Virtual-to-Real World Intelligence

Asset tracking intelligence pilot offer

The offer is valid until 15 August 2019
Your warehouse through virtual or real "eyes" of ProxiTrak

SENSOR ANALYSIS – FULL ASSET MANAGEMENT THROUGH THE WAREHOUSE

VIRTUAL OR AUGMENTED REALITY

NUMBER OF TRANSITIONS AND TIME SPENT IN CHOSEN WAREHOUSE ZONES

FLEET MANAGEMENT

DWELL TIME

ASSET FLOW

VIRTUAL OR AUGMENTED REALITY

3/22/2018
ProxiTrak- logical view of the warehouse

LOGICAL WAREHOUSE

MULTISENSOR PLATFORM

Transition analysis  Dedicated reports  Alerts  Forecasts

OUTPUTS

REAL-TIME DATA

INPUT

Scheduling Automation  Zone Identification  Movement Analytics  Sensor data

IN and OUT

INTEGRATION WITH EXTERNAL SYSTEMS

ZONES

FORKLIFT OPTIMIZATION

ASSET DWELL TIME

POINT-TO_POINT VISIBILITY

INPUT

INPUT

REAL-TIME DATA

OUTPUTS

Dedicated reports  Alerts  Forecasts

INPUT

INPUT

REAL-TIME DATA

OUTPUTS

Dedicated reports  Alerts  Forecasts

INPUT
Our technology builds your virtual infrastructure ...

..from your existing floorplan

..optimizes it...

....to maximize coverage

...and synchronizes it with your real-world infrastructure

...deployment in days not weeks
Our technology processes sensor data ...

..from asset observation and surveillance

...and convert this info into metrics and real time alerts
ProxiTrak – key features from the cloud

VIRTUAL TO LIVE CAD INTERACTIVE TRACKING
IN AND OUT SHIPPING & RECEIVABLES
ZONE MOVEMENT OPTIMIZATION & ANALYSIS
REAL-TIME ZONE INVENTORY SCHEDULING
GLOBAL DATA FROM 1 LOCATION
The problem and how we unlock value
Weakness of existing methods of providing IOT/RFID Solutions

CURRENT METHODS
- Costly and timely site surveys that require multiple personnel
- RF coverage, data rates, signal obstruction and antenna RSSI analysis is time consuming and costly process
- Not true real-time data; long lead time from analysis to decision
- Inability to perform scheduled real-time inventories
- Inability to negotiate infrastructure changes quickly
- Inability to aggregate and display global co-located data from a single location

PROXITRAK SOLUTION
- Site surveys, installation, deployment, integration and metric verification in terms of hours and days not weeks and months
- RF coverage, data rates, signal obstruction, antenna RSSI analysis is automated and provided by the software
- True Real time data; provides more accurate and quick decision making
- Automatic alerts notify you off specific events that occur in your tracking process
- Promotes cost effective processes
- Combine all global RFID/IoT data under one location - ProxiCloud umbrella
Benefiting business functions:

- Competition
- Consumer Demand
- Inventory accuracy/reduced time
- Reliable Track and Trace
- Improve business processes

OPTIMIZE YOUR SUPPLY CHAIN MANAGEMENT – GET MORE DONE IN LESS TIME AND WITH FEWER RESOURCES BY…
1. Assess the visibility of assets departing and arriving to your location:
   - cost of manual labor vs automation
   - cost of legacy to modern conversion (barcode to RFID/IoT sensors)

1. Assess your asset tracking performance depending on:
   - Paradigms and processes (cost of manually vs automatic scanning)
   - Signal/Carrier Obstacles (effect of obstructions in scanning areas)
   - Carrier Types (effect of material types of tag containers)
   - Persistence of Assets (asset dwell time in scanning zones)
   - Other changes (infrastructure, remodeling, etc.) and their effect on scanning and interrogation
   - External factors such as weather, events, others…

2. Access the accuracy of labeled asset data in your warehouse:
   - Barcode UPC vs RFID EPC
   - Direction of movement
   - Programming Tags (cost of manually vs automatic assignment of data)

AND ONCE YOU HAVE THE ASSET IN THE WAREHOUSE…
1. **ASSET MOVEMENT AND DWELL TIMES IN RESPECTIVE AREAS OF YOUR WAREHOUSE TO HELP YOU ASSESS THE EFFECTIVENESS OF:**
   - Your product exposition on driving customer flow through the areas of interest/ highest margin/ largest volume etc.
   - Site-to-site communication initiatives to identify areas of interest/ highest margin/ largest volume per site
   - IoT/RFID layout and how this drives process behavior within the warehouse

