

AVA™ Logistics Suite Systems and Services Review

Agenda

- Introduction
- AVA™ Asset Manager
- AVA™ Inventory Manager
- AVA™ Armory Track
- RFID (Passive / Low Energy Bluetooth)
- Logistics / Warehouse Support Services
- Questions / Next Steps

Background:

AdvanTech, Inc. is proud to unveil our **AVA™ Logistics Suite**. These applications are all based on three guiding principles of **A**ccuracy, **V**isibility and **A**ccountability.

These applications are browser-based, online, real-time using standard browsers and rely on a central encrypted relational database located in Annapolis. Our systems are in operation throughout the U.S in multiple industries. Our goal is to assist our clients achieve substantial savings through implementation of advanced technology and best practices.

AVA™ Asset Manager:

Defines facilities to the room level. Tracks assets (moveable and fixed) to the serial number level to individual rooms. Assigned ownership of each room within each facility. Establishes and tracks projects and work orders to document and monitor labor and non-labor costs. Automates the internal package delivery process by defining delivery routes and building manifests to deliver within the organization. Track employees, contractors and visitors who have access to assets. Performs physical inventory counting and reconciliation processes. Generates numerous operational and accounting reports.

AVA™ Item Manager:

Fully-featured, multi-entity, procurement, requisitioning, receiving, remote inventory, cross leveling and perpetual inventory management system. Full audit trails with transaction history. Multiple stockrooms allowed with individual reorder parameters established. Asset visibility option to include inventory levels from prime suppliers. Serial and lot number tracking available.

AVA™ Armory Track:

Fully-featured RFID enabled application developed specifically for firearms. Full audit trails with transaction history. Documents what firearms and accessories were issued to each person. Maintains an online Property Book by person until the equipment is returned. This application can accept CAC cards for electronic signatures.

AVA™ RFID Tag Manager:

Upgrades Asset and Item Manager Applications to utilize RFID tags. Various RFID tag standards are supported including EPC Gen2 and Low-Energy Bluetooth. Tags are used for access control, in supply chain management to track inventory movement, to track files, laundry, garments, equipment assets such as wheelchairs, and high-cost or high-loss items such as electronics or tools.

AVA™ Asset Manager

Facilities:

- What Facilities are included in my Organization?
- Who occupies my Facilities?
- What are the areas in Facilities used for?
- Blueprints and other document stored online linked to facility, floor and room.
- Fire Escape documentation.

Assets / Equipment:

- What assets are in my Organization?
- Where are these assets within my Facilities?
- Who owns these assets?
- What assets are out of service and for how long?
- What assets have just arrived into my Organization?
- What assets have excessive repair and maintenance costs?
- When were the assets last counted and reconciled?
- Which assets are owned versus leased or on consignment?
- How do I dispose of obsolete and unusable assets?
- What are my current depreciation amounts?
- Replace vs Repair decisions

Projects / Work Orders:

- What Projects and Work Orders are still open?
- What Projects and Work Order are being planned and/or approved?
- What are the budgets for these Project and Work Orders?
- Who is performing the work?
- Where is the work being performed (on/off site)?

People:

- Roles of Staff within organization.
- Visitor and Contractors allowed into the Facilities.
- Certifications of Staff using or repairing Facilities or Assets.
- How can I limit access to specific areas by Staff and Visitors?

AVA™ Asset Manager – Equipment Tracking

Facilities / Building

Facility Type

Floors

Rooms

Room Usage

Square Footage

RFID / Barcode Assigned

Systems

Asset / Item Master

Manufacturer

Model Number

Purchased From

Purchase Cost

Serial Number

RFID / Barcode Assigned

PO Number

Date Acquired

Data into Service

- Room Inventory
- Transaction History
- Utilization History

AVA™ Asset Manager – Project Tracking

Facilities / Building

Facility Type

Floors

Rooms

Room Usage

Square Footage

RFID / Barcode Assigned

Systems

Asset / Item Master

Manufacturer

Model Number

Purchased From

Purchase Cost

Serial Number

RFID / Barcode Assigned

PO Number

Date Acquired

Data into Service

Projects

Classification

Priority

Description

Status

Work Orders

Category

Priority

Description

Status

AVA™ Asset Manager – People Tracking

Facilities / Building

Facility Type

Floors

Rooms

Room Usage

Square Footage

RFID / Barcode Assigned

Systems



People

Staff / Employees

Contractors

Visitors / Patients / Students

Department

RFID Tag ID



Facility Location (Building / Room)

