OTM USER CONFERENCE 2021

AUGUST 2-5, 2021

OTM SIG
Oracle OTM User Group

Agenda

1. **Introductions**
2. **Challenge & Goals**
3. **Sustainability Commitment**
4. **DTMS Project**
    a. **Scope**
    b. **Multiple-Phased Implementation**
5. **Results**
    a. **Outcomes**
    b. **Learnings**
6. **Future**

Who is Loadsmart

Loadsmart is a **digital freight technology platform** that adds value to Shippers and Carriers by providing data solutions that automate the transportation of goods.

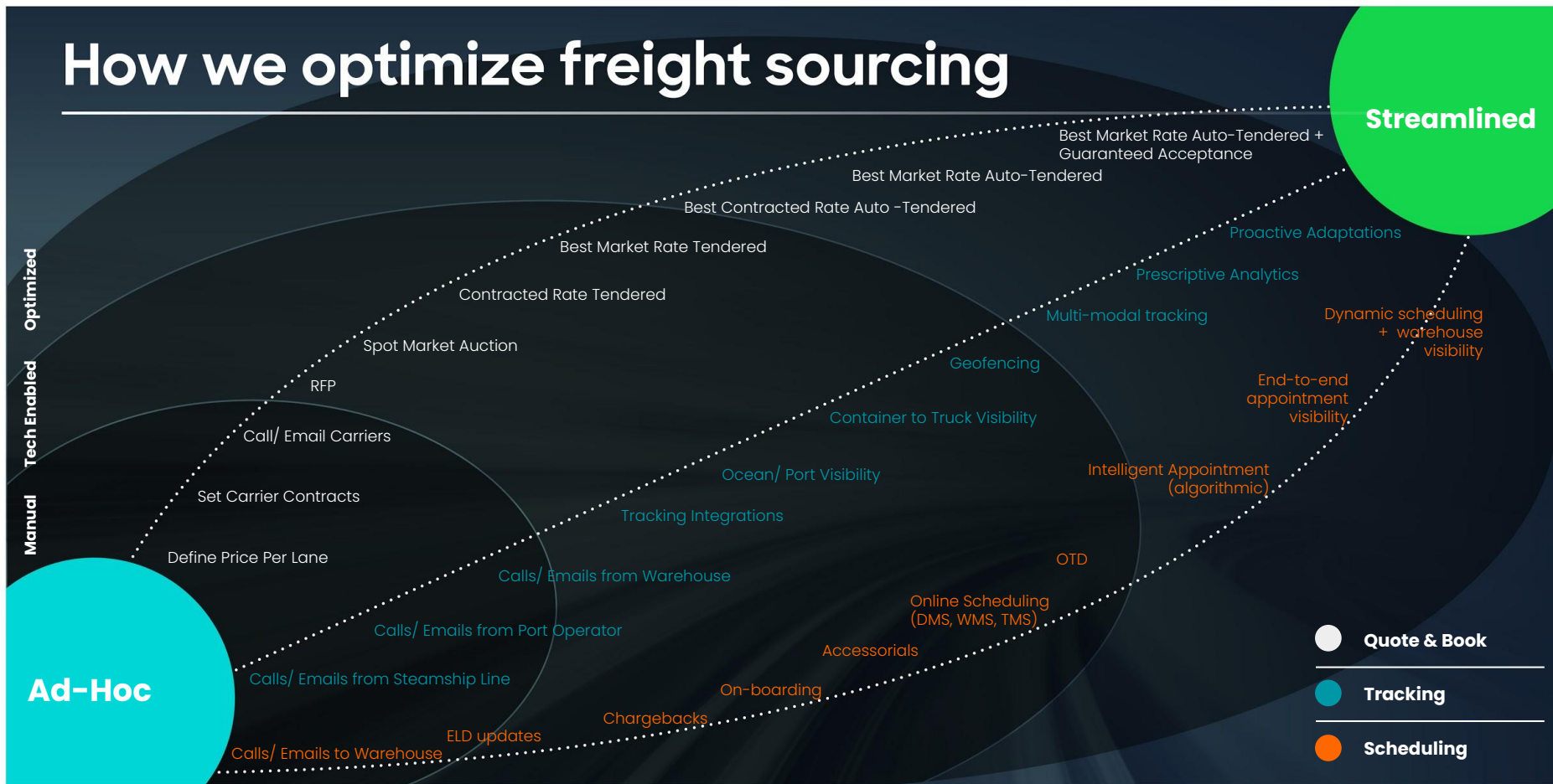**Dynamic pricing**   **Instant Capacity**   **Data Analysis**

Automated Bid Tools   **Dock Scheduling**   **TMS Integration**

Carrier Management

How we optimize freight sourcing

Streamlined

Ad-Hoc

Optimized · Tech Enabled · Manual

Best Market Rate Auto-Tendered + Guaranteed Acceptance

Best Market Rate Auto-Tendered

Best Contracted Rate Auto -Tendered

Best Market Rate Tendered

Contracted Rate Tendered

Spot Market Auction

RFP

Call/ Email Carriers

Set Carrier Contracts

Define Price Per Lane

Proactive Adaptations

Prescriptive Analytics

Multi-modal tracking

Geofencing

Container to Truck Visibility

Ocean/ Port Visibility

Tracking Integrations

Calls/ Emails from Warehouse

Calls/ Emails from Port Operator

Calls/ Emails from Steamship Line

Calls/ Emails to Warehouse

ELD updates

Chargebacks

On-boarding

Accessorials

Online Scheduling (DMS, WMS, TMS)

