



***EPC* FIELD TEST**

BOARD OF OVERSEERS MEETING

NOVEMBER 14-15, 2001

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OBJECTIVES

**OBJECTIVE OF THE FIELD TEST IS
TO DEMONSTRATE THE POWER
AND POTENTIAL OF *EPC* IN THE
REAL WORLD ACROSS THE
SUPPLY CHAIN**



ACTION STANDARD

- **PROVE TECHNICAL FEASIBILITY**

- Install, debug and evaluate effectiveness of Auto-ID Center system and software
- Assess robustness of the system with increased demand

- **DEVELOP A BUSINESS CASE**



BACKGROUND

•NOTE

- Today we will review:
 - Status of the field test
 - What has happened
 - Future steps
 - no specific details of what we have learned



BACKGROUND

• THREE PHASES:

• Phase I: Pallet level

- Technical feasibility of system software using existing reader and tag technology

• Phase II: Pallet and case level

- Use existing technology to check robustness of system

• Phase III: Pallet, case and unit level

- Introduce new technology. Cheap Chips and Low Cost Readers.



FIELD TEST SPONSORS STATUS

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PARTICIPATING

END USER	TECHNOLOGY
<p>CHEP INTERNATIONAL PAPER JOHNSON & JOHNSON PHILIP MORRIS GROUP PROCTER & GAMBLE THE GILLETTE COMPANY UNILEVER WAL-MART WESTVACO YFY COCA COLA DAI NIPPON PRINT UCC /EAN consulting only (non paying)</p>	<p>INVENSYS NCR SAP SENSORMATIC SUN MICROSYSTEMS ALIEN MARKEM RAFSEC SAVI CHECKPOINT PHILIPS</p>



STATUS - PHASE I

- **TIMING: OCTOBER 2001-JANUARY 2002**
- **EXISTING READER AND TAG TECHNOLOGY**
- **IMPLEMENTATION COMPLETE (4 SITES)**
 - Pilot test facility, Bentonville, Ak.
 - Auto-ID Center, Cambridge Ma.
 - P&G Factory, Cape Girardeau, Mo.
 - Sam's Club, Tulsa. Ok.



