



pitss

# Introducing PITSS

*Digital Transformation for Legacy Oracle Systems*

# Agenda Slide

## What we're here to talk about

1. Who We Are
2. Past Work for AAR
  - *AARive*
  - *Quote Accelerator*
  - *CLEAAR*
  - *IMOPS*
  - *PAARTS*
3. Recent Discussions
4. Legacy Opportunities



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## Who We Are

500 Clients  
in 40+ countries

80 Team Members  
and growing



Over 18 Years  
as a leader in digital transformation

5 Locations  
across 3 continents

# Locations



United States

Germany

United Kingdom

Mexico

Brazil



# What We Do



## Oracle Forms

Collective experience covers everything from Forms 2.0 right up to 12c. Expert in all Forms-related technologies.



## Service-Oriented Architecture

Our earliest modernizations up to today target SOA, leveraging business logic over web services and OSS.



## HTML5, Java, and .NET

Successful modernization to a variety of application frameworks, including ADF, Spring, ASP.NET, Angular, jQuery UI, and more.



## Enterprise Architecture

We enable customers to pursue cloud deployments, fast-moving modern development practices, vendor unlocking and more with our architectural consulting practice.



## Mobile Development

Modernizing our industry clients with needs ranging from hand-held WinCE scanners all the way up to iPads and Android devices.



# Our Solutions



## Application Modernization

Assessment, Strategy and Roadmap Planning, Refactoring and Reengineering, Re-Platforming, Re-Architecting, and Digital Transformation



## Application Development

Web Development, Mobility, Cloud, UI/UX Design, Enterprise Architecture, Integration, Business Intelligence



## Infrastructure

Database and Middleware, Operations, Network Management, Security, and Managed Services



## Technology and Platform

Oracle Forms and Reports, Oracle ERP and EBS, Pivotal Cloud Foundry, Salesforce, Amazon AWS, Microsoft Azure, and Open Source



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## Past Work for AAR



# Prior Work

## PITSS's Work With AAR

### AARive

- Customer portal for pool / MBK programs
- Officially started in November 2016
- Successfully in production
  - New customers joining each month
  - New program requests issued every day



