



CODEplus

Logistics Solution Provider



www.code-plus.com





- Woman Owned Small Business (WOSB)
- Incorporated in 1995
- DUNS Number: 83-801-1740
- CAGE Code: 1WHD6
- Fairfax, VA Headquarters
- ISO 9001:2000 Certified – CMMI Level 3 Compliant



www.code-plus.com





Expertise

Provider of logistics automation solutions specializing in software development , systems design and product solutions for **defense**, **postal** , **commercial** logistics, **distribution**, and **warehousing enterprises**



IT Capabilities

- Automated Identification Technology (AIT)-based integrated logistic processing solutions (Barcode, Unique Identification (UID), RFID, GPS/Satellite, OCR and Image acquisition)
- Tracking and tracing solutions
- Web-based Business Intelligence (BI) and Business Activity Monitoring (BAM) products for optimization and data transformation across logistic operations



CODEplus delivers **system, software** and **product solutions** for logistics, distribution and warehousing enterprises:

Prod.



Logistics and Supply Chain Products



Software Application Development



Systems Design and Integration



Project-related Services



Technical Support Services



Installation, Fielding and Maintenance Services



Mutli-Media Based Training

Services

- eManage/IT Logistics Product Suite
- eManage/IT UID Product Suite
- eManage/IT RFID Product Suite
- eManage/IT Asset Tracking
- eManage/IT Business Intelligence/ Business Activity Monitoring Web Tool (STARplus)



US Government Sector

- ✓ Involved with multiple United States Department of Defense (DoD) agencies in the areas of Logistics, Information Technology, and Integration Services:
 - US Army, US Navy, US Coast Guard, and US Army Corps of Engineers.
- ✓ Works independently and in partnership with other Government agencies, Government prime contractors such as Accenture, Deloitte (prev. BearingPoint), SAIC, Northrop Grumman, and commercial firms.

Commercial Sector

- ✓ A portfolio of commercial clients in the logistics sector, such as:
 - FedEx, Maersk, US Airways, ATA, Southwest, AT&T, DST Output, FDR, Pitney Bowes/PSI, Wal-Mart, Sprint, LESCO, EG&G / Lear Siegler, IAP Services, Battelle, Lockheed Martin / DS2, DC Logistics, Allstate, and GearForSports.

Postal Sector

- ✓ Long-standing partnership with the largest postal operator, US Postal Service (USPS) since 1995.
- ✓ Project with the French Post (La Poste) (Business Process Performance and Business Intelligence and Postal Activity Monitoring applications)



Government Contracting Vehicles

- PM J-AIT Passive RFID (pRFID) (W91QUZ-08-D-0032) – Prime
- Field & Installation Readiness Support (FIRST) – Sub
- Rapid Response Third Generation (R2-3G) – Sub
- Seaport-e (N00178-04-D-4141) - Sub





DoD Customers

- US Army Ft. Bliss - DOL
- PM Joint Automatic Identification Technologies (PM J-AIT)
- PEO Soldier
- US Navy Naval Air Systems Command (NAVAIR)
- US Army Corps of Engineers (USACE)





CODEplus NAICS codes

- 541330 - Engineering Services
- 541511 - Custom Computer Programming Services
- 541512 - Computer Systems Design Services
- 541513 - Computer Facilities Management Services
- 541519 - Other Computer-Related Services
- 541611 - Administrative/Business Management Consulting Services
- 541614 - Process, Physical Distribution and Logistics Consulting Services
- 541990 - Other Professional, Scientific & Technical Services
- 511210 - Software Publishers
- 33411 - Electronic Computer Manufacturers





