2016 GEORGIA LOGISTICS SUMMIT
Roundtable 3d
Tackling Operational Visibility Through Technology
Applying Operational Visibility to Sunbelt Rentals
QUICK FACTS

• Rapid Growth
  – $3.2B in Revenue ($1.1B in 2010)
  – 21% for 2016
  – 600 Store Locations in US and Canada

• Fleet
  – $4.8B in Rental Fleet
  – Over 3,500 On-Road Fleet to Move Rental Equipment

• IoT Investment in Trucks and Larger Fleet Items

• Competitive Advantage using Mobile Apps
Business Challenges

- 73% of Reservations taken less than 24 hr before Delivery
- No Set Routes
- Maximize Delivery & Pickup – Minimize Dead Runs
- Rental Equipment Size Variation
- Driver Behavior
GAINING VISIBILITY THRU INTERNET OF THINGS

BLACKSTONE & CULLEN REFERENCE ARCHITECTURE
VDOS – Vehicle Dispatch Optimization System

- GUI Tool for Dispatching
- Integrated into ERP / POS Solution
- Telematics – GPS Tracking on all Vehicles w/ 30 sec tracking intervals
- Run Scheduling by Driver and Type of Vehicle
- Solution considers volume, weight, and inventory
- Visibility at Branch and District level
- Schedules Delivery, Pickup, Service Calls, etc.
- Drivers have complementary iPhone App to manage statuses, messages, etc.
Customer Portal & Mobile Apps in Place

Value Proposition to the Customer

• Real-time Equipment Utilization – Both Rental and Customer Owned
• Location Mapping
• Contract Details

Delivery & Pickup Dashboards

Real-time Logistic Updates
Improves Customer Business Management
# INITIATIVES BY WORKSTREAM

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<th>Customer Experience</th>
<th>Revenue</th>
<th>Logistics Optimization</th>
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<td>Auto Notify Future Rentals</td>
<td>Singular Portal / Mobile Customer Experience</td>
<td>Predictive Seasonal Demand Re-Allocation Aerials</td>
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<td>Sync Rental Activity with Customer Calendar</td>
<td>Customer / Executive Dashboard</td>
<td>Dynamic Routing Prescriptive Model</td>
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PREDICTIVE FLEET ANALYTICS

• GOALS
  – Maximize time on rent
  – Minimize downtime for transit, maintenance
  – Predictive weather impact
  – Seasonal allocation by Item Type – Aerator
  – Minimize stock outs
  – Predict next most likely rental

• Use IOT Data Sources
  – Telematics
  – Weather service
  – Rental history
  – Contractor project profile
  – Fleet profile by location
OUTCOMES BY DESIGN

• Improve Customer Experience
  – Reduce inventory stock out

• Revenue
  – Increase fleet utilization - target 2% or $60M

• Logistics Optimization
  – Know exact driver location and activity real time
  – Know status and location every major fleet item is real time
WHY BLACKSTONE & CULLEN

• Long History of Working Together at Multiple Companies
• Execution
• Focused on My Business and Profit First Supported by Technology
• GSD Mentality
• Their Team – Incredibly Knowledgeable with a Bias Toward Action
  – Frank Cullen, PhD IEOR GaTech Owner 40+ Yrs Experience
  – Lee Blackstone ISyE Ga Tech Owner 40+ Yrs Experience
  – Brent Goolsby ISyE GaTech Principal 25+ Yrs Experience
  – David Livingston IS GaSou VP Solutions 25+ Yrs Experience
• Patience …
• Character and Trust
Thank You

Kirby Miner – Sunbelt Rentals
Lee Blackstone – Blackstone & Cullen, Inc.
Tackling Operational Visibility Through Technology Integration

April 19, 2016
2:00 – 3:30 pm
JW Aluminum

- Innovator in the aluminum flat rolled products market
- 4 state-of-the-art aluminum mills
- Weekly outbound shipping of > 7MM lbs
LeanCor Supply Chain Group

Trusted partner that specializes in lean principles to advance supply chains

We Teach. We Consult. We Do. | www.leancor.com

Lean, Supply Chain, Six Sigma, Leadership Courses
Public, Private, Online Settings

End-to-End Supply Chain Advancement Solutions
Diagnostic, Assessment, Design, Deployment

Full-Service 3PL Solutions
Logistics Engineering, Transportation Management, Warehousing
JW Aluminum Supply Chain Management

- **Challenge:** Insufficient Visibility and Control
- **Needs:** Supply Chain Management, Systems Capability, Automation, and Visibility

4 Manufacturing Locations in the US

Domestic Customer Distribution
Partnership History

- Following the centralization of its logistics, JWA identified the need for a single, **dedicated 3PL solution** for outbound freight.