Work Order Costing

Location Validation

AVA™ Asset Manager – Delivery Tracking

Facilities / Building

Facility Type

Floors

Rooms

Room Usage

Square Footage

RFID / Barcode Assigned

Systems

Asset / Item Master

Manufacturer

Model Number

Purchased From

Purchase Cost

Serial Number

RFID / Barcode Assigned

PO Number

Date Acquired

Data into Service

- **Generate Delivery Bar Code Label**
- **Stage deliveries by Delivery Zone**
- **Generate Delivery Manifest for Delivery Zone**
- **Electronic Signature with time and date stamp**

System Architecture and Network Design

Software Functionality



What is Armory Track?

How Armory Track Works?

Key Features

- Automate Issue/Receipt of RFID Items
- Keep Accurate Digital Inventory of assets
- Print Property Book Receipts
- Reduced Labor Tasks
- Real-Time Visibility



United States Air Force



CAPABILITIES

- ***Inventory & Asset Management***
- ***RFID***
- ***Supply Chain***

CLIENT

USAF

PERIOD OF PERFORMANCE

October 2016 – January 2017

LOCATION

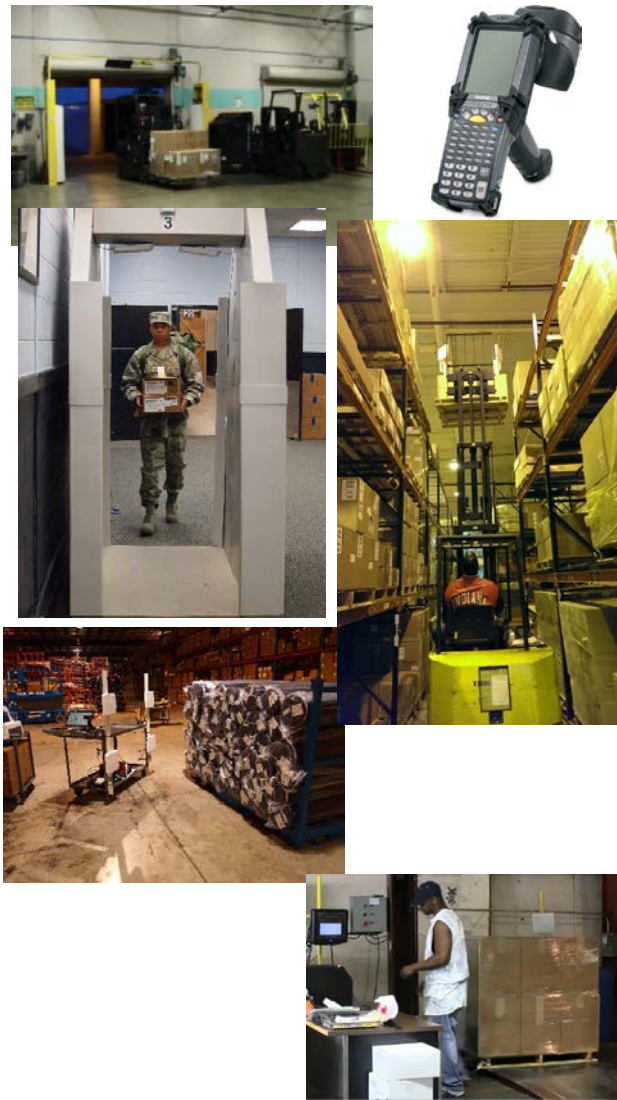
Travis AFB, CA

OUR SERVICES...

- **Provided CRSS Armory of Travis Air Force Base with a system created to show real-time inventory of all items located on the armory's storage racks**
- **Track issuance and return of weapons and automatically generate an AF IMT 1297 hand receipt**
- **Implementation of RFID weapon tags and interrogators**
- **Installation of outside monitor to display weapons issued**