CODEplus Service Offering

Position	Capabilities Summary
Director of Engineering	<ul style="list-style-type: none">• Plans and directs all aspects of engineering activities within an organization.• Ensures all engineering projects, initiatives, and processes are in conformance with organization's mission and strategies.
Program Manager	<ul style="list-style-type: none">• Coordinates and monitors the scheduling, pricing, and technical performance of company programs.• Aids in the negotiation of contracts and contractual changes and coordinates preparations of proposals, plans, specifications, and financial conditions of contracts.• Develops new business and expands product line.• Ensures adherence to master plans and schedules, develops solutions to program problems, and directs work of incumbents assigned to program from various departments.
Quality Assurance Manager	<ul style="list-style-type: none">• Responsible for the design and implementation of policies and procedures to ensure that quality standards are met during production.• Oversees testing of processes and products.
Project Manager	<ul style="list-style-type: none">• Execution, and management of technology programs and provision of core expertise in the project management of systems engineering and integration tasks.• Involved in all aspects of project management with full responsibility for the application of budget, resource, risk, change, communication, and quality management processes.
Business Analyst	<ul style="list-style-type: none">• Identifies areas where changes are needed in business plans and then monitors the impact of the change as per business profit of the firm.• Appraises business process management and business requirements of the customers and translates them to specific software requirements.• Effectively communicates with internal teams and external clients to deliver functional requirements like process flows and Current Concept of Operations.
Senior Software Engineer	<ul style="list-style-type: none">• Designs, modifies, develops, writes, and implements software programming applications.• Supports and/or installs software applications/operating systems.• Participates in the testing process through test review and analysis, test witnessing, and certification of software.• Designs, plans, and coordinates work teams.
Software Engineer	<ul style="list-style-type: none">• Performs a variety of programming assignments requiring knowledge of established programming procedures and data processing requirements.• Code, test, and troubleshoot programs utilizing the appropriate hardware, database, and programming technology.• Knowledge of hardware, software and operating systems to include configuration and connectivity.



CODEplus Service Offering (cont'd)

Position	Capabilities Summary
Web Developer	<ul style="list-style-type: none">• Develops new Web applications as identified by management through packaged and customized applications• Designs and implements user-driven templates, databases, and user interfaces for ease of use.• Develops database-driven Web interfaces for rapid, real-time information sharing.
Systems Engineer	<ul style="list-style-type: none">• Responsible for the planning and engineering of an organization's systems infrastructure. Includes the implementation and design of hardware and software.• Monitors the performance of systems.
Systems Analyst	<ul style="list-style-type: none">• Provides system-level support of multi-user operating systems, hardware and software tools, including installation, configuration, maintenance, and support of these systems.• Research, plan, install, configure, troubleshoot, maintain, and upgrade hardware and software interfaces with the operating system.• Knowledge of company-supported hardware, software and operating systems to include configuration and connectivity.
Technical Writer	<ul style="list-style-type: none">• Writes technical materials, such as instruction manuals, web content, proposals, reports, engineering specifications, and online help.• Works closely with subject matter experts to ensure accurate information in the documentation and to give appropriate feedback concerning product improvements• Applies design principles to lay out documents in an effective manner
Configuration Manager	<ul style="list-style-type: none">• Manages the coordination and administration of configuration management activities.• Formulates procedures for and executes the introduction of changes to engineering documents.• Monitors the review of released engineering change data and change accounting activities to ensure adherence to configuration management procedures and policies.
Database Administrator	<ul style="list-style-type: none">• Develops, implements, administers, and maintains policies and procedures for ensuring the security and integrity of the company database.• Implements data models, database designs, data access and table maintenance codes.• Resolves database performance and capacity issues, and replication and other distributed data issues.
Technical Support	<ul style="list-style-type: none">• Provides support to staff and retains advanced knowledge on all company-supported applications.• Troubleshoots computer problems and determines source (hardware, software, user access, etc.), and advises on appropriate action.
Administrative Assistant	<ul style="list-style-type: none">• Provides administrative support to a department and/or manager.• Creates and modifies documents using Microsoft Office.• Sets up and coordinates meetings and conferences.• Performs general clerical, receptionist, and project-based work.



Logistics Areas of expertise

Our logistic solutions integrate advanced IT technologies into the processes and operations of logistics and supply chain execution based on proven experiences in:

- Container Management
- Property Accountability
- Mail services
- Tracking and Tracing Assets
- Inventory Management
- Condition Based Maintenance (CBM)
 - Military Vehicle Maintenance
 - Military Aircraft Maintenance
- Emergency Situations Management
- Total Asset Visibility (TAV)/In-Transit Visibility (ITV)





Opportunity Examples

Container Management

- Associate Container load to Container movement
- Reduce Container Detention Costs by monitoring containers status & location correlation
- Configure and generate activity alerts



Property Accountability

- Integrate AIT Technologies on Item level
- Use Reset to create or update records
- Associate Item to transport units throughout Supply Chain to soldier





Opportunity Examples

Mail Services

- Business Process Re-engineering
- Automate postal processes
- Optimize mail handling and minimize re-handling and redirection of mail
- Fully integrated postal supply chain management



Inventory Management

- Access to real-time information
- Inventory control
- Secure inventory management





Opportunity Examples

Condition-Based Maintenance (CBM)

- Avoid failures of critical components and increase security
- Perform maintenance only upon evidence of need
- Save time and money on maintenance