OTD

Intelligent Appointment (algorithmic)

End-to-end appointment visibility

Dynamic scheduling + warehouse visibility

- ⚪ **Quote & Book**
- 🔵 **Tracking**
- 🟠 **Scheduling**

Who is Starbucks

The World's largest coffee house chain with:

- **4+ billion pounds to move**

- **285 million miles of loaded distance to cover**

- **510,000+ orders to fill**

- **460,000+ shipments to plan**

*Annually

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What was our challenge?

Challenge

- In 2017, 100% of freight management was **outsourced**

- Lacked direct control, end-to-end visibility, and full optimization

Goal

- By 2021, 100% freight management was **insourced**

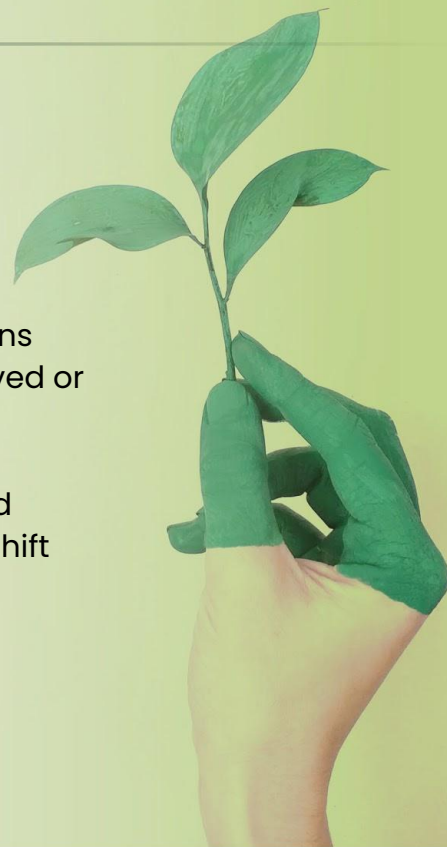- Team formation and technical prowess to support current and future supply chain initiatives

Sustainability Commitment

50%
Reduction by 2030 in:

Carbon emissions in our direct operations and supply chain.

Water withdrawal for direct operations and coffee production will be conserved or replenished.

Waste sent to landfill from stores and manufacturing, driven by a broader shift toward a circular economy.

Sustainability Commitment

50%
Reduction by 2030 in:

Carbon emissions in our direct operations and supply chain.

Made possible by DTMS
Domestic Transportation Management System was a 4-year program to insource all freight.

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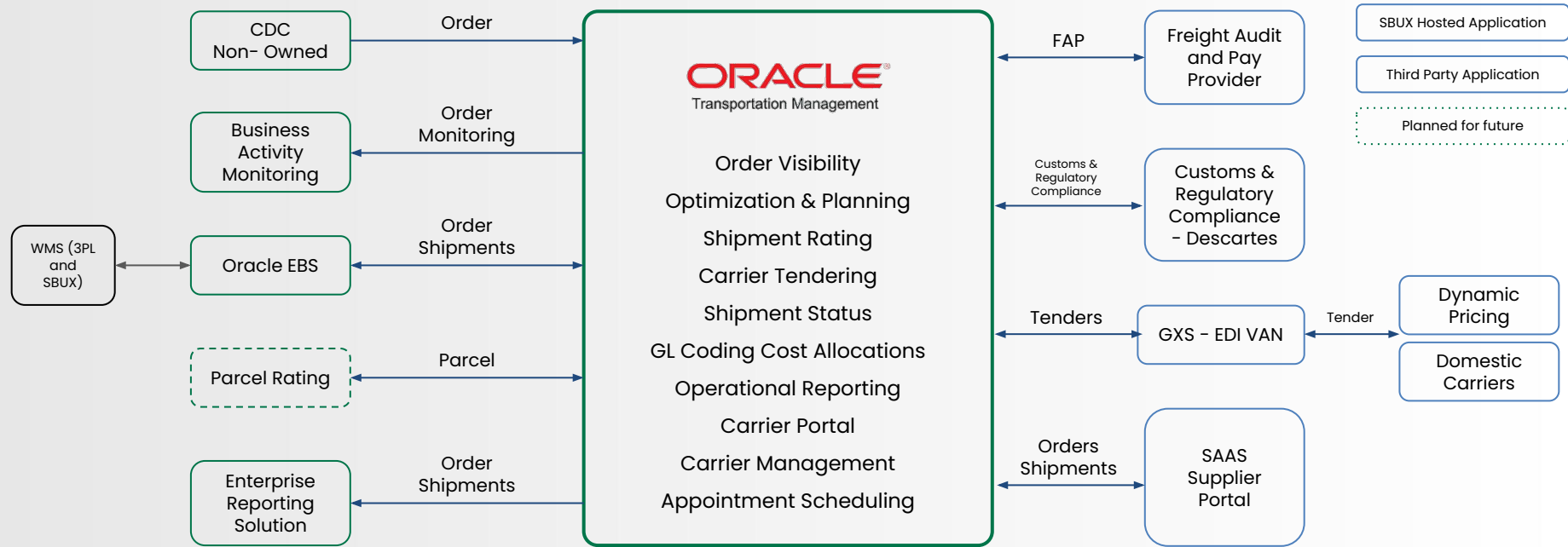
Approach