Automated Data Capture Technologies

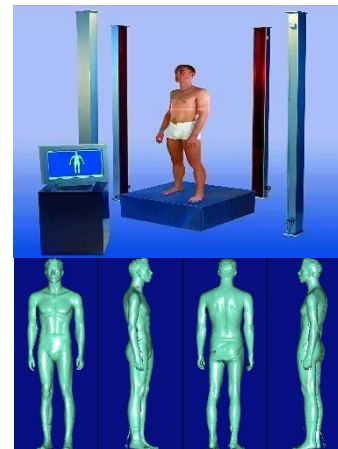
RFID



LEB / RTLS



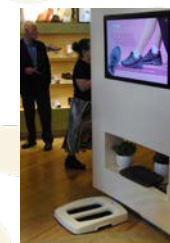
Measuring Devices



Whole Body Scanning



Kinect



Foot Scanning



Hand Measuring

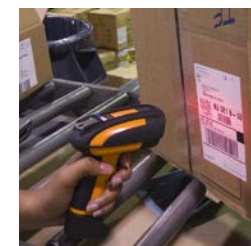
Others



OCR



Voice Recognition



Bar Code

RFID Overview – Technologies Available

Category

Specifications

Reading Range

GPS

- Transmitter
- Satellite Reader
- Satellite Receiver



Active RFID

- Reusable Transmitter with internal power source
- Multiple Fixed Readers
- Extension of LAN / WAN



Low Energy Bluetooth

- Reusable Transmitter with internal power source
- Smaller Form Factor than Active RFID
- Smartphone Compatible



Passive RFID

- Disposable Transmitter with external power source
- Fixed Reader with Multiple Antennas and/or Handheld Readers

RFID Overview – Technologies Available

GPS



Tractor Trailer



Shipping Container



ForkLifts

Active RFID



Toll Pass



Metal Containers



Refrigeration Units



Moveable Assets

Low Energy Bluetooth



Pallets w/ Boxes



Cartons / Boxes



Apparel



Staff/
Visitors



Document / Records /
Books

RFID Overview – pRFID Components



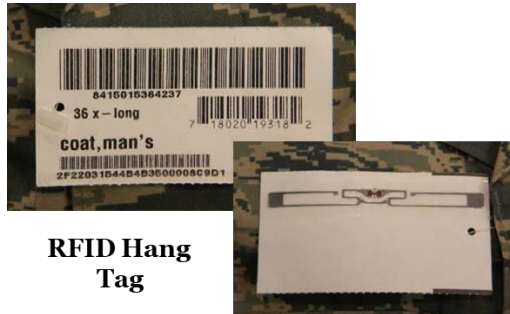
RFID Printer / Encoder



Receiving/Shipping Door Portal



Fixed Reader and Antennas



RFID Hang Tag



Permanent Tags



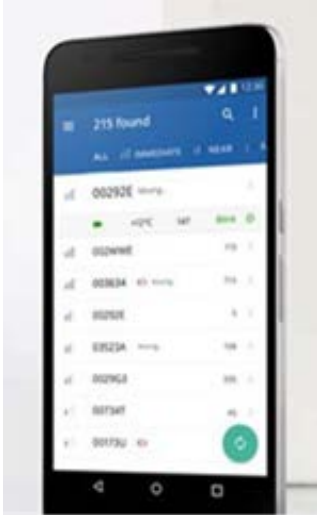
RFID Handheld Reader

Low Energy Bluetooth Solutions

AdvanTech, Inc.

Low Energy Bluetooth Solutions

Our product is a solution that includes beacons, readers, apps, and software to track assets in warehouses, yards, offices, hospitals, etc.