CBM is an alternative to failure and used-based maintenance



Tracking and Tracing Assets

- Get detailed and real-time information about critical assets
- Leverage existing and legacy data sources
- Transform data into actionable information across supply chain





Opportunity Examples

Emergency Situations Management

- Efficiently move critical assets
- Real-time situation awareness
- Optimize available resources



Total Asset Visibility (TAV) / In-Transit Visibility (ITV)

- Visibility across the supply chain
- Real-Time visibility of critical assets
- Operations optimization





‘Innovative Logistics Solutions for the Warfighter’

www.code-plus.com





Solution Examples

- Rapid Fielding from Warehouse to Warfighter
- Property Accountability
- Warehouse Management
- Track and Tracing Assets
- Emergency Situations Management
- Intuitive UID Marking and Management
- Condition-Based Maintenance (CBM)
- Automatic Access and Asset Control
- Specialty Solutions
- Delivery Mail Flow Analysis Tool (DMFAT)



Rapid Fielding from Warehouse to Warfighter (1)



Challenge

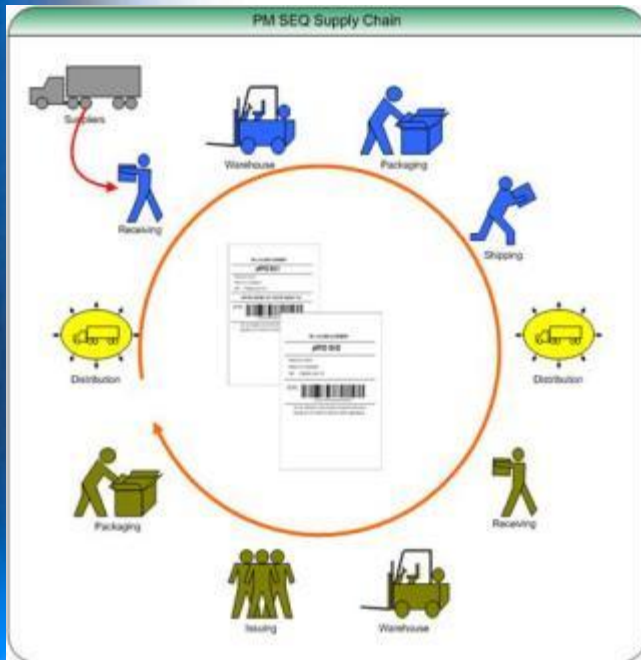
Lessons learned reinforce the need to be able to quickly enhance the capabilities of fighting forces through the rapid fielding of specialty items.

Question is how to leverage advancements in IT technologies such as RFID to increase the capability of central warehouse and fixed and mobile fielding operations to rapidly acquire and deploy essential equipment?

Solution

System solution includes implementation of an integrated UID/passive RFID/active RFID-enabled supply chain, which - using a combination of fixed and mobile system components - enables rapid fielding organizations to readily

- Uniquely identify items through use of AIT
- Automatically verify incoming and outgoing shipments
- Support In-Transit Visibility (ITV) programs
- Automatically manage inventories at warehouse as well as fixed/mobile fielding sites
- Support data acquisition during issue process
- Fully integrated procurement activities, incl WAWF for processing of vendor shipments





Rapid Fielding from Warehouse to Warfighter (2)

Technologies



Mobile RFID carts and RFID-enabled Integrated Mobile Marking Solutions to readily tag, mark and register accountable items in compliance with DoD UID policy



Passive RFID-enabled Warehouse Management Systems comprising dock door portals, pRFID-enabled shrink wrap and wireless printing stations, and integrated WMS applications



Ready-to-deploy, ruggedized pRFID Fielding Kits for mobile sites comprising handheld readers, printers as well as for example pRFID-enabled tables



U.S. Army Property Accountability (1)



Challenge

Providing the means for property accounting, tracking and control for government-owned assets.

The objective is to increase visibility and create near real-time management control over government-owned property through the use of advanced Automation Identification Technologies.