STATUS - PHASE I

- **DEVELOPMENT COMPLETE AND FUNCTIONING ON:**

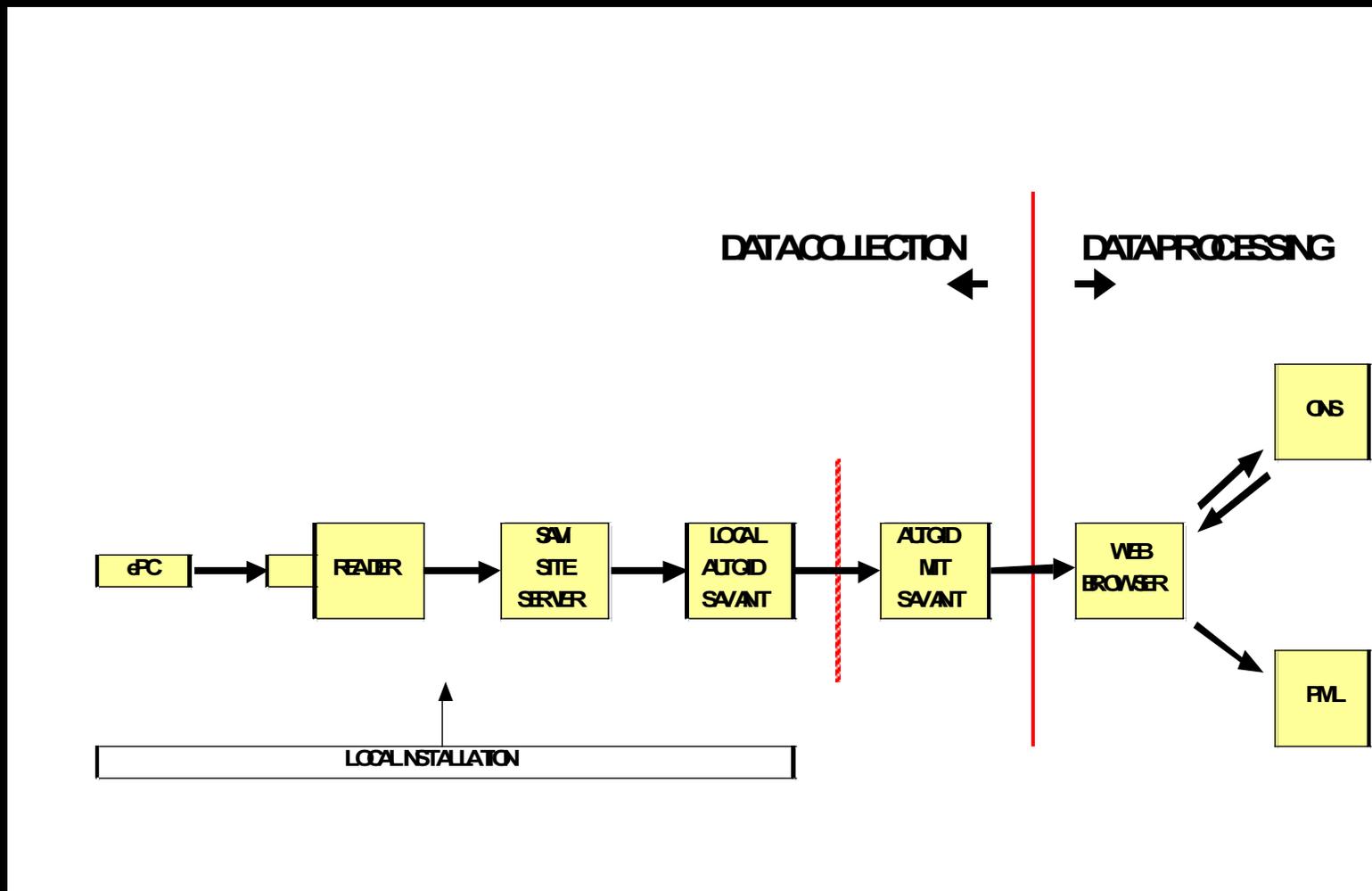
- **ONS (Object Name Service)**
- **Savant**
- **Software**