Organizational buy-in for the full end-state vision, with a phased, risk-managed implementation approach

Build capabilities over time to not sacrifice quality for immediacy

Leverage existing 3PL relationship as testing ground & contingency plan
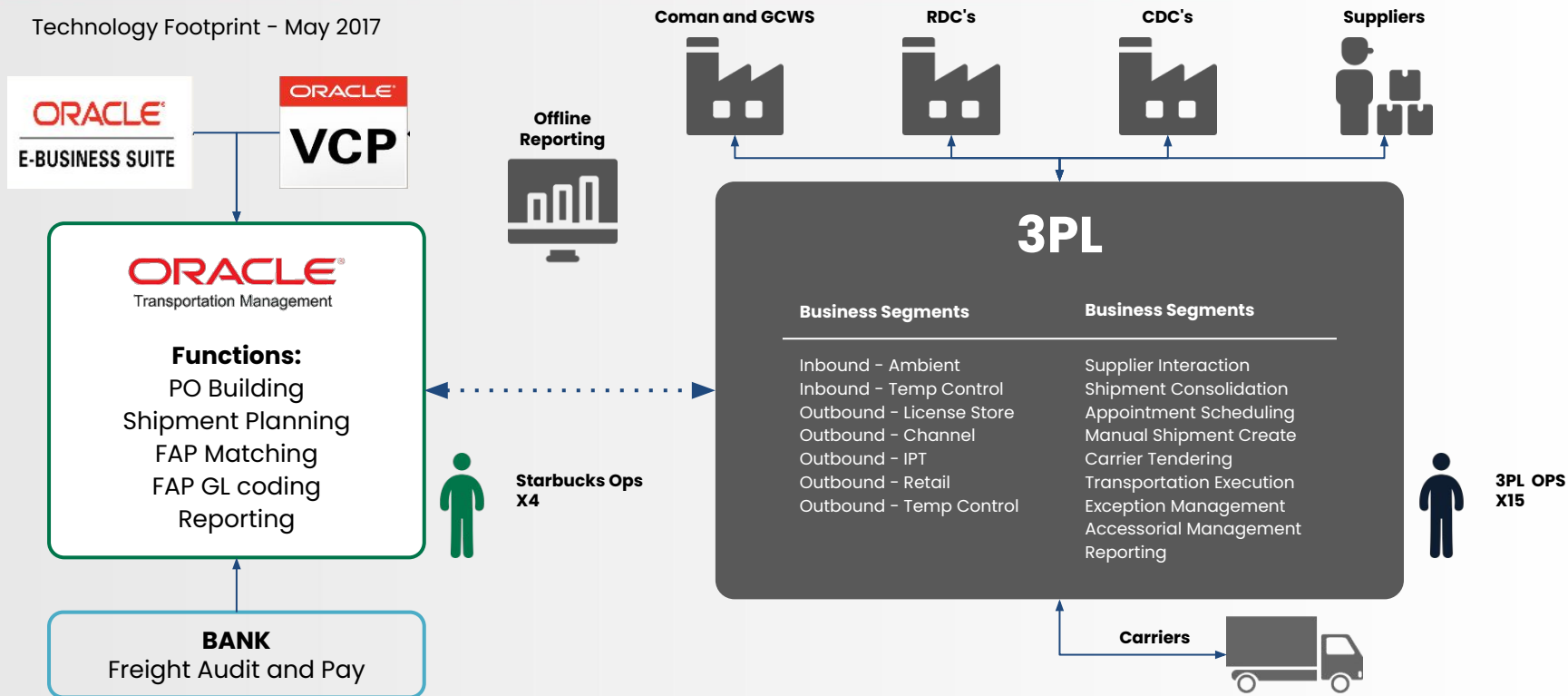
Develop supply chain core competency, specifically transportation subject matter expertise

Vision

CDC Non-Owned → Order → **ORACLE** Transportation Management

Order Monitoring → Business Activity Monitoring

WMS (3PL and SBUX) ↔ Oracle EBS → Order Shipments

Parcel Rating → Parcel

Enterprise Reporting Solution → Order Shipments

Order Visibility
Optimization & Planning
Shipment Rating
Carrier Tendering
Shipment Status
GL Coding Cost Allocations
Operational Reporting
Carrier Portal
Carrier Management
Appointment Scheduling