PAS - Property Accountability System

Asset Attributes: DA 3161, Asset Inventory List, Asset Verification, Check In/Out, Revalidation List, Asset Assignments, Help

From Date: 12/17/2010 To Date: 12/17/2010
Asset Type: All Asset Status: Available Check In/Out Status: All Checked Out To User: []
Generate PDF

PAS - Property Accountability System

Asset Attributes: Add, Edit, Delete, Search, Help, Update, Cancel

Name	Description
Laptops	
Compass	
Engines	
BlackBerry	

Asset Type Name: Engines Description: []

Unassociated Attributes: [] Associated Attributes: []
Add All >> Add > < Remove << Remove All

Copyright © 2010 CODE Plus, Inc. All rights reserved. Property Accountability System V. 1.02.001 Support Phone 120-4562 Support Email: test@Red.com

Solution

System solution integrates passive RFID technology into a highly configurable and scalable client/server application, which enables personnel to inventory, track, manage and audit government-owned property at multiple installations.

- Supports adding, editing, or deleting of property assets in a centralized database, using three different methods:
 - Automatic upload from MS Excel spreadsheets
 - User input through an User Interface on any client computer
 - User input through mobile devices
- Provides three (3) different methods of pRFID tag commissioning:
 - Printing and encoding tags using the system's pRFID-enabled printers (Optional)
 - Encoding of pRFID tags through mobile devices
 - Use of pre-commissioned pRFID tags
- Assists property auditing processes through the automatic generation of property audits based on configurable parameters



U.S. Army Property Accountability (2)

Technologies



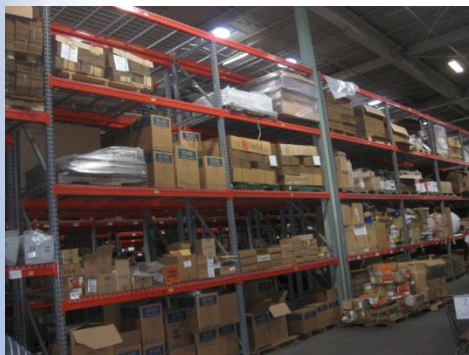
Mobile RFID reader reads and encodes RFID tags, captures images, and scans barcodes. Designed for use in various work environments, eliminating the need and associated costs for multiple devices in multi-modal data capture environments.



Passive RFID-enabled printer (optional) has ruggedized construction with ability to concurrently print barcode symbols, text, and graphics as well as perform write/read/verify operations for tags. Able to operate in wireless environments.



EPC compliant passive EPC Gen 2 tags use a general inlay that is optimized for use in a wide variety of supply chain applications.



Challenge

Supporting US Army logistics transformation by automating Warehouse operations at the installation level.

The objective is to facilitate shipments and provide visibility to material movement between DDJC and Fort Bliss, and to determine technology and process performance results, to include Return On investment (ROI).

Solution

The capabilities are the following:

- Receive, or throughput to customer, and process receipt documentation
- Store (put-away) supplies for Assigned Stockage List (ASL)
- Manage common hardware bin and bulk inventory, pick MROs, and package and label supplies for issue to customers
- Automatically track the movement of material in and out of outside storage areas
- Locate (find) and conduct inventory of stock on hand



Technologies



Mobile and fixed pRFID readers read and encode RFID tags. Designed for use in various work environments, eliminating the need and associated costs for multiple devices in multi-modal data capture environments.



Passive RFID-enabled mobile devices such as mobile carts, forklifts, and printers with ruggedized construction are integrated into the warehouse environment to mark and register items for total asset visibility.



EPC compliant passive EPC Gen 2 tags use a general inlay that is optimized for labeling cases, pallets, and packages in a warehouse environment.



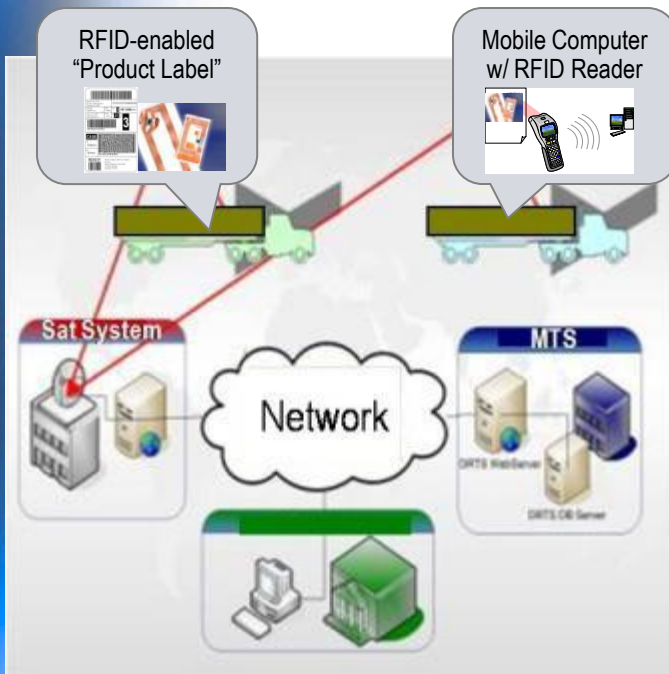
U.S. Army Corps of Engineers Tracking and Tracing Assets (1)



Challenge

Address limitations of current GPS-based systems that track the movement of logistics and combat support assets worldwide by adding near real time logistical situational awareness.

