



Effective Asset Management Industry Data Platform

Business Case

Lets Talk Business

- In a down market, businesses cut labor, squeeze vendors and slice marketing. In an expanding market, businesses need to squeeze more productivity from existing assets. **Effective asset management** yields better returns in any market condition.
- Visibility is the key to improvement. You can't improve what you can't see or measure.
- Doing more with less is the key to profitability.
- Automate any and all processes possible. Reduce errors and repetitive actions.
- Technology, in and of itself, is not the answer. Technology must be in harmony with existing processes and integrate seamlessly into the operation.
- The better you can control your variables, the more efficient you can run your operations.

Industry In Flux

- Chassis provision in North America is changing
 - Chassis co-ops make operational/economical sense
 - Shipping companies are outsourcing fleet equipment cost and IEP responsibilities
 - Movement from long term leases to per day 3rd party day charges
- Pioneering industry-wide solutions requires cooperation
 - Systemic change takes time
 - A common platform to do business is required
- Accuracy and timeliness of information is paramount to success
 - Visibility by individual asset is critical
 - Accountability, tracking and billing
- Interoperability is vital
 - Many stakeholders across vast geographies with disparate IT systems

Facing the Challenges

- Industry stakeholders must compete but cooperate
- The industry is built on proprietary silos and systems
- EDI transaction data for chassis is inaccurate and not timely
- Currently, everyone tracks the box not the chassis
- Current co-op pools are struggling with accurate chassis tracking, utilization and accountability to its members
- Automatic equipment identification (AEI) is challenged because entire fleets must subscribe to a common ID method
- Technology and deployment is expensive

What Are Your Requirements?

- Anytime/anywhere locating is a “nice to have”. However, it is not practical and is not required for most businesses.
- Unique challenges:
 - Operating in heavy metal environments and harsh conditions (dirt/weather)
 - Backend systems are non-standard, mostly home-grown with varying levels of sophistication
 - There are many levels of stakeholders needing access to the data (transportation, logistics, governmental, customer). Also, all have varying levels of security structures.
- Matching the real tracking needs, technology application, and operation requirements with the business metrics usually stops the conversation

Keys to Successful Utilization/Accountability

- **Automation.** Accurate and timely data origination is the key. Errors in data and latency in data delivery yield bad management decision making. The information system is never better than its collection accuracy.
- **Not all data is useful.** Tracking assets through key interchange points delivers 95% of the usable data needed. Only in the case of tracking rolling stock over the road does active tracking make sense. IE: High value shipments, hazardous goods, etc. Tracking key interchange points delivers significant data for tracking, dwell time calculations and turn-times.
- **Utilize a common platform.** A network or clearing house is critical for the collection of internal tracking data, aggregation of various pertinent outside data, and security of all data for each stakeholder.
- **Timely Data.** Real time views are required to be effective for daily operations.
- **Manage information.** All data must be assimilated and presented in a form for effective management decision making. IE: Load balancing and forecasting matches incoming boxes with existing chassis inventory, providing closest locations if repositioning is required. Granular data by asset, transaction, date, location, time, and owner is parsed and presented to solve logistics issues.
- **Data exchange.** Due to the lack of standardization in Terminal Operating Systems, a separate interoperable network is necessary to support an industry-wide solution.

Why Prime7 Makes the Best Business Case

- Centralizes the data for equipment management and control
- Originates and processes tracking data for accuracy and timeliness by region, facility, time and status
- Tracks chassis by RFID tags and tracks containers by associating the box with the chassis. (Containers can also be tagged and tracked separately)
- Provides real-time inventory view for all key transaction points including rail terminals, CY facilities and Distributions Centers
- Custom reports provide asset specific data to manage load balancing, time sensitive logistics, asset allocation and utilization
- Enhances, facilitates and augments current yard management systems and enables “slot based” yard management
- Enhances security and tracking logistics
- Improves asset utilization and drives profits

Prime7 Applications

Industry-wide Platform Design

Internal Fleets or Pooled Co-Op Management

- **Asset Management Systems**
 - Hosted Central Database System
 - Fixed Reader Systems
 - Passive RFID Based
- **Slot-Based Inventory Management Systems**
 - Interfaces with existing yard mgmt system
 - TRAC7 Host Software
 - Mobile Inventory System
- **Platform for Integrating Applications**
 - Yard Management
 - Fleet Management or Chassis Pool
 - M & R
 - Governmental Compliance Requirements

Prime7 Deliverables

- **Provide a common technology platform for key data interchange**
Track assets deployed throughout separately owned and managed intermodal facilities with varying technical capabilities
- **Track Key Transaction Points**
Network ports, rail depots, intermodal terminals and container yards for logistics data through a central clearing house to increase visibility, logistics efficiency and eliminate lost or misallocated assets
- **Efficiently provide data**
Provide Real Time and Historical data to manage inventory efficiencies resulting in higher utilization and lower cost
- **Integrate multiple applications to track key data throughout the life of the asset**
- **Seamless integration without disrupting current operations**
Prime7 manages the installation and activation of the hardware, software and network operations.

Real World Technology

- Proven technology: highly accurate and reliable
- Passive RFID tags (No battery required)
- RFID tags designed for use in extreme climates (Military Spec)
- Specially designed for heavy metallic environments
- Tags can be read through snow, dirt, etc.
- Designed for 15+ years (Tags good for life of chassis)
- Tags can be read up to 40 feet
- Chassis can be read from either side or front, stacked and/or racked
- RFID proven technology currently utilized in supply chain logistics

Prime7 Systems Business Case

Our business model provides asset tracking and fleet management tools for single user or pooled asset applications. Additional application interfaces and information deliverables are priced separately. We leverage our capital cost across many customers to deliver cost effective pricing, delivering high value information at the lowest cost.