- **WORK CONTINUES ON DEVELOPMENT OF PML (PHYSICAL MARK UP LANGUAGE)**

- **HARDWARE SYSTEM LIMITED TO EXISTING TECHNOLOGY**



PHASE I - STATUS

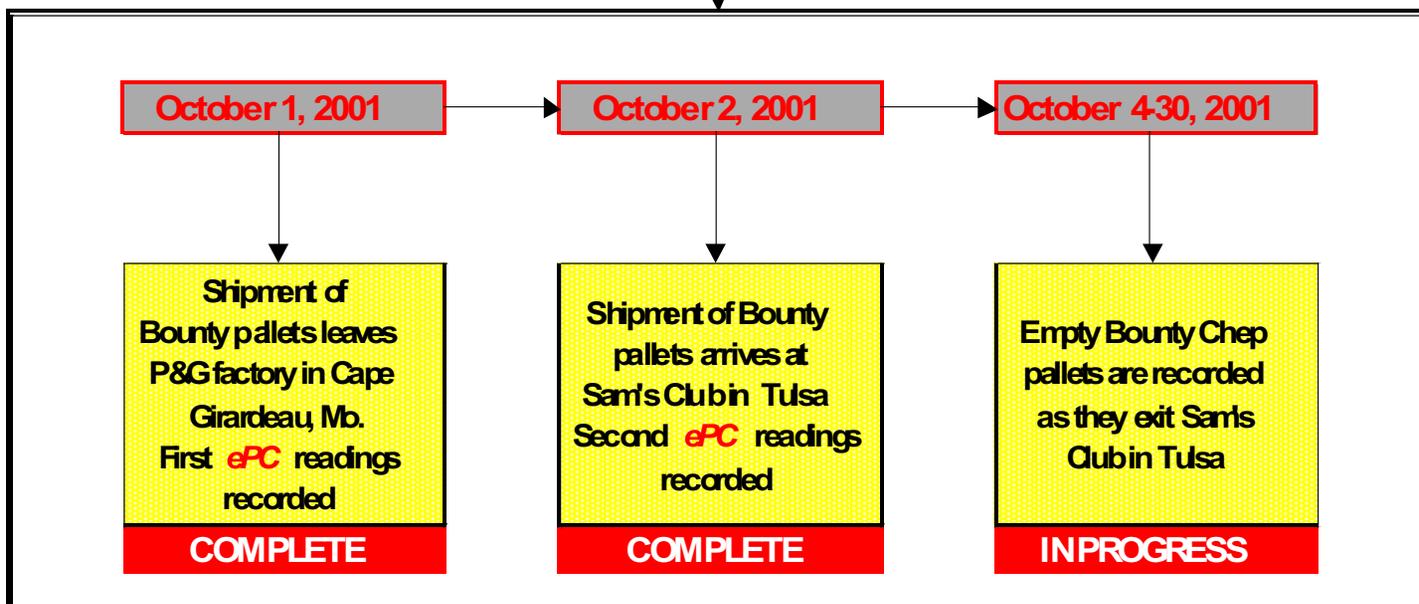




HISTORY MADE

"THE BEEP HEARD AROUND THE WORLD"

K. Ashton



Since October 1, over 2 million reads have been received

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PROGRAM STATUS UPDATE

• ALL PARTICIPATING SPONSORS ARE NOW ABLE TO VIEW DATA BY LOGGING IN:

- URL: for Field Test sponsors only
- USER NAME: Confidential
- PASSWORD: Confidential

If a Field Test sponsor does not have the required information please contact S. Albano

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SCREEN INFORMATION

Location	Reader	EPC	Mfg	Product	Icon	Date/Time
	No					
Cape Girardeau	FF03	#	Chep	Pallet		10/1/01 -10:30