The objective is to improve the efficiency and effectiveness of distribution of limited assets and resources.



Solution

System solution will utilize the integration of passive RFID with GPS-based Tracking and Logistic Management systems similar to current domestic Emergency Disaster Management Systems; such enhanced bi-modal system allows military commanders to

- Support In Transit Visibility programs
- Near-real time 'Load Management' through automatic load type and quantity identification of assets 'on board'
- Secure critical assets on board
- Manage critical assets through ability to re-direct using Sat-based duplex connections



U.S. Army Corps of Engineers Tracking and Tracing Assets (2)

Technologies



Ready-to-deploy, Satellite Communication. Ruggedized GPS-based Trackers with field-replaceable internal battery pack, and integrated RFID reader/sensor interface



Mountable, ruggedized Passive RFID Readers for asset tracking during loading/unloading utilizing e.g. ruggedized pRFID Smart labels for use with hazardous products



Ready-to-deploy, ruggedized pRFID Fielding Kits for mobile sites comprising mobile SatCom units, handheld readers, printers as well as pRFID-enabled tables



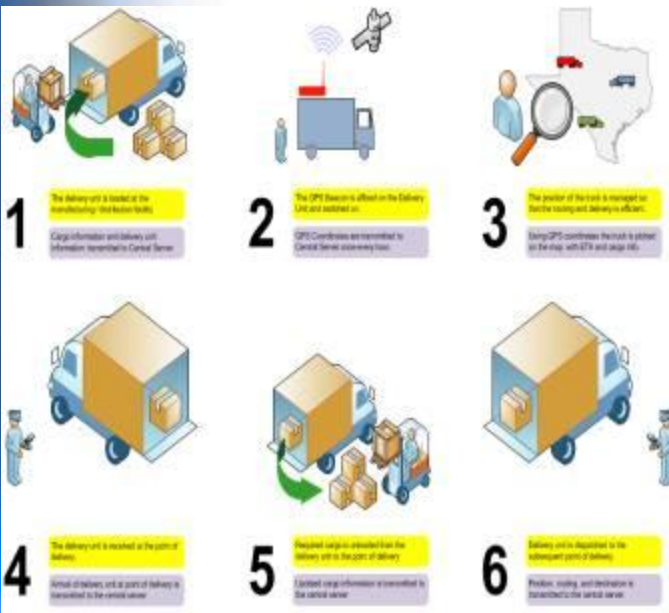
Emergency Situations Management (1)



Challenge

Real-time tracking system of emergency supply items (ice, water, power generation etc.) that:

- Is independent of land-based communications
- Allows for end-to-end tracking of goods from manufacturer to points of distribution
- Provides the government with an up-to-date picture of the emergency supply situation
- Can be deployed quickly and cost-efficiently



Solution

The Asset Tracking System (ATS) is a web-based Asset Management System that manages and tracks the status of assets and resources while in transit

- Web-based process management, execution, and reporting modules such as:
- Asset management,
- Asset tracking
- Status monitoring and
- Custom reporting



Emergency Situations Management (2)

Technologies



The barcode on the delivery information sheet are read via the handheld to assess inventory type, level and status on the delivery truck.



GPS Beacon transmits position of the truck to the GPS satellite periodically.



Inventory information is transmitted real time to the central server through terrestrial or satellite internet and the tracking use GPS information to identify Estimated time of arrival.



Intuitive UID Marking and Management (1)



Challenge

Port and redesign a previously in-house developed USN NAVAIR application into an intuitive, scalable enterprise UID marking and parts management application in support of USN NAVAIR's TAV initiative.