- **No Cap-Ex Requirements**
 - Monthly service fee per asset tagged
 - No charge to facilities for gate readers
 - Facilities only charged for expanded applications
(Mobile Inventory, Dock Gate Reader System, Handhelds, Integration w/ Local Mgmt sys)
- **Seamless Integration – We Do The Work!**
 - Tag assets, install readers/network, provide mobile inventory equipment, database, application hosting, and overall system operation/maintenance

Financial Highlights

Intermodal Operator/IEP – Internal Fleet Analysis

- Business Case
 - 27,500 chassis, 27 locations tracked
 - Increase efficiencies/utilization by 10% - Saves \$3.3M/Year
 - Reduces M&R/Damage – Saves \$1.5M/Year
 - Reduces chassis repositioning - \$1.2M/Year
 - Labor/IT/Mgmt Time Improvement - \$2.7M/Year
 - Cost: \$2.1M/Year Savings: \$8.7M/Year
- Outsourcing mitigates IT investment in hardware and software
- Cost effective solution for consolidating equipment management
- Lowers cost of management (time) by providing accurate inventory information in real time
- Reduces repositioning fees by increasing data accuracy and forecasting

Financial Highlights

3rd Party Day Rate Billing

- Business Case
 - 100,000 chassis @ \$11/day – Revenue Generated: \$401 Million
 - Current error rate in tracking and EDI – Minimum 10%: \$40 Million
 - 100,000 chassis @ .25/day – Cost \$9.125 M
 - Savings: \$30.9M
 - + Operational, M&R, & Utilization Benefits
- Outsourcing to a common platform mitigates IT investment in hardware and software
- Supports 3rd party billing and accountability
- Cooperation delivers cost effective solution for consolidating equipment management for everyone
- Lowers cost of management (time) by providing accurate inventory information in real time
- Reduces repositioning fees by increasing data accuracy and forecasting

Financial Highlights

Port Operations

- Business Case

Prime7 Passive Tag System

- 1.25M gates/yr @ \$.50/transaction – Annual Cost: \$625,000
- Cost of tags charged to equipment owner - \$10 per tag (self-installed)
- Data Service Included
- System Maintenance Included

Competitive Active Tag Systems

- Up front infrastructure cost - \$500 K to \$1.0 M
- Cost of tags charged to equipment owner - \$50 per tag (self-installed)
- Data Service Extra
- System Maintenance Extra

- No “up-front” cost for equipment, billed on a transaction model
- Low infrastructure requirements
- No business disruption during installation
- Outsourcing a common platform mitigates IT investment in hardware and software
- Automated equipment ID delivers 99.99% accuracy and accountability to support compliance and individualized billing
- Centralized platform delivers cost effective solution for tracking equipment and owners
- Streamlines processes and lowers cost of management (time)
- Identifies exceptions quickly and efficiently

Summary

Making Your Assets Work for You

- Supports industry-wide business model change
- Shares cost of infrastructure
- No Investment in “Middleware”
 - Prime7 delivers information interoperable with the customer’s IT backend
- Proven Technology and Methodology
 - Accurate data origination and acquisition
 - Turns data into information
 - Provides analytics for better business performance
- Single platform for integrating multiple applications
- Interoperable and backwardly compatible with any current IT applications
- Improves utilization and profit without disrupting operations

Tracking Technology Comparison

System Components	Anytime/Anywhere Systems	Prime7 Systems
Tag Technology	Active (Battery Powered) GPS	Passive RFID/ Unique ID Specific to heavy metal environments 40' line-of-sight proximity
Infrastructure	At Facility – Ethernet or Wi-Fi Network Required – Distributed Power to Beacons / Access Points Outside Facility – Cell/Satellite Connectivity	At Facility - Standard 110v Power, Existing Ethernet or Local Fixed point readers
Communication Link	Primary - Ethernet, Wi-Fi, Cell, Satellite	Primary – Ethernet, Wi-Fi or Radio Networks Back Up - Cell, Satellite
Backend	Hosted data platform GEO fence areas for auto reporting	Hosted data platform Gate/portal readers for automatic reporting
Advantages	Locate assets anytime/anywhere between facilities Potential for “smart tag” features (sensors)	Asset reporting via point to point tracking - integrates key transaction facility network Leverages all contact points/stakeholders in network Highly accurate, reliable system No cap-ex required / Contract for services High ROI (operating expense basis) Augments automated facility operations

Tracking Technology Comparison

System Components	Anytime/Anywhere Systems	Prime7 Systems
Reliability	Dependent on cell/satellite networks GPS read and connectivity difficult in heavy metal environments (within facilities)	99.9% read accuracy Stable connectivity via internet Automatic redundancy via cell/sat network Local internal transaction data storage
Cost	High Cost <ul style="list-style-type: none"> - High Hardware \$55 - \$400/active tag - High installation cost - High connectivity cost (Cell/Satellite) - High Ongoing maintenance Cost (Replace Batteries) - Capital investment required - If offered as a service: \$7+ per day cost 	Low cost <ul style="list-style-type: none"> - Fixed cost / asset / year (Cents per Day) - No maintenance/repair/IT expense - Turn-key service provider
Challenges	Physical location of tag on chassis/container Connectivity within facilities Ongoing maintenance Battery life Return on investment – cost v benefit	No in-transit tracking between facilities



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