FAP → Freight Audit and Pay Provider

Customs & Regulatory Compliance → Customs & Regulatory Compliance - Descartes

Tenders → GXS – EDI VAN → Tender → Dynamic Pricing / Domestic Carriers

Orders Shipments → SAAS Supplier Portal

SBUX Hosted Application

Third Party Application

Planned for future

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Before

Technology Footprint - May 2017

Coman and GCWS   **RDC's**   **CDC's**   **Suppliers**

ORACLE
E-BUSINESS SUITE

ORACLE
VCP

Offline Reporting

ORACLE
Transportation Management

Functions:
PO Building
Shipment Planning
FAP Matching
FAP GL coding
Reporting

Starbucks Ops X4

BANK
Freight Audit and Pay

3PL

Business Segments

Inbound – Ambient
Inbound – Temp Control
Outbound – License Store
Outbound – Channel
Outbound – IPT
Outbound – Retail
Outbound – Temp Control

Business Segments

Supplier Interaction
Shipment Consolidation
Appointment Scheduling
Manual Shipment Create
Carrier Tendering
Transportation Execution
Exception Management
Accessorial Management
Reporting

3PL OPS X15

Carriers

Scope

Phase 1

Infrastructure

OTM version update

Hardware upgrade for disaster recovery

OTM as Tier 1 App (availability & application recovery SLAs)

RDC outbound to CPG, Foodservice and LS direct

Infrastructure

Shipments status messages required for carrier payment

Enterprise Data Warehouse

Phase 2

Inventory transfer for RDC's, Roasting Plants, Co-Mans, west coast Green Coffee Warehouses

Store Dev RDC to general contractor or store

Infrastructure

Parcel rating and execution

Enterprise reporting

Dynamic Pricing Integration

Phase 3

Ambient supplier inbound

Temp Control supplier inbound

Inventory transfers for CDC's

Retail outbound

Infrastructure

Custom Shipper Portal

PO bundling enhancements

IPT bundling enhancements

FAP enhancements

OTM/WMS integration

2018   2019   2020   2021

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Phase I

May 2017 - Jan 2019

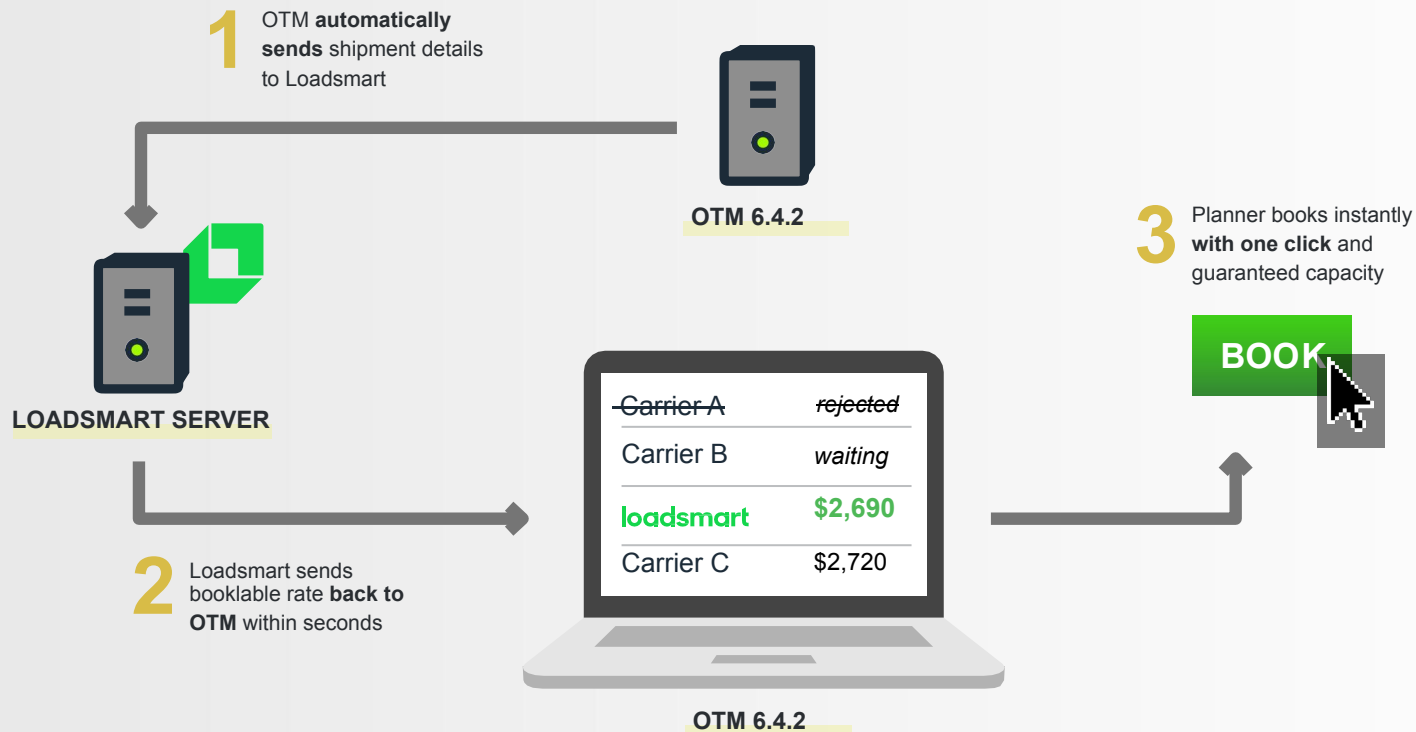| Implementation	Challenge	Impact
Upgrade OTM from 6.3.1 to 6.4.2 **+ (OS and Database)**	- Support unavailable for 6.3.1 - Compatibility issues with upgrades - Delaying would cause double testing & change management	- Ability to execute all transportation activity in a single system - System of record for all domestic moves - Accurate data on actual activity timing & cost
Insource CPG	- Balancing service levels & efficiency - Improve consistency of on-time pickup & delivery - Minimize or add predictability to delivery frequency where possible - Maximize equipment utilization in a constrained market	- Reduction in 3PL charges - Lower Cost Mode Selection 2% - Better Procurement Negotiations 1% - Route Optimization / Multi-Stop 2.5% - Reduction in Carrier Over-Charges 0.25% *opportunity across 6 RDCs over 5 years
Insource Low-Volume Lanes / SPOT	- Lanes had no contracted carriers - Limited benefit to contracting capacity on low volume lanes - High variability on service with constantly shifting capacity providers	- Less overall time required vs RFP's - Freed resources for DTMS - Not incredibly efficient or reliable