Readers



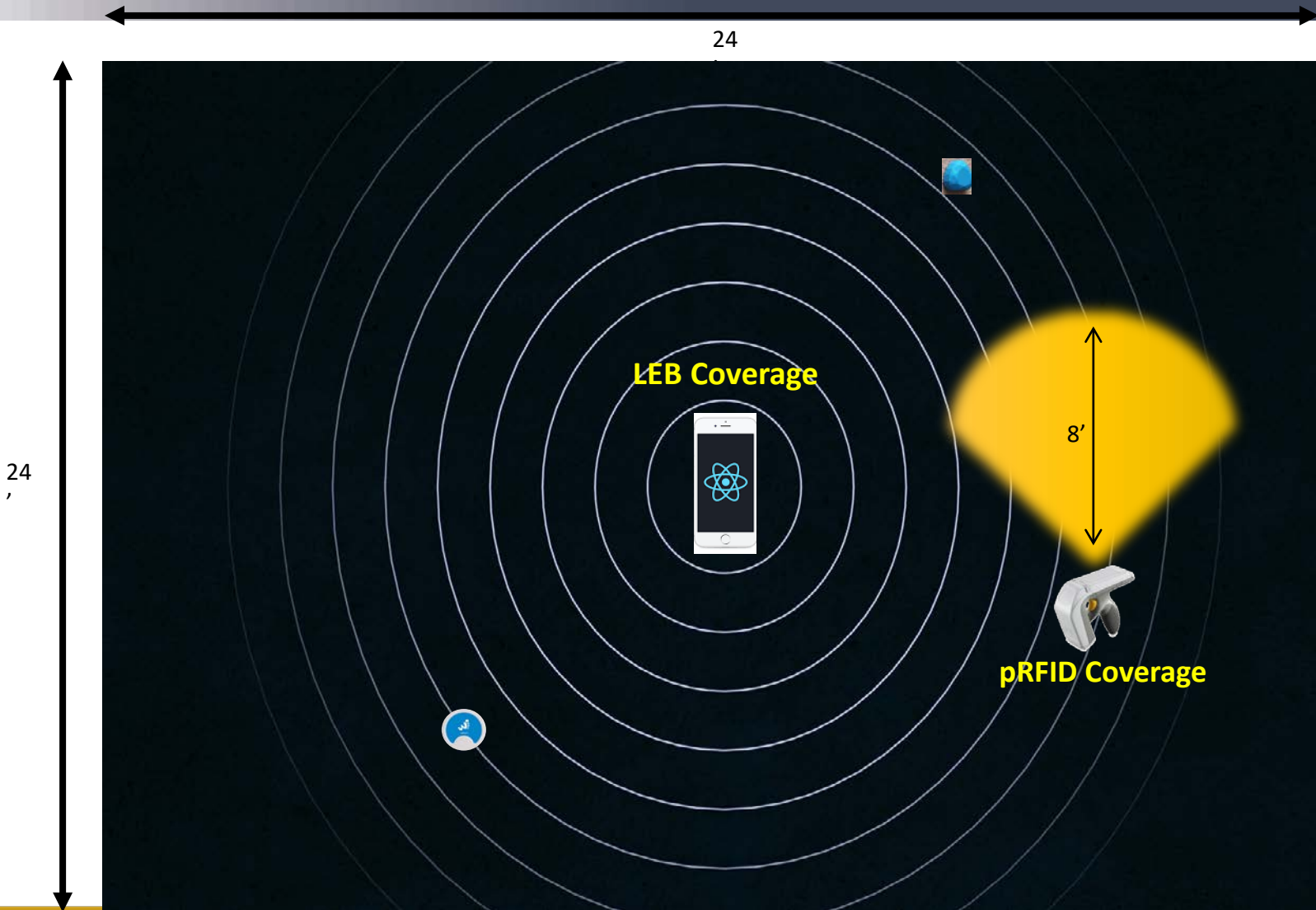
Beacons / Tags

Deploys rapidly

• Analyzes data

• Smart notifications