Note: date will appear many times. Readers are constantly reading



PROGRAM STATUS UPDATE

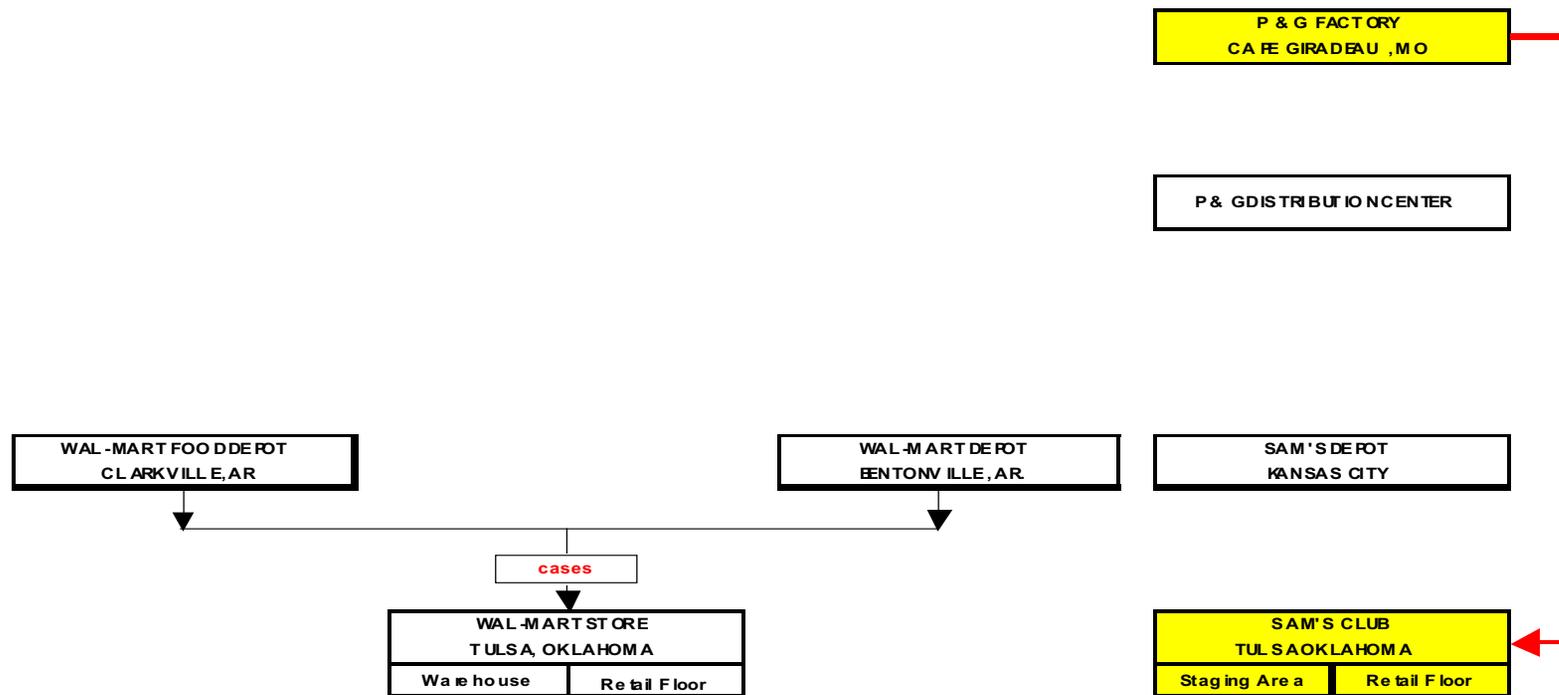
Phase I

P&G Cape Girardeau Factory and Sam's Club, Tulsa are in play on a weekly basis.

	P&G Cape Girardeau Exit door		Sam's Club Tulsa Ok		Comments
	Number of pallets	Number of reads	In door	Exit door	
1-Oct	26*	3252tags 25/26 pallets	3652tags 2226 pallets**	none to date	*34 actual pallets shipped 8 had no tags **Saiir up grade system
11-Oct	30	NO reads power outage	59/60 tags* 30/30 pallets	none to date	*One damaged tag Saiir send personnel to debug problem
17-Oct	22	NO reads power outage	31/32tags 16/16 pallets	none to date	Only 16 pallets read, suggest 6 pallets had no tags
22-Oct	22	3244tags 22/22 pallets	40/44 tags* 22/22 pallets*	none to date	*extra tag identified from pallet not shipped
29-Oct	25	3250tags 25/25 pallets	47/50tags 25/25 pallets	none to date	
4-Nov	24	3348tags 23/24 pallets	NONE*		*System unplugged at Sam's. Effected present RFID system in use at Sam's



PHASE I - OCTOBER PRODUCT FLOW



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PHASE I EXPANSION

• **TIMING: DECEMBER 2001**

- 2 additional end users Distribution Centers

- GILLETTE, Chicago, Il.

- UNILEVER, Baltimore, Md.