Phase II

May 2019 - Nov 2020

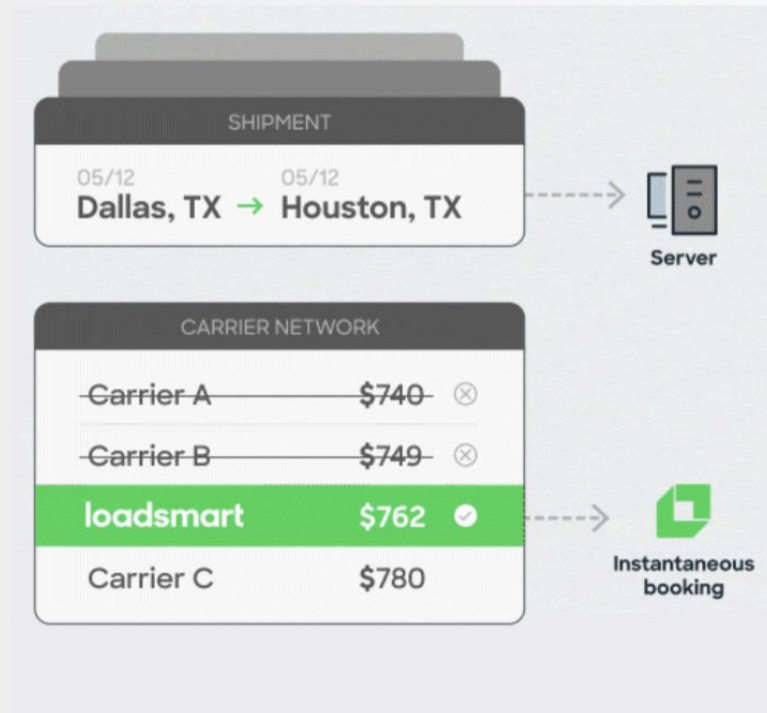| Implementation	Challenge	Impact
Enabled Dynamic Pricing Integration	• Needed to cover low-volume lanes without the hassle RFP's or SPOT • Other rates static & unresponsive to market conditions • Overpayments & delays due to rejections and unreliable carriers	• Instant coverage for low-volume lanes at true-market rate • Less time to cover freight • Savings vs static options
Insource Low - Mid Volume Lanes w/ high spot	• Same challenges as above • Volatility of demand required Operations focus on contracted lanes	• Improved ability to forecast capacity needs • Higher % of tender accepts from contracted carriers
Insource Inventory Transfers	• No end-to-end visibility • Sub-optimal carrier equipment utilization • Volatility in carrier capacity availability • Inconsistent OTP & delivery performance	• Full order-to-delivery visibility, whether contracted or dynamic capacity • Equipment utilization maximized • Added predictability to spend

How it works

Loadsmart Dynamic Pricing TMS Integration

1 OTM **automatically sends** shipment details to Loadsmart

OTM 6.4.2

LOADSMART SERVER

2 Loadsmart sends bookable rate **back to OTM** within seconds

~~Carrier A~~	*rejected*
Carrier B	*waiting*
loadsmart	**$2,690**
Carrier C	$2,720