Solution

System solution maintains previously in-house developed functionalities, as well as enhances system with ability:

- Inventory Management allowing users to manually add, update, and delete inventory data.
- Interoperability through secure interface such as the UID Registry .
- Inventory control and reporting through ability to generate asset, status and history reports
- System Security through hardened NMCI user account management





Intuitive UID Marking and Management (2)

Technologies



RFID-enabled Integrated Mobile Marking Solutions to readily mark or update existing marks and register new replacement parts with UID registry



Mobile AIT readers in different configurations, e.g. with integrated CMB read/write capability to support wide variety of event capturing situations



Different UID Marks and other data storage device types (e.g. CMB) to match specific physical, environmental and security aspects of assets



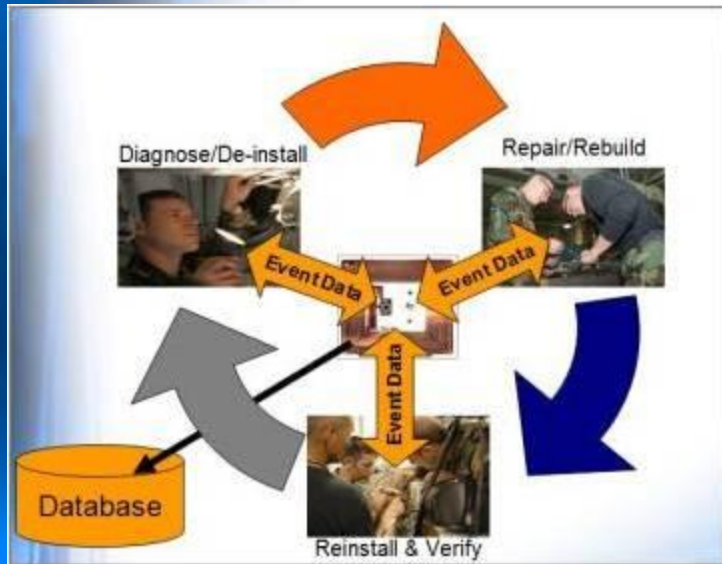
Condition-Based Maintenance (CBM) (1)



Challenge

The operational readiness and resulting mission capability of highly complex and critical military parts are directly tied to the timely and accurate execution of CBM/preventive maintenance..

CBM is appropriate for the assets for which, in the event of a failure, consequences are catastrophic (e.g. prevent casualties, mitigate safety risks, etc.)



Solution

A STARplus web-based solution that utilizes the 3Ws rule

- 1) *what do you want to monitor?*
- 2) *why do you want to monitor it?*
- 3) *what actions will you take?*

by mining the data and monitoring devices sensors if available for real time decision analysis and alerting. Real-time, continuous and non-intrusive observation of the defined devices and correlation of the received data to defined thresholds, conditions to be monitored and the frequency conditions to min order to prevent, report and take the appropriate actions in the event of a failure.

- Avoid catastrophic events
- Detect and prevent asset failures
- Improve maintenance through forecasting and trend analysis



Condition-Based Maintenance (CBM) (2)

Technologies & Process



Web enabled application that mines data & sensors for real time visibility of critical components' status, filtering out abnormalities and identification of failures causes.

1. Definition of Asset's Operating Context

- The normal limits (threshold) in which an asset operates within
- STARplus provides the ability to **capture data and filter out abnormalities**

2. Definition of Asset Functions

- STARplus provide an array of adapters to **easily tab into your existing data sources**
- STARplus ensures that an assets is achieving its desired objectives by **continuously monitoring** its condition in **real-time**

3. Determination of possible failures

- STARplus requirement analysis process **helps determine obstacles** to achieving early detection of asset faulty condition
- STARplus **data mining** capabilities enhances your **root/cause & failure forecasting analysis**

4. Identification of failures causes

- Through its embedded **business intelligence and data mining** modules, STARplus empowers you with a set of tools critical for maintains efficiency

5. Failure Effects

- STARplus supports customizable if/else scenarios that helps in **predicting and preventing possible future failure effects**

6. Corrective Actions

- An array of automatic and **real-time notification** mechanisms are part of STARplus framework (e.g. web, email, SMS, telephone)



Automatic Access and Asset Control (1)