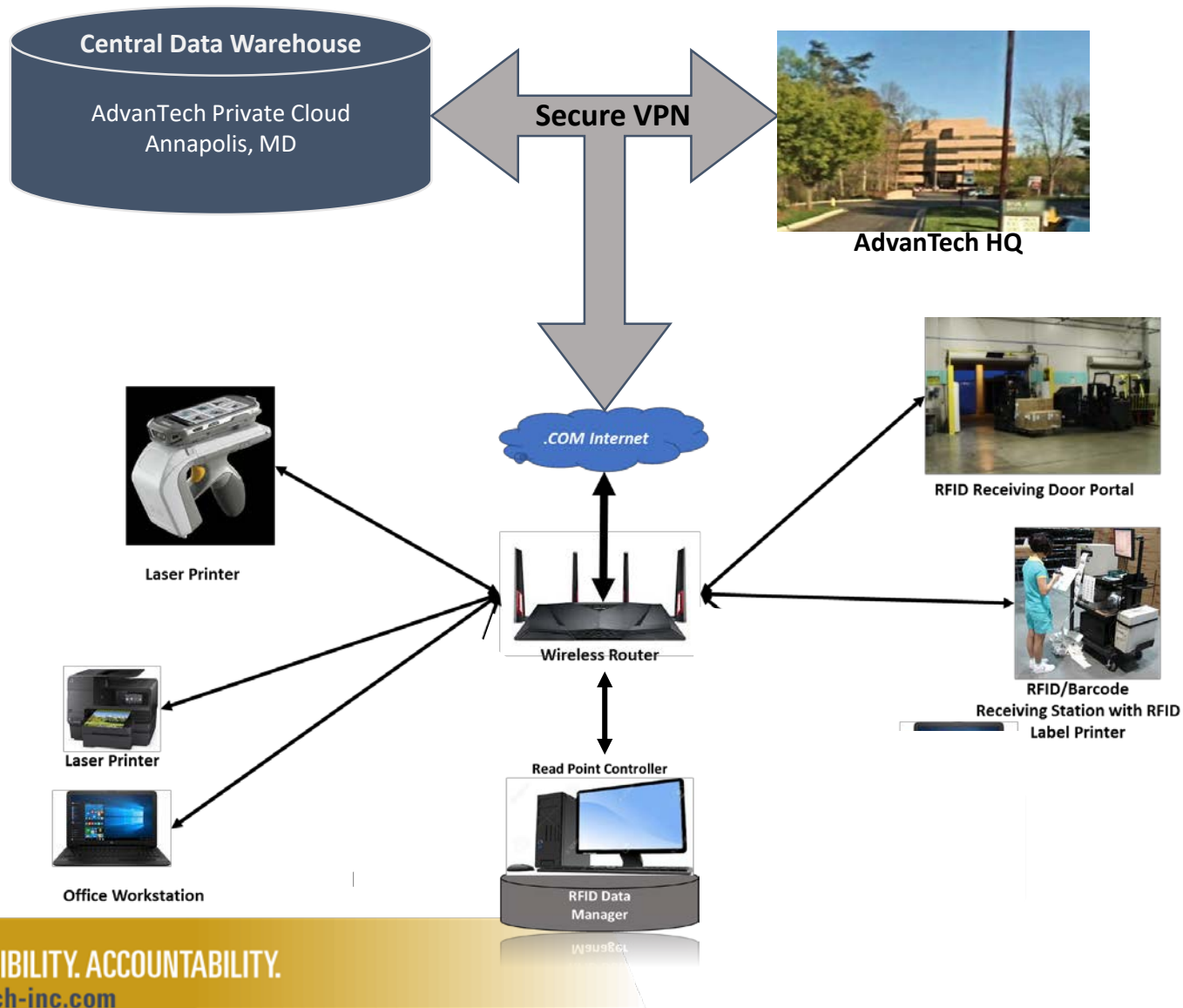
RFID Tag Location (pRFID vs LEB)



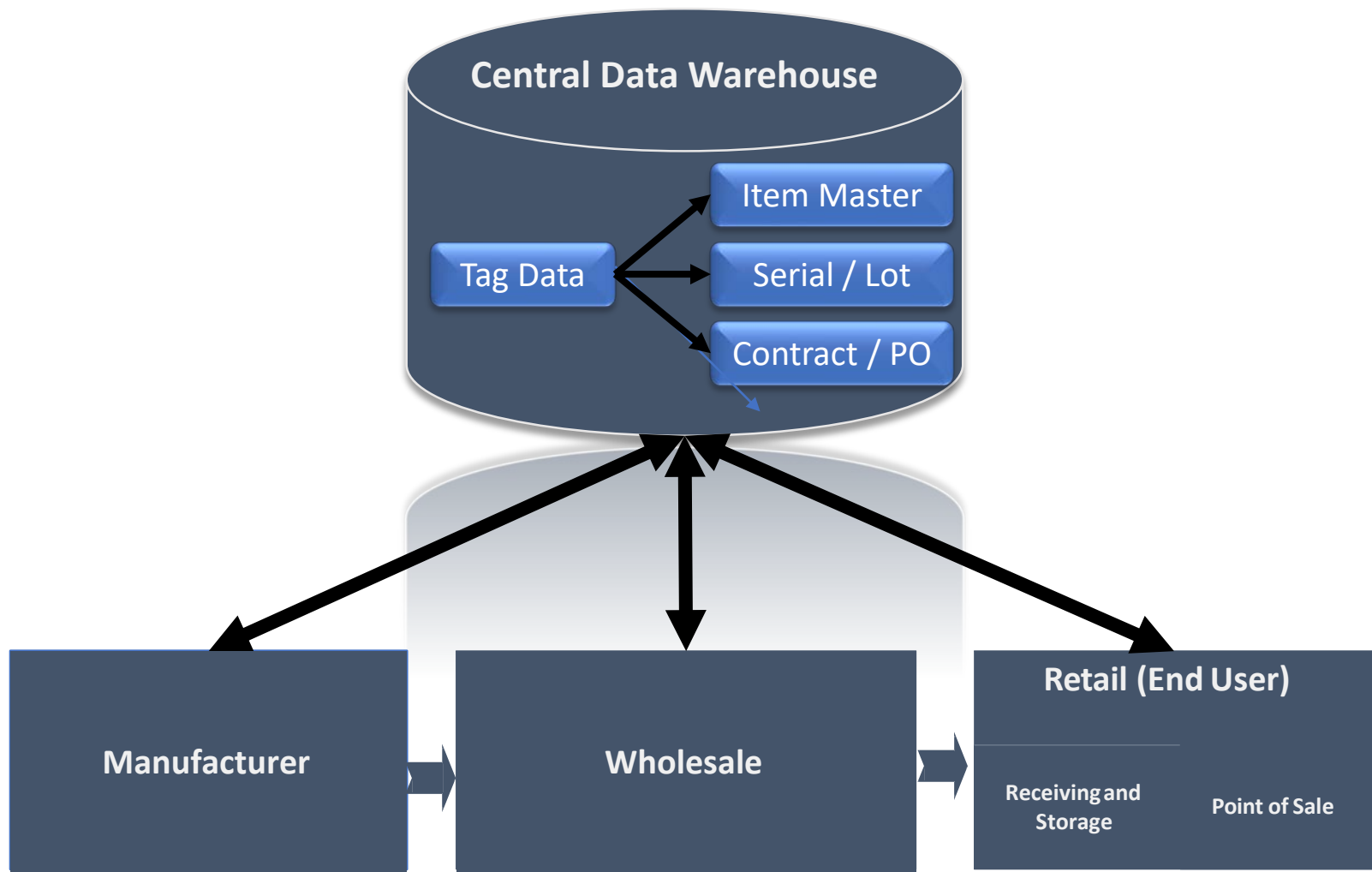
Hardware Cost Comparison (pRFID vs LEB)

