chokepoint, portal, conveyor, desktop...
 - Hand-held
 - Vehicle-mounted
4. Define other critical requirements, for example:
 - Using bar codes in some situations
 - Using wide area wireless communications in some situations
5. Define functional requirements for tags & readers
 - Maximum tag dimensions
 - Imagers in hand-held readers
 - Vehicle-mount reading both automatic & manual





2. Business Case

- Prepare business case
 - As per your organisation's requirements
 - Competitors' position may be crucial



3. Identify Technology/Solution providers

- The better information potential providers are given, the better they are able to respond
 - Business requirements critical, photos generally valuable
- Identification of potential suppliers important
 - Ideally (but not mandatory) experience with RFID in the application
- Require product information in specific form
 - Minimise inconsistencies & effort in evaluating/comparing responses
- Be wary of responses like:
 - *“We can develop a solution in 40 days at our European test facility”*
 - *“The reader has been released in US & will be available in AU in Q2”*
 - *“Our proprietary technology is the industry de facto standard”*
- Selection criteria beyond RFID & supplier capabilities
 - Financial, local resources & expertise, system integration, support...



4. Environmental Testing

- RFID often does not provide off-the-shelf solutions & existing users' references may be of limited value due to variations in:
 - Materials tagged
 - Environments & processes in which tags need to be read & written
- RFID often proposed where reasonable doubt whether desired performance can be met in *some* environments & operations
- **Tips for testing RFID...**
- Set acceptable performance benchmarks per environment/process
- Test a variety of environments & processes
 - Using (re-designed) processes
 - Future processing requirements when practical
- Involve relevant business partners where practical
- Tests should determine locations & configurations of readers & antennas
 - May also need to ascertain location(s) for tags



4. Environmental Testing

- The more times a test is conducted, the more accurate the result
 - Some tests repeated quickly: 200 cartons past a conveyor reader 50 times
 - Other tests very time consuming: tags in mail containers
 - Tests only done 5 times each due to variations:
 - Number of tags, number & orientation of containers, forklift speeds...
- Tests need to be closely observed to validate execution
- Record all relevant information, per iteration of each test
 - Dates, time, participants
 - Equipment locations & settings, read results
- Benchmarks not met: proposed technology may still be viable, considering:
 - The environments & processes in which benchmarks were met or exceeded
 - Whether technology can be modified to meet benchmarks
 - Whether alternative/supplementary processing enables a complete solution



5. Implementation Planning

- Phase implementation where practical, for example:
 - Process A at 3 sites, then Processes B & C at same sites
 - Process A, B & C at 6 sites, then at balance of sites
- Equipment installation
 - Conduct comprehensive surveys for readers & antennas
 - Every fixed location & each type of vehicle
 - Test every reader & groups of adjacent readers
 - Record each installation (fittings, configurations & issues), take photos
- Infrastructure
 - Existing data capture, data communications & systems
 - Integration with existing applications & new applications
 - Edgware, middleware & data filtering, security & communications
 - Migration, for example:
 - GS1 bar coding > EPC Tag Data > EPCglobal Network





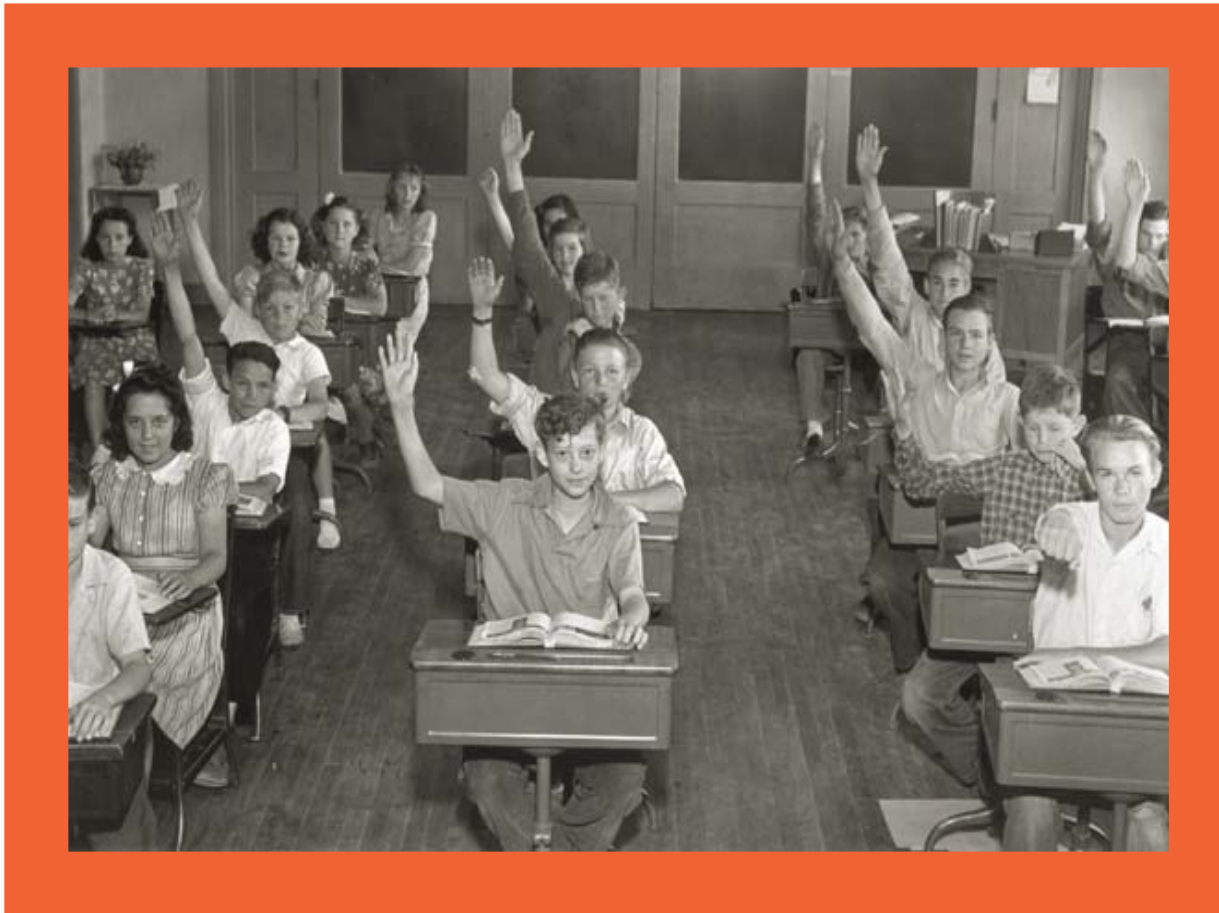
5. Implementation Planning

- Initial tagging of assets
 - In-house, for example: PCs, medical equipment, forklifts, livestock...
 - Often one-time activity done in days
 - Distributed: for example: stillages, totes, library materials...
 - May be at 100s/1000s of users
 - Consider third party tagging
 - Can take many months, start tagging as soon as practical
- Re-design processes
 - Including exceptions, for example, object not tagged & tag dead
- Tag management procedures
- Equipment monitoring & maintenance procedures
- Education & training
 - Users, business partners & consumers
 - General: technology & generic benefits
 - Application: processes & specific benefits





RFID Tactics: Q & A



Making our Vision a Reality



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