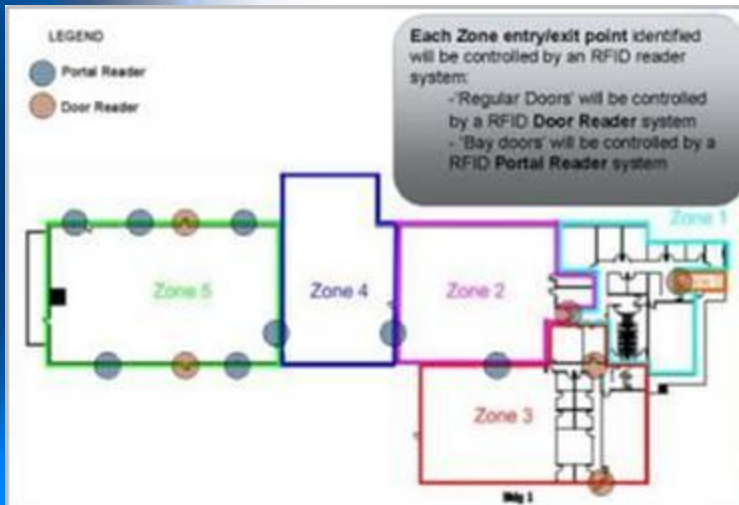
Challenge

Provide means for a dynamically controllable facility access control system that provides security through personnel and vehicle access control as well as control of critical assets concerning movement, association and 'chain of custody'.

Solution

A system solution will utilize a variety of RFID technologies to automatically control the access to and the movement of personnel and assets within a defined secure area.

- Support a configurable variety of access levels that can be combined with force protection levels to restrict access privileges and to require intensified personnel authentication as the need arises
- Secure critical assets with secure facilities through
 - association of critical asset with assigned or privileged personnel
 - Go/No-Go "Zone" Control within a facility





Automatic Access and Asset Control (2)

Technologies



Security Management System provides real-time access control management and event notification in cases of security breach incl. alert notification and alarm system activation



Different RFID tag types for control of personnel critical assets:

- RFID-enabled CD/DVD Tag for control of electronic files
- Ruggedized RFID tags for electronic assets



RFID Readers and antennas in different configurations to support wide variety of access control points, e.g.:

- Office entrances and bay doors
- Gate access for vehicle traffic



Specialty Applications (1)



Challenge

The complexity and wide range of defense operations and assets often require unique specific logistic solutions, that provide a special focus on mission objectives and that often do not allow for a 'transfer of standard industry solutions or technologies'.

Solution

Design of unique system solutions that utilize specialized technology components to address critical asset characteristics such as

- the tagging of steel drums for petroleum-based or chemical products

or that integrate previously separated processes such as

- the integration of UID and RFID in the marking, storage and transportation of small arms
- the automation of system configuration and property accountability operations



Specialty Applications (2)

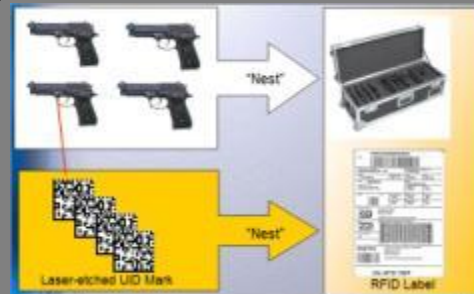
Technologies



RFID-enabled Integrated Mobile Marking Solutions to readily mark and register accountable items in compliance with the Department of Defense Unique Identification (UID) policy



Specialized, ruggedized pRFID Smart labels, HERO / ATEX certified for use with flammable/explosive products, such as petrochemicals in steel drums



Specialized technology and process integration applications, as shown by the UID/RFID integration for the Small Arms Marking project.



Delivery Mail Flow Analysis Tool (DMFAT) (1)



Challenge

Despite Postal Automation efforts, savings are not accurately captured at Delivery level.

No Accurate mail volume recording due to manual tasks related to mail processing captured

Solution

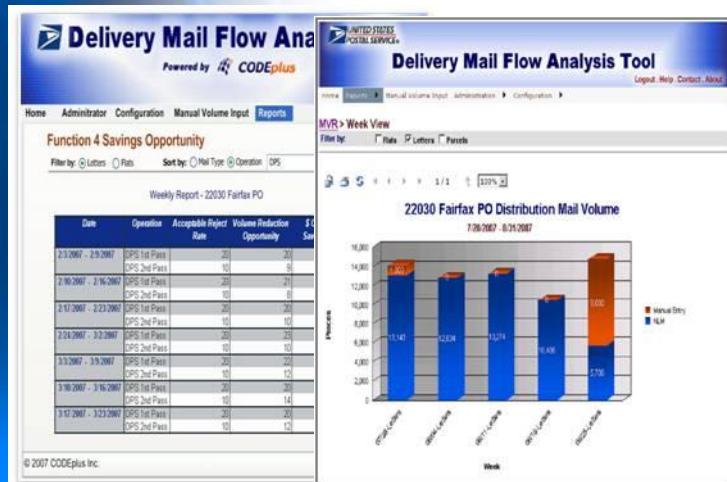
DMFAT is a STARplus secure web-based delivery management and optimization tool that allows to accurately count mail flow, forecast the amount of mail volume arriving and identify saving opportunities.