	Tags for Pieces of Equipment (300)	RFID Printer / Encoder (1)	Fixed RFID Readers for 10 areas (20)	Handheld RFID Readers (2)
Passive RFID \$46,880	\$500	\$2,780	\$40,000	\$3,600
Low Energy Bluetooth \$17,000 (\$29,880)	\$5,000 Higher Tag Cost Larger Read Range	\$0.00 Printer not Required	\$12,000 Lower Reader Cost No visible Antennas	\$0.00 Smart Phone Application

RFID Overview – RFID Architecture

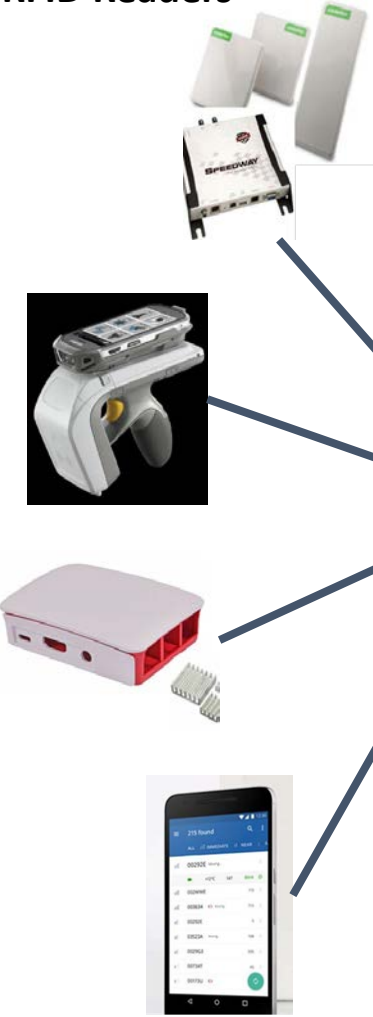


RFID Overview – RFID Architecture



RFID Overview – RFID Architecture

RFID Readers



Read Point Controller



RFID Data Manager



Where can RFID be Incorporated?