2. **AVAILABILITY OF FORKLIFTS IN CRITICAL WAREHOUSE AREAS (SHIPPING, RECEIVABLES, STORAGE AND MANUFACTURING) VS ASSET FLOW AND ASSESS THE:**
   - Availability of forklifts vs asset presence trends to help you better meet your supply chain needs
   - Time of service of forklift operations in service areas to better help you assess the utilization of resources
   - Shortest time vs shortest distance of forklift routes to help you assess supply chain trends
   - Real time information provided for forklifts/assets in storage or service areas to provide better planning on warehouse events
   - In and out service times of forklifts/assets to help drive initiatives to improve the service times (comparing to # of SKU’s, average forklift routes and servicing times)
   - Assess the performance of your newly hired employees (speed of learning curve) to be able to more quickly detect new hires that are not performing to an appropriate level and may require additional training or potential replacement
BENCHMARKING

• Perform A vs B testing to assess the effect of RFID/IoT layout, asset transition analysis, co-located site data aggregation, and warehouse layout changes prior to incurring expensive roll out initiatives within your entire network.

• Assess the quality of your warehouse vehicles, management, staff based on warehouse metrics (movement rates and average cargo/package/pallet quantity).

• Optimize your IoT infrastructure layout and warehouse communication (to increase supply chain schedule efficiency).

• Optimize your staffing levels to meet trends in asset/forklift behavior (depending on highest traffic zones).

• Understand your rate of loss or missing assets and average missing rate on a per asset basis based on forklift movement to particular zones in the warehouse.
**ASSET AND FORKLIFT OPTIMIZATION**

- Based on historical asset/forklifts flow and movement trends you will be able to better plan your supply chain needs on an individual schedule or event level.

**CONTINUOUS INFRASTRUCTURE OPTIMIZATION**

- Alleviate redeployment, installation and integration technological complexities by easily and negotiating changes of warehouse designs and site modifications.

**GLOBAL, REGIONAL AND LOCAL DATA AGGREGATION**

- Easily expand the scope of multiple geographical warehouses and manage larger data sets; realizing faster time to value.
- Real-time IoT global aggregation ensures higher quality data from multiple locations simultaneously; allows focus on business-critical data elements.
- Unified platform streamline the complexity of matching, cleaning and preparing IoT data – including globally co-located big data – for business intelligence (BI).

**IMPROVE THE ASSET-FORKLIFT JOURNEY EXPERIENCE**

- Limit the cost incurred on inappropriate IoT RFID layout decisions.
- Trust insights on assets locations at specific locations.
- Assurance of all routes an asset has traveled.
- Conveniently monitor and record the exact route an asset traveled from one location to another.

3/22/2018
1. Proxigroup simply takes your building blueprint, floorplan or design and...

2. Installs all necessary hardware for your solution then...

3. Build's your virtual 2D or 3D IoT or RFID infrastructure and synchronizes it with your real-world physical infrastructure (hardware), renders it “live” then...
How does it install and deploy? (2/2)

4. Optimizes to maximize the effectiveness of your infrastructure detecting obstacles and ensuring the highest signal coverage...

5. Installation is complete with the display of real-time data viewable from the cloud. Normally it only takes a few days from concept to deployment. At anytime during testing, verification or installment you have the ability to go back and redesign and re-optimize on the live floorplan (site survey) without any loss of service.
How it works?

Full path of the individual assets through the warehouse from the moment of entry to exit with specification of all of the areas, touchpoints and time spent in each zone.

Information is presented “live” in a graphical format on our cloud portal analytical panel.

The distribution and size of the areas to be analyzed is flexible and possibility exists to rerun the full path of the individual after modification of areas boundaries in the future.

...and can provide BI analytics from multiple sites globally.
Asset movement to and from Zone

ProxiTrak has the ability to analyze asset movement traffic in and out of any zone. The area which can be covered depends on the placement and scope of view of the antenna.

Here’s a look at a typical in and out installation of antennas that monitor paths inside and outside of zones warehouse.
Pilot approach
Insights delivered during the pilot

Real-time Individual traffic

- Exact zone location of asset in real-time
- Type (Model/Make/Mfg./EPC) of Asset
- Current time of asset transitions
- Duration time of asset in zone
- Direction of movement of assets within the particular zone/warehouse
Insights delivered during the pilot

Real-time inventory

- Interactive live 3D floorplan
- Selection of zone provides zone inventory quantity and tag data
- Get full site inventory “now”
- Type of assets inventoried
- Date/Time last seen in particular zone
Real-time inventory scheduling

- Create schedule that will inventory any zone or zones when a specific system event occurs.
- Create schedule that will inventory any zone or zones on a specific time, for daily, weekly or monthly schedule.
- Execute inventory on a specific time on a monthly day-of-week schedule.
Real-time inventory scheduling

- Shows event date and times
- Can select event to drill down to schedule details
- Displays active, inactive and number of times a job has executed
- Shows the next job in queue
- Shows job that last executed
Real-time inventory scheduling

- Highlights zone where scheduled job is “live” and active
- Displays current job name, last time the job was executed, number of times missed and job type
- Displays the list of tags inventoried by the job
Insights delivered during the pilot

**Historical playback traffic**

- Total number of assets entering/leaving your warehouse per hour/day/month? (Actual vs Expected)
- Type (Model/Make/Mfg./EPC) of Asset
- Total/Average time of asset transitions
- Total/Average time asset remains in a particular zone/warehouse?
- Direction of movement of assets within the particular zone/warehouse
Insights delivered during the pilot

**IoT Ecosystem**

- Which zones in the warehouse have the most and least traffic in terms of in/out?