DMFAT capabilities:

• Integration and leveraging of existing processing and transportation to delivery in the area:

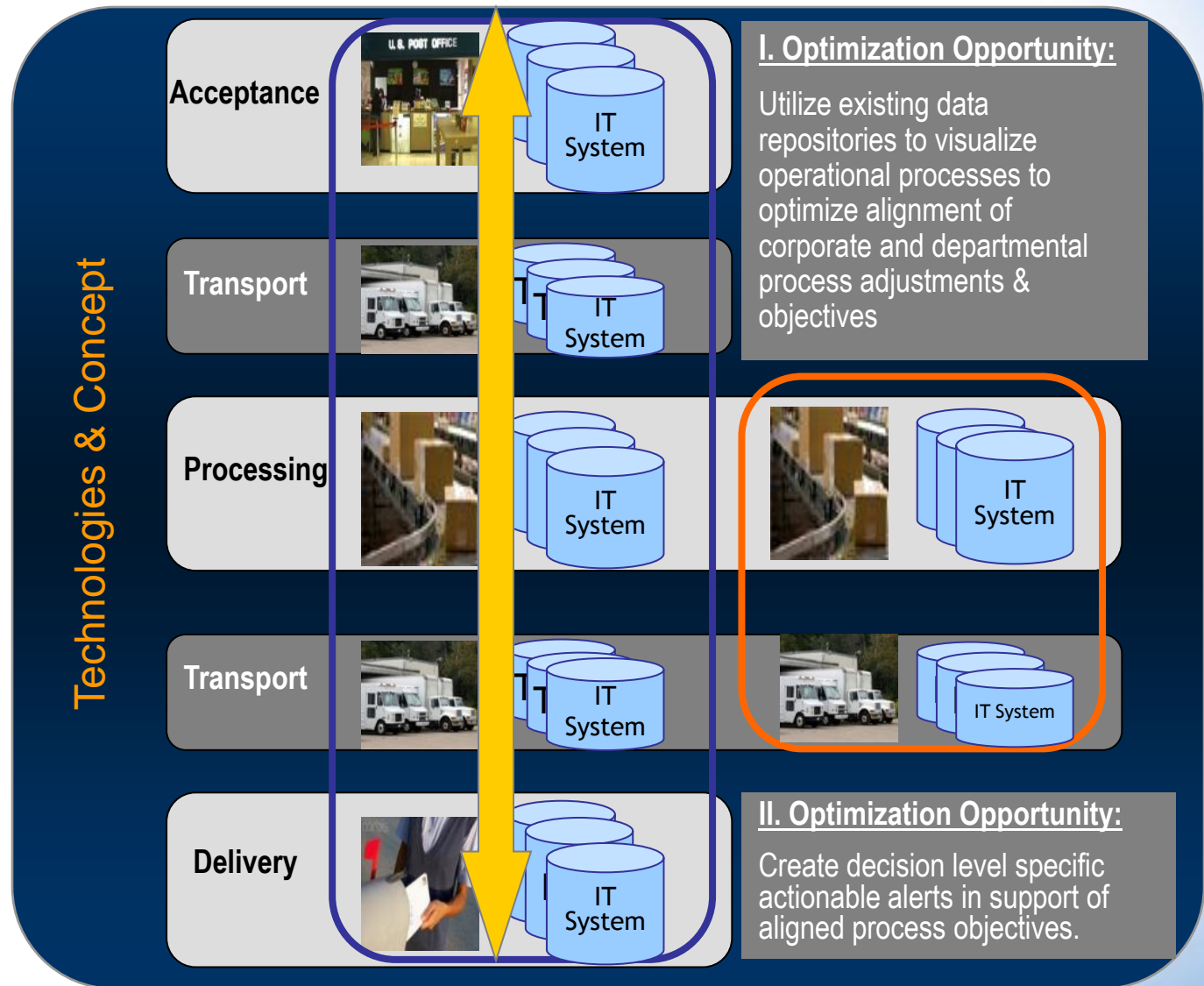
- Forecasting volume and type of the mail
- Measuring the impact of automation reject from processing on the delivery unit workload

- Calculation of potential automation leakage
- Routes optimization
- Calculation of lost labor savings





Delivery Mail Flow Analysis Tool (DMFAT) (2)





For additional information
contact:

Jinan AbouShakra

jshakra@code-plus.com

www.code-plus.com

(703) 846-0030 ext. 101