OTM 6.4.2

3 Planner books instantly **with one click** and guaranteed capacity

BOOK

2.5 TOTAL TIME **seconds**

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How it works

Phase III

Nov 2020 - June 2021

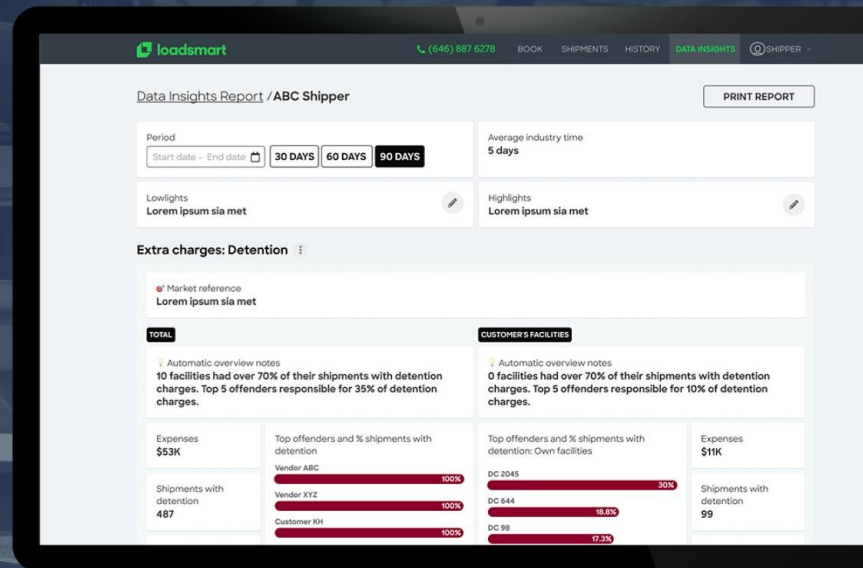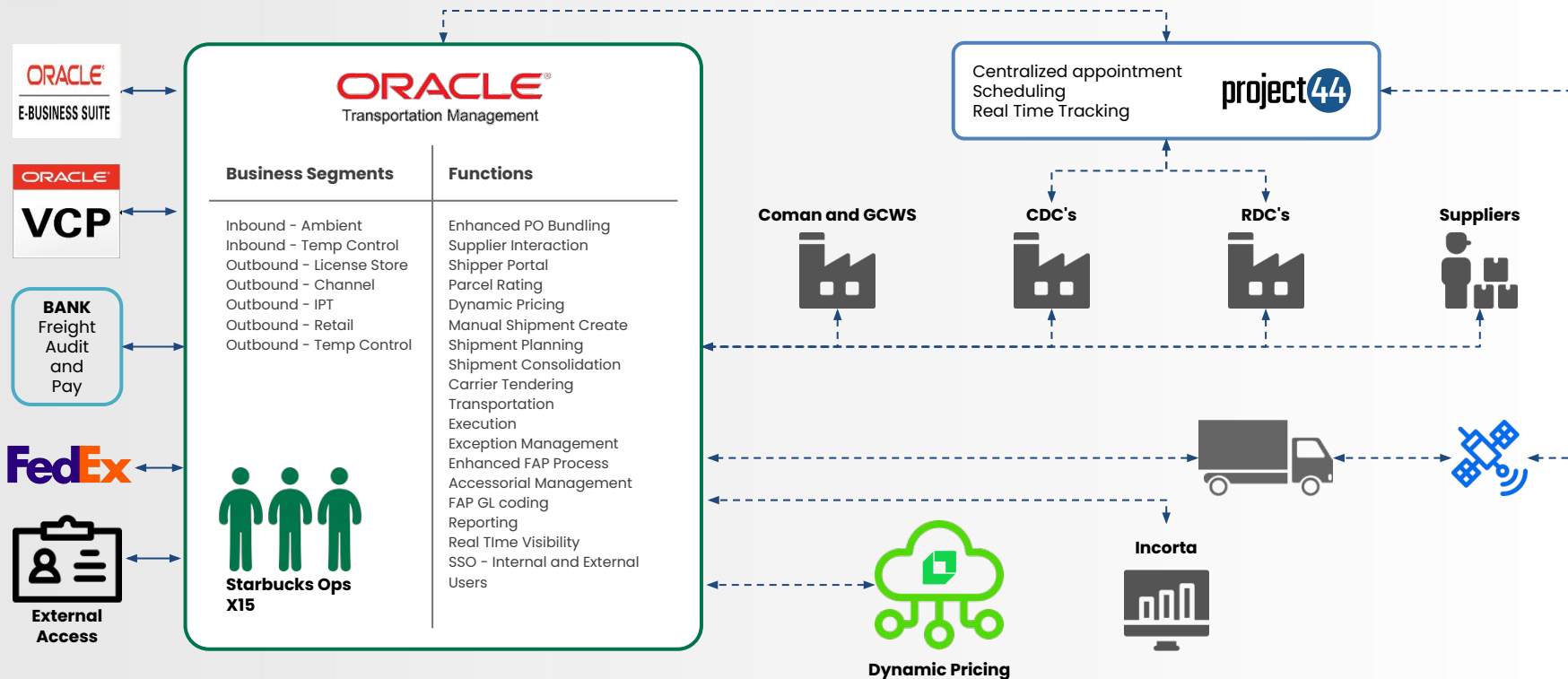| Implementation	Challenge	Impact
Insource Supplier Inbound	• All other rates were static & unresponsive to market conditions • Frequent overpayments & delays due to tender rejections & spot	• Route Optimization / Multi-Stop 0.6%-5.0% • Lower Cost Mode Selection 0.4%-4.0% • Reduction in 3PL charges • Better Procurement Negotiations 0.2%-2.0% • Increased Usage of Preferred Carrier/Mode/Service 0.2%-1.4% • Reduction in Carrier Over-Charges 0.25% *opportunity across 5 RDCs over 5 years
Insource Retail Outbound	• No capability to proactively manage delivery exceptions • Alternate delivery (diversion) management highly manual • Shipment "cut times" were not closely controlled, contributing to downstream delivery failures & inventory outages	• All order milestones are systematic and TMS and WMS are fully integrated • Full end-to-end visibility achieved, enabling proactive exception management • Alternate delivery scenarios fully automated
Dynamic Pricing for All Lanes (Routing Guides)	• Securing capacity during volume spikes as business segments recovered • Adding reliable capacity to the carrier network	• Reduction in Carrier Over-Charges 0.25% • Timely lock-in of capacity on low volume lanes + primary carrier rejections • Prioritizes Operations focus to true exception management vs. capacity go-get • Ability to leverage market pricing if lower than contracted rate(s)