- 2 additional products

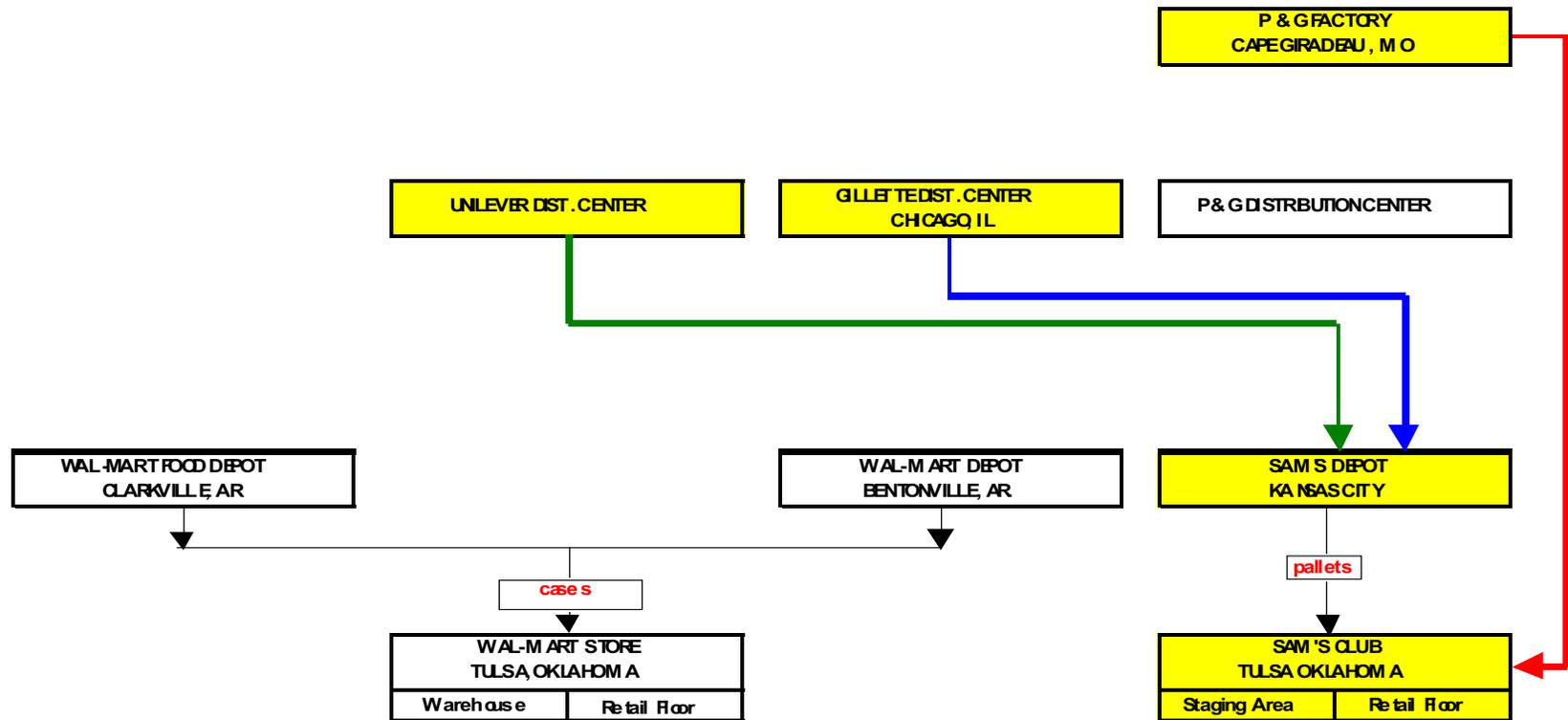
- Mach 3, 16 packs, Liquid All

- 1 additional retailer Distribution Center

- Sam's Distribution Center, Kansas City, Mo.



PHASE I, EXPANSION - DECEMBER PRODUCT FLOW



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PHASE I - SUMMARY

	TIMING	END USERS	CONFIGURATION	TECHNICAL TESTING OF
PHASE I	Q4'01/Q1'02	Procter & Gamble Sam's Club The GilletteCo. Unilever	Pallets	Software and Auto-ID system

Cost of Phase I, \$321,000 versus a budget of \$345,000

On time: October 1 start

Successful results

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PHASE II - OBJECTIVES

- **UPGRADE AND EXPAND THE FIELD TEST FROM THE PALLET LEVEL TO THE CASE LEVEL**

- **UPGRADE**

- All participating Phase I sponsor's locations and product by implementing case level tagging and reads