# Prior Work

## PITSS's Work With AAR

### Quote Accelerator

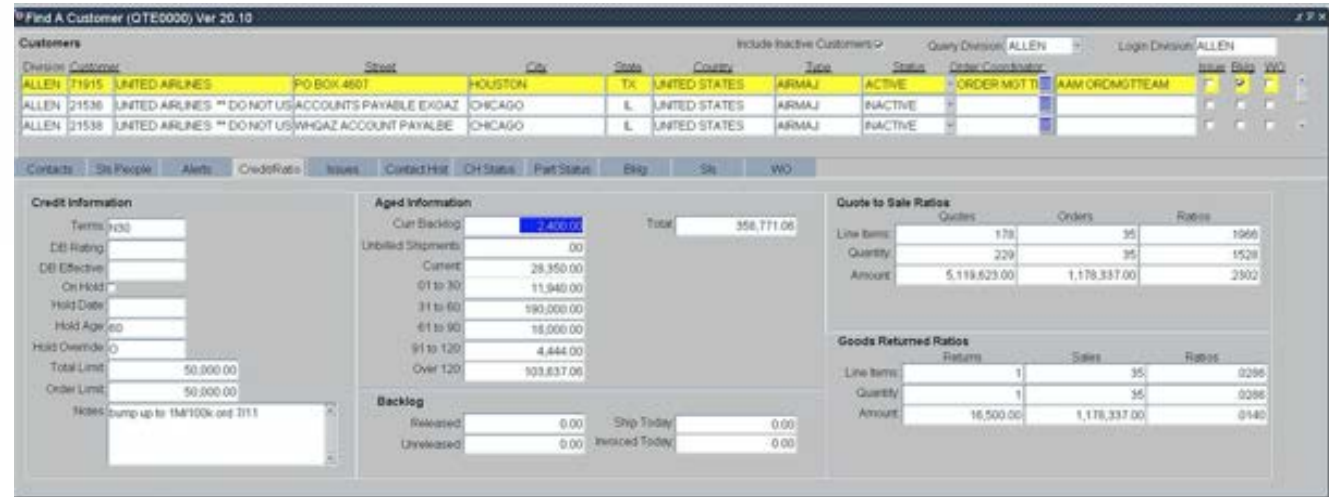
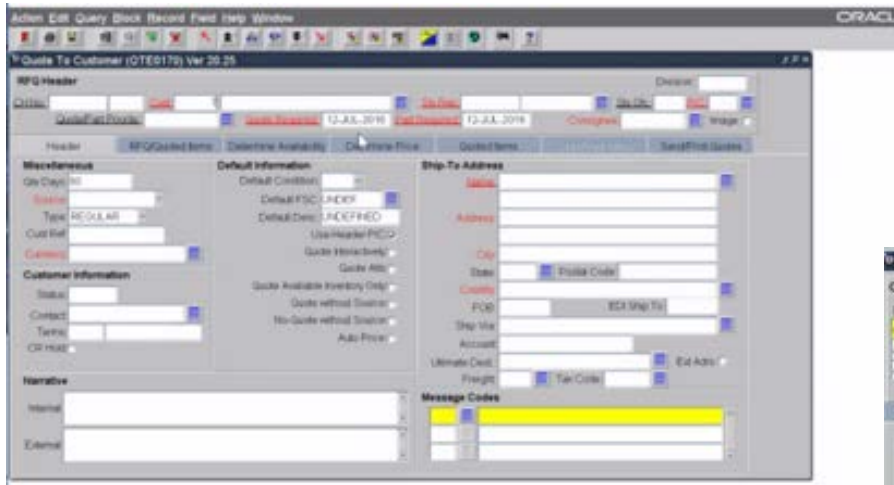
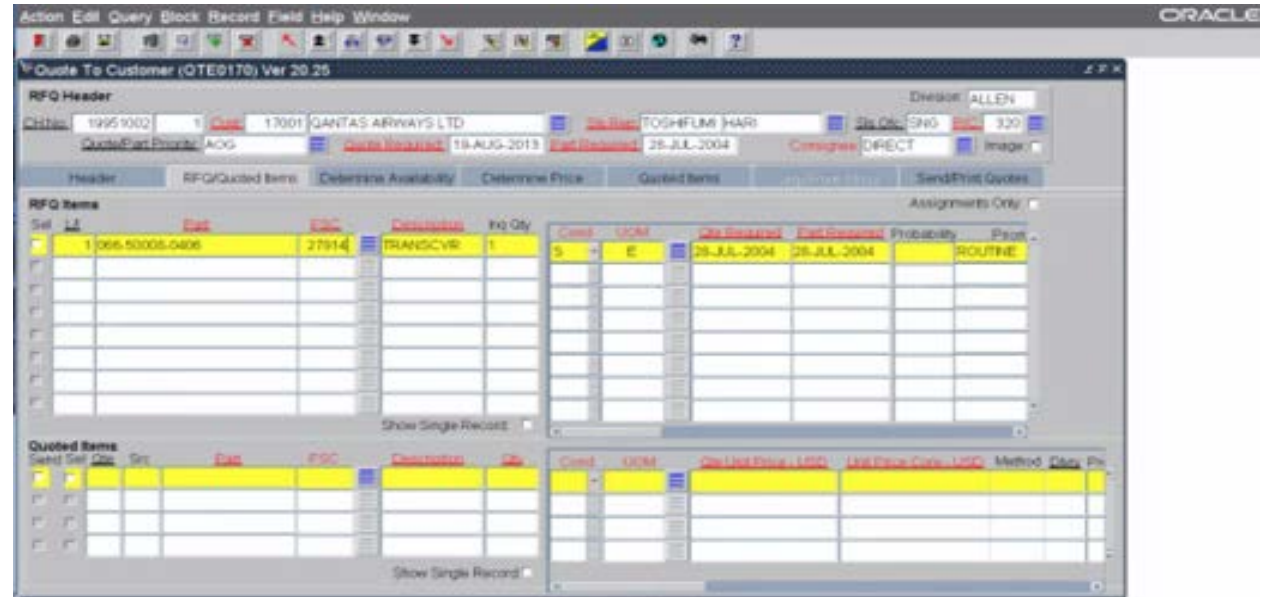
- AAR employee-facing tool for rapid quote creation
- Officially started in August 2016
- PITSS originally involved for data services, IMOPS expertise
- Today, PITSS providing UI/UX development and dev ops support as well