- JWA could accomplish its desired objectives and focus on core competencies while providing **visibility and stability** within the outbound supply chain.

- In 2009, JWA conducted a competitive bidding process and selected LeanCor as its partner, because LeanCor demonstrated:
  - Advanced IT Systems
  - Process Innovation
  - Detailed Roadmaps Toward System-Wide Lean Implementation Efforts
Visibility and Stability Through Supply Chain Technology

• Streamlining and Automating Lean Transportation Processes
• Logistics Control Tower
• Collaborating with Supply Chain Partners
• Seeing at the Dock-Level
• Integrating at the SKU-Level
• Managing Discrepancies
• Integrating with Systems

10,000+ active daily log-ins
7,500 suppliers
3,000+ outbound locations
85 inbound delivery plants
400+ carriers
Management Systems
Supply chain planning through the Orloe Toolkit cloud-based platform

- Planners
- Docks
- Carriers
- Suppliers / Customers
- Senior Management

Automated Carrier Management
Shipping Activity Visibility
Supply Chain Planning
Results - Cost Reduction and Supply Chain Control:

- 19% Reduction in Freight Spend in 1st Year
- Annual Savings Targets
- Freight Budgeting
- Supply Chain Analytics
- Carrier Performance
- Carrier Stratification

“We are very happy with [LeanCor’s] performance and we couldn’t have done it without them. They were a critical part in helping us achieve the best quarter end JW has ever had. We are very excited about our partnership with LeanCor and look forward to growing our businesses together.” - COO at JWA
Looking Forward

2016 Objectives:
- Targeted Freight Savings
- Supplier ASN Management
- Static Network Expansion
- On-Site Visual Management Upgrades
- Conversion of Supplier Managed Freight
- Support of JWA To Go

LeanCor provides continued support for JW Aluminum technology improvements.
AC Lens Company Overview

- Online retailer of contact lenses, eyeglasses and other optical products
- Founded in 1995 selling on-line to consumers since 1996
- Second largest direct to consumer contact lens e-tailer in the USA
- Fulfillment- Over 2.2 million customer orders through a variety of retail and wholesale relationships
- Located in Columbus, Ohio – Central US Distribution
- Our 170 associates handle everything from website design and hosting to customer service and fulfillment
- We manage a total of 20 websites for ourselves and partners
Numina Group Background

- Established in 1986 … founded by Dan Hanrahan & Mark Woodworth
- Privately held … zero leverage
- Headquartered in Woodridge, IL
- Full turn-key order fulfillment solutions provider
- Engineering design team experienced in technology & operations
- WEC/WCS Software yielding the Perfect Order Process → RDS
- 24/7 support hotline
- In-house engineering and development teams
  - Software development and support
  - Lean process evaluation
  - Engineering design services
  - Operational analysis
  - Field service team
  - Execution management (PMO)
Challenges at AC Lens

- E-commerce business growth exceeding DC operations … paper based O/F system w/ manual discrete picking
- Order demand projections would strain AC Lens’ existing processes with an estimated 40% increase in staffing levels
- Concerns with order accuracy and service level achievement w/ existing processes
- Solution required investment in updated and modern order fulfillment process
  - Real time WES/WCS … Numina’s Real Time Distribution System (RDS)
  - Integration of RDS with AC Lens’ order management system
  - Implementation of ASRS – Rowa Vmax system of 4 parallel systems
  - Development of software controls and optimization to maximize the asset utilization
  - Build in process checks w/ automation to ensure accurate order processing
    - Weight audit scale system w/ resolution to < 1 oz validation
    - Automatic pack list printing and insertion for pack out w/ barcode verification
    - Automatic shipping label printing w/ barcode verification
  - Conveyance system with reusable totes for peak performance
Overall System
RDS Architecture

Enterprise Information & Business Operations
SAP, Oracle/JDE, Sage, Infor, iSeries, MS Dynamics, Manhattan Assoc., legacy/custom systems and others

Web Dashboards & Reporting

Web Server

Dedicated/Virtual Server

SQL DB

Database Replication

Control Application

Trak Control Engine

RDS Trak Controller System

Intelligent Device Management
Voice Pick, Pick To Light
Barcode Readers, Vision, RFID
ASRS, AGV
Print & Apply Labeling, Manifest, ASN
Components & more

Real Time Controls
Pack Automation
Conveyors
Sorters
PLC

Distributed Ethernet

Intelligent Device Management
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Pack Automation

Conveyors
Sorters
PLC
Results

• Order picking consolidation blended manual and Robotic-ASRS
• Error free order processing w/ weight and label scanning verification
• Avoidance of labor increase
• Record order fulfillment w/ optimized order processing
• On demand order assignment to ensure optimization of ASRS
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