- **EXPAND**

- Additional sponsors, products and locations

- **TIMING: FEBRUARY 2002**



PHASE II - END USERS

- | | | |
|---------------|----------------------|------------------------|
| • P&G | Bounty Towels | Cape Girardeau Factory |
| | Pantene Shampoo | P&G DC |
| • Gillette | Mach 3, 4 pack | Chicago DC |
| | Mach 3, 16 pack | |
| • Unilever | Liquid All | Baltimore DC |
| | Dove Soap | |
| • J&J | Care Free | Memphis DC |
| | Baby Shampoo | |
| • Kraft Foods | TBD | TBD |
| • Coca Cola | 2 liter, 8 pack tray | TBD |



PHASE II - RETAILERS

- Sam's Club Tulsa, Ok
- Sam's Club TBD
- Sam's Club DC Kansas City, Mo.
- Wal-Mart DC Bentonville, Ak.
- Wal-Mart Store Tulsa, Ok.



PHASE II - TECHNOLOGIES

- **FOUR TECHNOLOGY SPONSORS BEING EVALUATED FOR PHASE II IMPLEMENTATION**

- Savi Technology
- International Paper
- Philips Semiconductors
- Auto-ID (Bring some of Phase III into Phase II)

- **ALL TECHNOLOGIES MUST BE TESTED AND APPROVED IN THE PILOT FACILITY PRIOR TO IMPLEMENTATION**

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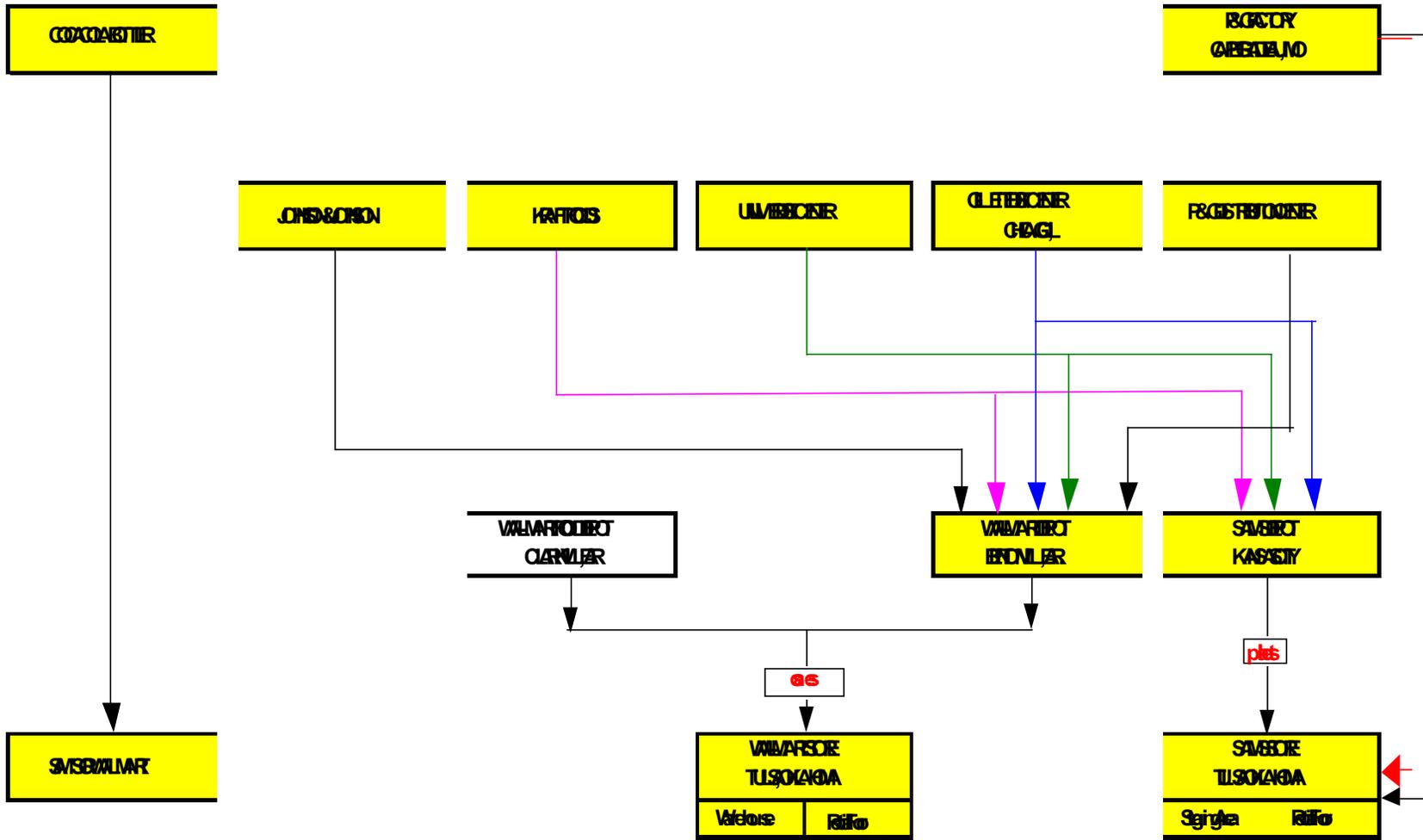
PHASE II - NEXT STEPS