- Which zones in the warehouse are the most and least residence in terms of time spent in the zone?
Insights delivered during the pilot

Asset/Forklift metrics

- Analysis of what moved, how much and how fast
- Avg and Max time of forklift route
- Avg and Max dwell time of forklift in zones
- Total number of route; facilitates optimization
## Estimation of devices for predetermined infrastructure spaces

<table>
<thead>
<tr>
<th>Infrastructure No.</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure area</td>
<td>200 m²</td>
<td>400 m²</td>
<td>8000 m²</td>
<td>1000 m²</td>
<td>50000+ m²</td>
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<tr>
<td>Height of the ceiling</td>
<td>3 m (only needed for antenna ceiling installations)</td>
<td>8 weeks</td>
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<tr>
<td>Hardware/Cloud components</td>
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</tr>
<tr>
<td>Reader</td>
<td>2 units</td>
<td>4 units</td>
<td>8 units</td>
<td>16 units</td>
<td>32 units</td>
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<tr>
<td>Antenna</td>
<td>8 units</td>
<td>16 units</td>
<td>24 units</td>
<td>64 units</td>
<td>128 units</td>
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<tr>
<td>Cloud</td>
<td>1 account instance</td>
<td>1 account instance</td>
<td>1 account instance</td>
<td>1 account instance</td>
<td>1 account instance</td>
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<tr>
<td>Tags</td>
<td>0-1,000</td>
<td>0-5,000</td>
<td>0-10,000</td>
<td>0-100,000</td>
<td>0-250,000+</td>
</tr>
<tr>
<td>Features</td>
<td>CAD Infrastructure design (virtual-to-live)</td>
<td>Full asset movement path (real-time, history playback)</td>
<td>Access to dashboard (2 changes in Interface for free)</td>
<td>Maintenance</td>
<td></td>
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</tbody>
</table>
### Estimated cost of pilot per infrastructure space type (1)

<table>
<thead>
<tr>
<th>Infrastructure Size</th>
<th>200m²</th>
<th>400m²</th>
<th>600m²</th>
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</thead>
<tbody>
<tr>
<td>Installation, optimization, deinstallation (2)</td>
<td>1,000-2,000 USD</td>
<td>2,000-4,000 USD</td>
<td>4,000-8,000 USD</td>
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<tr>
<td>Cloud Configuration (Account &amp; Database, Creation, VPN, Virtual Machines, etc.)</td>
<td>1,000 USD</td>
<td>1,000 USD</td>
<td>1,000 USD</td>
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<tr>
<td>SaaS Subscription (Pilot duration) (3)</td>
<td>750 USD</td>
<td>750 USD</td>
<td>750 USD</td>
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<tr>
<td>Hardware (Readers &amp; Antennas) (4)</td>
<td>1000 USD</td>
<td>1000 USD</td>
<td>1000 USD</td>
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<tr>
<td>Medium (Cables, brackets, tags) (5)</td>
<td>250 USD</td>
<td>500 USD</td>
<td>1000 USD</td>
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</table>

1) Prices are estimates in net terms, and will be grossed up for applicable VAT. Pricing is also based on subscriptions per reader per month.

2) Price of hardware and installation is based on the assumption that we acquire 3rd party installation service. This price can be ignored if the client or integration performs this task.

3) Prices based on Proxitrak Software usage on each reader per month with subscription per month. Discount is relevant to subscription length. See A below.

4) Hardware (per unit) discount assumes readers are returned to Proxigroup following conclusion of pilot. If pilot is extended to a full service paid amount for hardware is treated as down payment of full hardware price to be reimbursed upon roll out.

5) Dependent on type & quantity

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A. Proxitrak pricing SaaS Subscription discount is based on Percent of Total. Subscription length of 6 months is 15% discount of total price. 1 year or more qualifies for 20% reduction of price. For example: ProxiTrak SaaS will be $750.00 per Reader. A 15% discount will be $637.50 per reader based on a 6-month subscription. A 20% discount will be $600 per reader based on a 12-month or more yearly subscription.
# Pilot Schedule

Assumes a business user is assigned from week 1 to define exact metrics/ KPI's

<table>
<thead>
<tr>
<th>Weeks</th>
<th>Start</th>
<th>1.</th>
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<th>End</th>
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<td>Final presentation with pilot results</td>
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<td>Data analysis</td>
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<td>Data collection</td>
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<td>System Optimization</td>
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<td>Cloud Configuration (VPN Security)</td>
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</table>

Constant cooperation between business user assigned to POC and Proxigroup delivery team on defining and developing metrics

3/22/2018
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