	Manufacturing	Wholesale	Retail
Demand Planning	Yes	Yes	Yes
Contract Management	Yes	Yes	
Production Management	Yes		
Shipping / Invoicing	Yes	Yes	
Receiving		Yes	Yes
Location Management	Yes	Yes	Yes
Order Picking and Staging	Yes	Yes	Yes
Physical Inventories and Cycle Counts	Yes	Yes	Yes
Shelf Space Allocation			Yes
Point of Sale			Yes
Turn-ins and Exchanges			Yes
Anti-Counterfeiting	Yes	Yes	Yes
Product Recalls	Yes	Yes	Yes
Expiration Date Tracking	Yes	Yes	Yes
Stop Loss (Theft Prevention)	Yes	Yes	Yes

Documented Operational Improvements

Operational Activity	Documented Results
Production Control	Reduced Quality Checks by 20 hours per week
Receiving	Reduced Receiving Time to 20 Minutes from 3 hours
Point of Sale	Processed Platoon of 50 Recruits in 1 hour down from 2.5 hours
Physical Inventory Counting	Reduced Counting Time to 6 hours from 2 days
Physical Inventory Variance	Variances reduced to 0.18% from 5%-8%

Inventory and Warehouse Management Services

Background:

Leverage our Information Technology assets to provide Logistics, Inventory, and Warehouse Management that is Technically Superior versus Technically Acceptable

AdvanTech Staff experience included Supply Chain, Logistics and Operations Improvement expertise from within both Military and Health Care.

Reference List

Performance: New York National Guard, DC National Guard, NAVSUP – Gulf Port, NAVSUP – Corpus Christi, NAVSUP – Dahlgren, VA, Joint Base Anacostia–Bolling, Fort Bliss(s)

Past: VA – Loma Linda, METC, SAMMC, Fort Irwin, WA, USAMRIID – Fort Detrick, MD(s) , Recruit Training Centers, Fort Carson, CO, Smithsonian – National Zoo

Services Performed

- Contracting
- Procurement
- Receiving
- Inventory Management
- Physical Inventory / Reconciliation
- DRMO

Washington DC Army National Guard



CAPABILITIES

- *Logistics Support*
- *Inventory and Asset Management*

CLIENT

U.S. Army National Guard

PERIOD OF PERFORMANCE

October 2016 – Present

LOCATION

Washington, DC

OUR SERVICES...

- **Provide DC Army National Guard at Joint Base Anacostia-Bolling with Supply and Warehouse Support to include a Logistics Manager, all personnel, equipment, tools, materials, supervision, and quality control**
- **Maintain & updates inventory and corresponding records**
- **Manages warehouse operations**
- **Management and administration**
- **Receiving**
- **Processing**
- **Stowing**
- **Issuance and transfer of materials throughout the warehouse**

New York Army National Guard



CAPABILITIES

- *Logistics Support*
- *Inventory and Asset Management*
- *Property Book Functions*

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U.S. Army National Guard

PERIOD OF PERFORMANCE

November 2016-Present

LOCATION

Latham, NY

OUR SERVICES...

- **Provide New York Army National Guard of JFHQ-NY with Logistics Management oversight to include Reset procedures and technical support services on all mobilization and demobilization projects**
- **Equipment management, inventory and asset management**
- **Property book transactions**
- **Project management and reporting**
- **Review & training on established procedures, to facilitate implementation of property management using PBUSE**
- **Logistical Support Team (LST) to Evaluate Logistical Operations**

VA Loma Linda Ambulatory Care Center



CAPABILITIES

- ***Project Management***
- ***Initial Outfitting & Transition (IO&T)***

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U.S. Dept. of Veteran Affairs

PERIOD OF PERFORMANCE

April 2016 - November 2016

LOCATION

Loma Linda, CA

OUR SERVICES...

- **Managed Initial Outfitting & Transition (IO&T) and activation**
- **Warehousing**
- **Installation**
- **Testing**
- **Training**
- **Transition Planning**
- **Move and Relocation of all assets**
- **Final Turnover and Closeout of Services**

Medical Research Institute of Infectious Diseases (USAMRIID)



OUR SERVICES...

- **Currently providing USAMRIID with IM/IT Consulting Services & Project Support**
- **Detailed inventory on all existing equipment & assets for reuse or disposal**
- **Preliminary requirements for future IM/IT equipment**
- **Documentation on projected Minimum Equipment Requirements (MERs)**
- **Expanding capabilities through future procurement**

CAPABILITIES

- ***Project Management***
- ***Initial Outfitting & Transition***
- ***IT & Administrative Services***

CLIENT

U.S. Army

PERIOD OF PERFORMANCE

2015 - 2018

LOCATION

Frederick, MD

????? Questions ?????



Next Steps