- **GATHER ALL INFORMATION FROM TECHNOLOGY SPONSORS**
- **PREPARE PROPOSAL FOR PHASE II IMPLEMENTATION TO BE PRESENTED TEAM APPROVAL EARLY DECEMBER**
 - **Note; Phase II budget \$445,000**
- **PILOT LAB TEST SELECTED TECHNOLOGY PRIOR TO IMPLEMENTATION**
- **IMPLEMENT PHASE II FOR FEBRUARY 2002 START**

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PHASE II-COMplete PRODUCT FLOW



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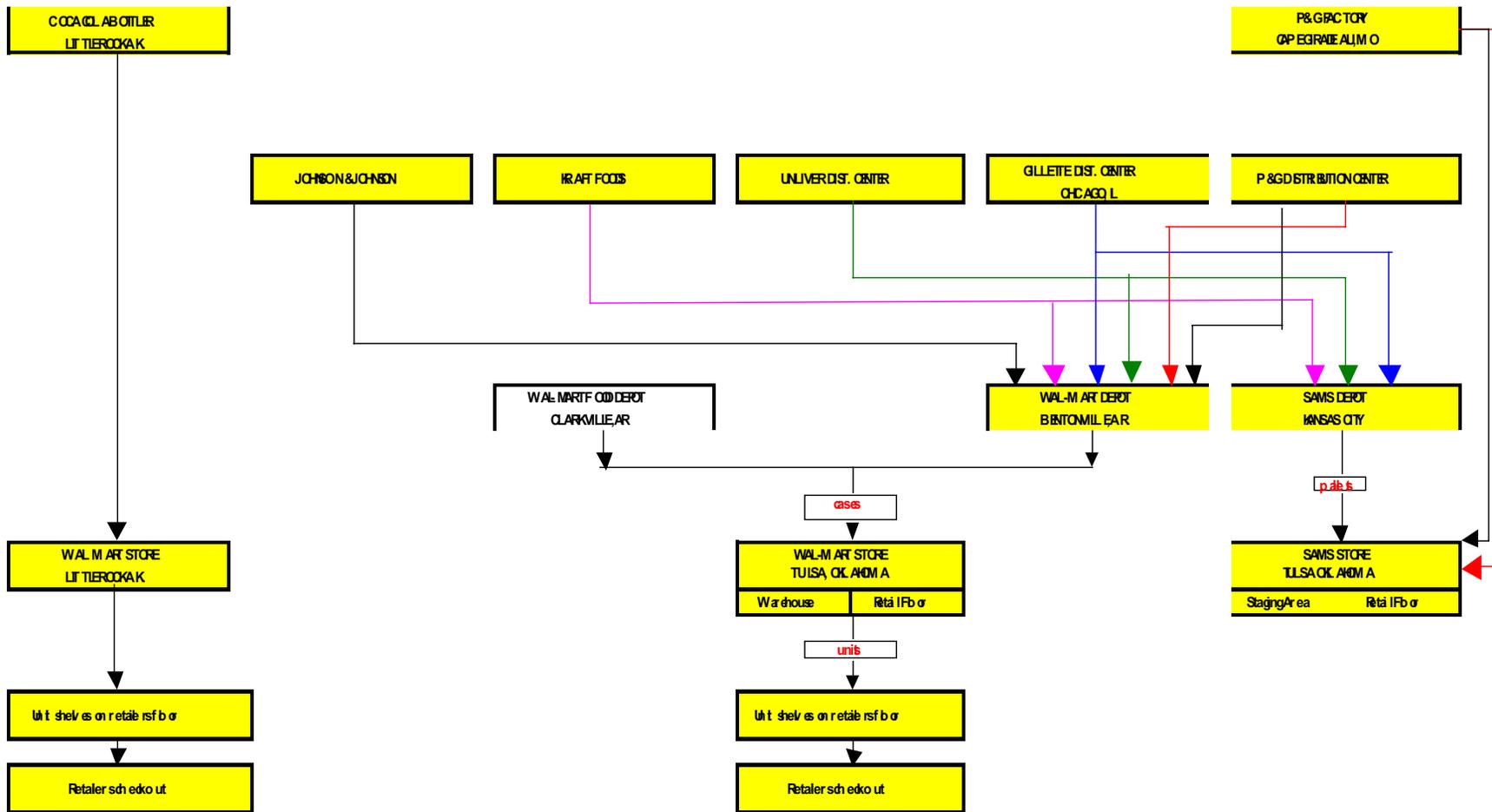


PHASE III - STATUS

- **MEETING HELD BETWEEN TRANSPONDER MANUFACTURER, CHEAP CHIP MANUFACTURER AND END USERS**
- **LOW COST TECHNOLOGY ON SCHEDULE FOR PHASE III IMPLEMENTATION SUMMER 2002**
- **OBJECTIVE UNCHANGED: TAG AND READ UNITS WITH NEW LOW COST TECHNOLOGY**



PHASE III COMPLETE - PRODUCT FLOW





FIELD TEST SUMMARY

	TIMING	END USERS	CONFIGURATION	TECHNICAL TESTING OF
PHASE I	Q4'01/Q1'02	Procter & Gamble The Gillette Co. Unilever Sam's Club	Pallets	Software and Auto-ID system
PHASE II	Q1/Q2'02	Procter & Gamble The Gillette Co. Unilever The Coca Cola Co. Kraft Foods Johnson & Johnson Sam's Club Wal-Mart	Cases and Pallets	Test robustness of Auto-ID Centers software and system
PHASE III	Q2/Q4'02	Procter & Gamble The Gillette Co. Unilever The Coca Cola Co. Kraft Foods Johnson & Johnson Sam's Club Wal-Mart	Units and Cases and Pallets	Evaluate low cost chips and readers technology



FIELD TEST - KEY DATES

- | | |
|----------------------------------|-------------------|
| • BEGIN PHASE I | COMPLETE |
| • BOARD OF OVERSEERS MTG. | NOV 14, 01 |
| • EXPAND PHASE I | DEC 2001 |
| • DECISION ON PHASE II | DEC 13, 01 |
| • IMPLEMENT PHASE II | JAN 2002 |
| • BEGIN PHASE II | FEB 1, 02 |
| • BEGIN PHASE III | SUMMER 02 |