Road to pricing efficiency

5 — Data & Insights +
Real-time Market Data

4 — Contracted + Dynamic Pricing

3 — Dynamic Pricing -All Lanes
(Routing Guide)

2 — Dynamic Pricing - All SPOT

1 — Dynamic Pricing Low-Volume
Non-Contracted Lanes

Data insights & analytics

Uncover ways to **increase supply chain efficiency**

- **Lead-time analysis**
- **Network recommendations**
- **Industry comparisons**

After

ORACLE E-BUSINESS SUITE

ORACLE VCP

BANK Freight Audit and Pay

FedEx

External Access

ORACLE Transportation Management

Business Segments	Functions
Inbound – Ambient	Enhanced PO Bundling
Inbound – Temp Control	Supplier Interaction
Outbound – License Store	Shipper Portal
Outbound – Channel	Parcel Rating
Outbound – IPT	Dynamic Pricing
Outbound – Retail	Manual Shipment Create
Outbound – Temp Control	Shipment Planning
	Shipment Consolidation
	Carrier Tendering
	Transportation Execution
	Exception Management
	Enhanced FAP Process
	Accessorial Management
	FAP GL coding
	Reporting
	Real TIme Visibility
	SSO – Internal and External Users

Starbucks Ops X15

Centralized appointment Scheduling Real Time Tracking

project44

Coman and GCWS

CDC's

RDC's

Suppliers

Dynamic Pricing

Incorta

Key benefits for insourcing

- **Best in class TMS** to manage and optimize transportation

- Positions Value Chain Execution across supply chain systems

- **Reduces integration complexity** and simplifies reporting

- Operational intelligence and data ownership across supply chain

- Heavy influence on supply chain roadmap and future investments

- Lays groundwork for achieving **sustainability** initiatives
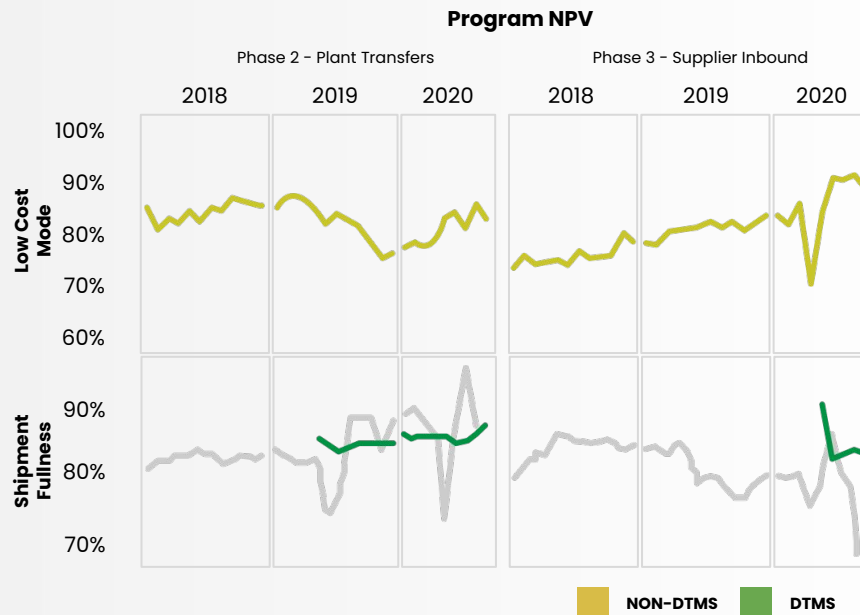
cost
timing
sourcing
equity
quality

Results

Outcomes

5-year savings:

- + 20k CO$_2$ metric tons
- $60M+ (projected)

Learnings

- Transportation is a core competency & has a "seat at the table" for supply chain strategy

- Dynamic capacity solutions are critical for competitive advantage

- An integrated supply chain ensures end-to-end visibility for all decision-making

Program NPV

Phase 2 - Plant Transfers | Phase 3 - Supplier Inbound

NON-DTMS · DTMS

What's next?

