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PHOENIX CONVENTION CENTER | PHOENIX, AZ

RF#D JOURNAL LIVE!

Chemical Tracking Pilot with RFID

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Goals of Pilot Project

- Zero Chemical Defects
 - Increase shelf life visibility
 - Reduce chemical non-conformances
- Cost Reduction
 - Reduce chemical scrap
 - Increase material availability awareness





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Existing Infrastructure



- RFID RTLS
 - Matrix of readers & antennae
- Portals
 - Readers over doorways
- Handheld
 - Used in closed environments
- IoT Application
 - Central hub integrating RFID systems & systems of record





Choosing Technology Partners

 Trusted partners ability to provide leverage points

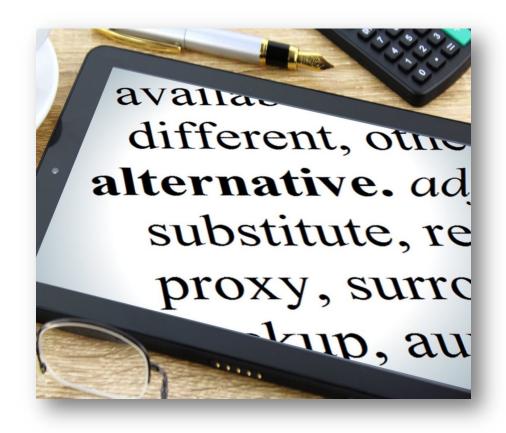
 An agnostic software solution, able to integrate current and legacy systems

Experience deploying IoT and RFID





Alternative Solutions



• EHS systems

2D Bar Code Systems

Weight & Scale Systems



Exploring RFID Technologies

- Passive Tags
 - Currently deployed, but additional environmental stressors need to be resolved

- Active Tags
 - Active tags typically cost more
- NFC viability
 - Not selected for pilot due to additional hardware requirements





Choosing Technologies



Existing infrastructure could be leveraged

Previous experience with application

Time to develop PoC



Deployment/implementation Challenges

 Selecting an area that represented a typical environment

Change management

Allocating resources





Environmental Conditions

Electronics assembly environments

ESD/FOD controlled

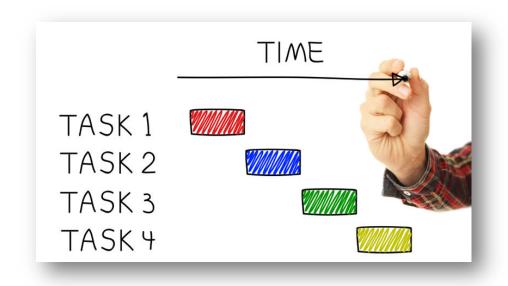






Time Phase Plan

- 3 month pilot
 - 1-30 days planning
 - 30-60 days implementing
 - 60-90 days data capture & analysis





Results

ID	Name	Calibration Due Date -	Category
33186C698000194000AA5	51010	2023-11-01 @ 01:00	Chemical
TWTX1041	592466	2022-06-11 @ 01:00	Chemical
00AA5E8C	TWTX1041	2022-06-11 @ 01:00	Chemical
33186C698000194000AA5	737008-2	2022-06-01 @ 01:00	Chemical
33186C698000194000AA5	737008-2	2022-06-01 @ 01:00	Chemical
33186C698000194000AA5	20054	2021-12-18 @ 01:00	Chemical
33186C698000194000AA5	20054	2021-12-18 @ 01:00	Chemical
33186C698000194000AA5	0757033P001	2021-10-25 @ 01:00	Chemical
33186C698000194000AA5	0757033P001	2021-10-25 @ 01:00	Chemical
33186C698000194000AA5	2121370	2021-09-04 @ 01:00	Chemical
33186C698000194000AA5	2121370	2021-09-04 @ 01:00	Chemical
33186C698000194000AA5	2121370	2021-09-04 @ 01:00	Chemical
33186C698000194000AA5	2121370	2021-09-04 @ 01:00	Chemical
33186C698000194000AA5	2121370	2021-09-04 @ 01:00	Chemical
33186C698000194000AA5	2121370	2021-09-04 @ 01:00	Chemical





 RFID reads were realized on chemical containers

 Inventory scans were possible with and without fixed antennae

Search and seek functionality realized

Next Steps

Review lessons learned

Develop plan to scale

Connect Suppliers to RFID System







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