



# HP's RFID Privacy Program

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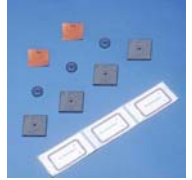


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## What is RFID?



- RFID (Radio Frequency Identification) tag/label is a tag that at least has an identification number that can be electronically read at a distance even when not visible
- RFID tags have few problems of orientation and obscuration when compared with barcodes, magnetic stripes, etc.
  - Thus, can be used for more than just tracking or payment
- RFID tags can include electronic chips, storage, local power source, and other functionalities that make them very versatile
- RFID systems are comprised of tags, reader/writers to identify and communicate with the tags, software and a controller that manages the information interface with a computer system



Sources: ABI, VDC, Philips, IDTechEx, HP Internal

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## Why Do RFID??



"Global shrinkage in the Consumer Packaged Goods supply chain is \$60 billion yearly."

*IDTechEx*

"75% of the cost of a retail product is getting it there."

*MIT*

"Stockouts at retailers cost six percent of sales. One third of these are items in the retailer's store."

*Procter & Gamble*

"Silicon chips are the vacuum tubes of the RFID industry, [printed electronics will be it]."

*Kevin Ashton, Exec Director Auto-ID Center*

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## RFID Potential Benefits



### Manufacturers/Retailers

- Retain Customers
- Improve Supply Chain Efficiency
  - Reducing labor
  - Increase Supply Chain velocity
  - increasing first pass accuracy
  - Lessen Supply Chain risk
- Improve Data Collection
  - Reduces effort & cost to identify item
  - improve overall Supply Chain visibility
  - reduce second guessing of events

### Consumer:

- Reduced costs
- Reduced out of stock
- Faster, better targeted product recalls
- Faster service
- Reduced drug fraud/incorrect prescriptions
- Better food supply management

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## Current Limitations of RFID



- Difficult to read through metal or liquids
- Works at limited ranges (a few meters at best)
- Can not read through walls/barriers
- Performance degraded in electronically noisy environments
- Limited write capability (model and serial number)
- High capital costs
- ROI is yet to be demonstrated
- Data use/storage an issue
- Installations difficult



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## What Does HP Stand for?



### Rules from the Garage

- Believe you can change the world
- Radical ideas are not bad ideas
- Invent different ways of working
- Believe that together we can do anything
- Invent

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# HP Privacy Principles



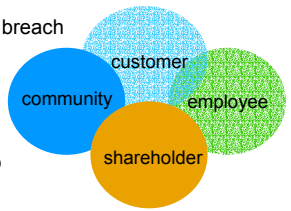
- support the "fair information practices"
- give customers control over their own personal data
- provide customers with choices that enhance trust and, as a result, grow the business
- put customers in the lead to determine their relationship with hp
- enforce the highest integrity and compliance in internal practices, and with all vendors and suppliers
- support trust relationship with employees



# Business drivers for promoting privacy



- Minimizes risk of **compliance** breach
- Builds the **brand**
- Enhances **trust**
- Reinforces **global citizenship**



**Privacy = Trust = Revenue**

# HP's RFID Privacy Efforts

- Formally invited to join Core Team –Nov 03
- Privacy presentation to Core Team Dec 03
- Joined EPC-Global Privacy group Feb 04
- Weekly internal consultations
- Developed internal policy position
- Working with NGO's to educate governments
- Periodic meetings with partners/customers
- Present at the Wal\*Mart rollout Apr 04

# HP's RFID Privacy Approach

- Consumers should be given notice about the presence of RFID tags
- Consumers should have the choice about removing or deactivating tags
- Must be a practical & secure way to offer choices for linking PII with RFID data
- Organizations that, with permission, collect and store PII with RFID data must take appropriate security measures
- Businesses need to do more to educate the public on uses/benefits of RFID
- We need to foster constructive solutions to privacy concerns

# HP's RFID Privacy Program Summary

- We are a technology company with a long solid reputation for innovation and privacy
- Privacy is a legitimate concern of our customers and we will address these concerns in a pro-active and positive manner
- We are implementing RFID in our own manufacturing & distribution operations and integrating privacy standards into those operations
- We will lead by example in the privacy space
- We can and will be a positive force to lead the RFID privacy discussion
- Our internal experience has given us a competitive edge

# Q & A