V- Vendor/SOW

DTMS - Tech Go-live

Retail Roll Out Starts

RTV – CAM Phase I

RTV – CAM Phase II

RTV – International

RTV – CAM Phase III

OTM - Cloud Evaluation

Mode optimization with dynamic market rates

Oct '20 | Jan'21 | Feb'21 | Mar'21 | Apr'21 | May'21 | Jun'21 | Jul'21 | Sep'21 | Oct'21 | Jan'22 | Apr'22 | Jul'22 | Oct'22 | Jan'23 | Apr'23

CDC – IPT

Retail Roll Out Ends

OTM - Cloud Program Starts

E2E Green Coffee

Blue Ocean Order Creation

Predictive analytics with market data

DTMS - Enhancements

Blue Ocean - Track & Trace, Continuous Improvement

QUESTIONS?

THANK YOU

Learn More:
loadsmart.com/integrations/oracle/

shboyd@starbucks.com

rsrivast@starbucks.com   tim.evans@loadsmart.com

STARBUCKS™   loadsmart

APPENDIX

10 Steps to Setup the Loadsmart Integration in OTM

1. Create User for Integration

Dashboard → Configuration and administration → User management → User Manager → New User

- Assign the user a username and password → Loadsmart will need them to send integration responses

- On access control list add Integration

2. Create External System for Tenders

Dashboard → Business Process Automation → Communication Management → External Systems → New External System

- Give it any External System ID → . e.g. LSEXTERNALSYSTEM

- Add the username and password that was provided by Loadsmart

- On HTTP/HTTPS - URL: Enter the URL for the tender Service provided by Loadsmart

10 Steps to Setup the Loadsmart Integration in OTM

3. **Create Service Provider**

Dashboard → Configuration and administration → User management → User Manager → New User

- Provide a Service Provider ID

- Select Mode Profile as TL

- Select the types of tender you wish to send Loadsmart

- Tender types supported by Loadsmart:

- Spot Bid

- Broadcast Tender

- Secure resources

- Select the country code

- Click on the communication and remarks tab

- Communication Method: HTTP POST

- External System ID: Select the External System created above

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10 Steps to Setup the Loadsmart Integration in OTM

4. Create Document

Dashboard → Business Process Automation → Document Manager → New Document → Create new document

- Leave the first form empty and click on Document Detail

- On Storage select URL and paste the URL provided by Loadsmart

5. Create Web Service

Dashboard → Business Process Automation → Communication Management → Web Services → New Web Service

- Select document created on the previous step
- Go to service details
- Give it a Service ID → . e.g. LSSERVICE
- Edit web service endpoint - insert username and password and save.
- (These are the credentials that are provided in ERE requests, in base64)

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10 Steps to Setup the Loadsmart Integration in OTM

6. Create External System for ERE

Dashboard → Business Process Automation → Communication Management → External Systems → New External System

- Give it a Service ID → . e.g. LOAD_SMART
- Add the username and password provided by Loadsmart
- On Web Service → Web Service add service created in last step
- On Web Service → Service Operation select CostShipment
- On Web Service → Service Endpoint select ExternalRatingPort

7. Create an external rating Engine Fieldset:

Dashboard → Contract and Rate Management → Power Data → General → External Rating Engine Fieldset → Create new

- Connection type: Webservice
- Implementing Java Class: Field will be automatically filled
- Valid external Rating Engine ID: GENERIC
- External System ID: Previously created External System
- Rate basis items per specific company requirements

10 Steps to Setup the Loadsmart Integration in OTM

No-cost integration

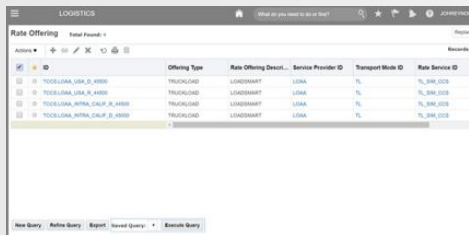### 8. Create Rate Service

Dashboard → Contract and Rate Management → Contract Management → Rate Service → New Rate Service

- Give it a Rate Service ID → . e.g. LSRATESERVICE

- On Rate Service Type select TIMEDEFINITESERVICE

9. Create Rate Offering

Dashboard → Contract and Rate Management → Contract Management → Rate Offering → New Rate Offering

- Rate Service ID: Previously created rate service
- Offering type: TL
- Service Provider ID: Previously created service provider
- Transport Mode: TL

- Perspective: ALL
- Currency: USD
- Version: Create new Rate version
- Select effective and expiration date
- Exchange rate Id: Default
- Active checkbox: Selected

Getting "Hands On" With OTM + Loadsmart

No-cost integration

10. **Create Rate Record**

Dashboard → Contract and Rate Management → Contract Management → Rate Record → New Rate Record → Select Created Rate Offering

- Lane Info Tab

- Source Geo Hierarchy: Location

- Destination GEO Hierarchy: Location

- Attributes Tab

- Source Geo Location Id: Id of the source Location

- Destination Geo Location Id: Id of the destination Location

- Rate Costs Tab

- Add a Cost

- Cost Type: External

- External Rating Engine Id: Generic

- External Engine Fieldset Id: Previously created ERE Fieldset

- Options: Normal cost ratio button selected

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