# Prior Work

## PITSS's Work With AAR

### IMOPS-Based Quoting, Before

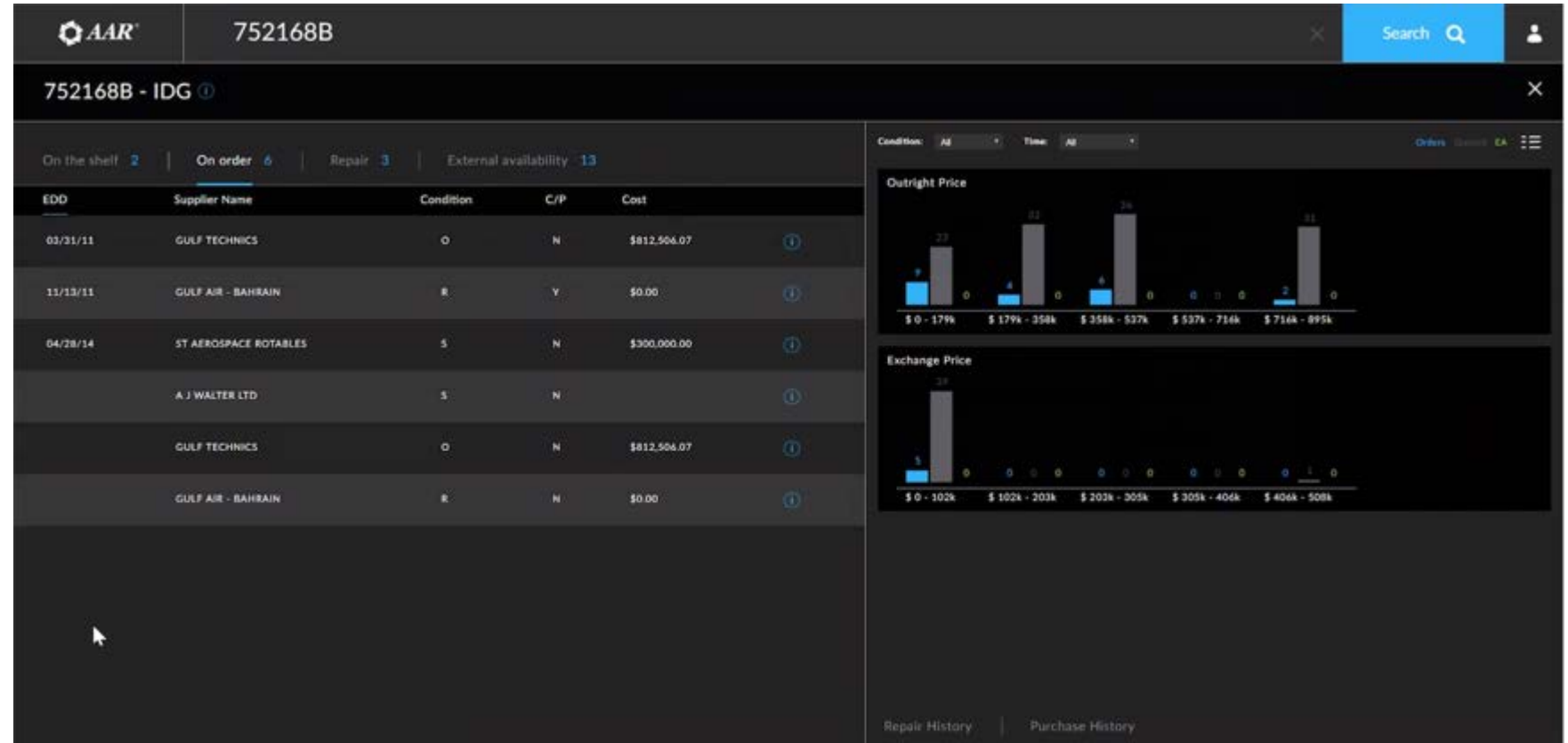


# Prior Work

## PITSS's Work With AAR

### QA, After

- AngularJS UI
- Modern REST ADFBC Web Services
- Cloud-enabled API platform layer



# Prior Work

## PITSS's Work With AAR

### IMOPS

- 80% Automated Version Upgrade
  - Improved maintenance and long-term support
- Source Code Knowledge Transfer
  - Quote Creation
  - Order Creation
  - Order Management
- Use Case Analysis and Data Collection
  - Enables data-driven strategy for modernizing this legacy system





# Prior Work

## PITSS's Work With AAR

### CLEAAR

- Component Loan and Exchange portal
  - Exchange Front-Office Process: Rapid Order Response
  - Exchange Back-Office Process: Fee Monitoring and Component Repair
- Managed by AAR IT
  - Project timeline difficulties due to staffing
  - Joint project management approach with different styles
- Missing: Order Management Component
  - Expedited order management features were removed
  - Exchange process improvement needs did not translate to more general improvements due to budget



# Prior Work

## PITSS's Work With AAR

### PAARTS

- Replacement eCommerce platform
- Debuted at MRO 2017
- Involves multiple parties: PITSS, Wire Stone/UV, AAR DS, AAR IT
- Project Subdivision, Architecture Change
  - Technical scope changes, discovery occurring mid-project
  - Data governance, management topics handled indirectly instead of head-on
- Project Management Strategy Change
  - Feature-driven vs. schedule-driven release management



# Prior Work

## PITSS's Work With AAR

### TAV-P

- Landing gear program
- Still in early stages
- PITSS Implementing Data and UX Solution with AAR IT support
- Modeled largely on successful AARive experience





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## Recent Discussions

# Recent Discussions

## DOCS Documentation Engine

### Existing Challenge

- Tremendous need in the business around paperwork
- Existing solution has significant performance issues; adds hours to every day for key sales reps

### Proposed Solution

- Secure, intuitive file management
- Rapid retrieval, simple sharing
- Instant image preview
- Intelligent document tagging and OCR
- [Preview here](#)

The screenshot displays the DOCS Documentation Engine interface for product 755017B. The top navigation bar includes the AAR logo and the product ID 755017B. Below the navigation, the product name '755017B - FSC: ALL - IDG' is shown. The interface is divided into several sections:

- Inventory Table:** A table with columns for Tag #, Serial #, CND, LOC, WHC, QTY, and Cost. It lists three items with their respective serial numbers and costs.
- Document Viewer:** A large area on the right showing a preview of a document, likely a certificate or invoice, with a search bar and navigation controls.
- Document Management:** A section at the bottom right titled 'All Documents' and 'Packet(s)', showing a list of document types like 'Action Memo/Reject', 'B2B/LLP Trace', 'Concessions', 'Default', 'Inbound Order', and 'Inbound Shipment'.

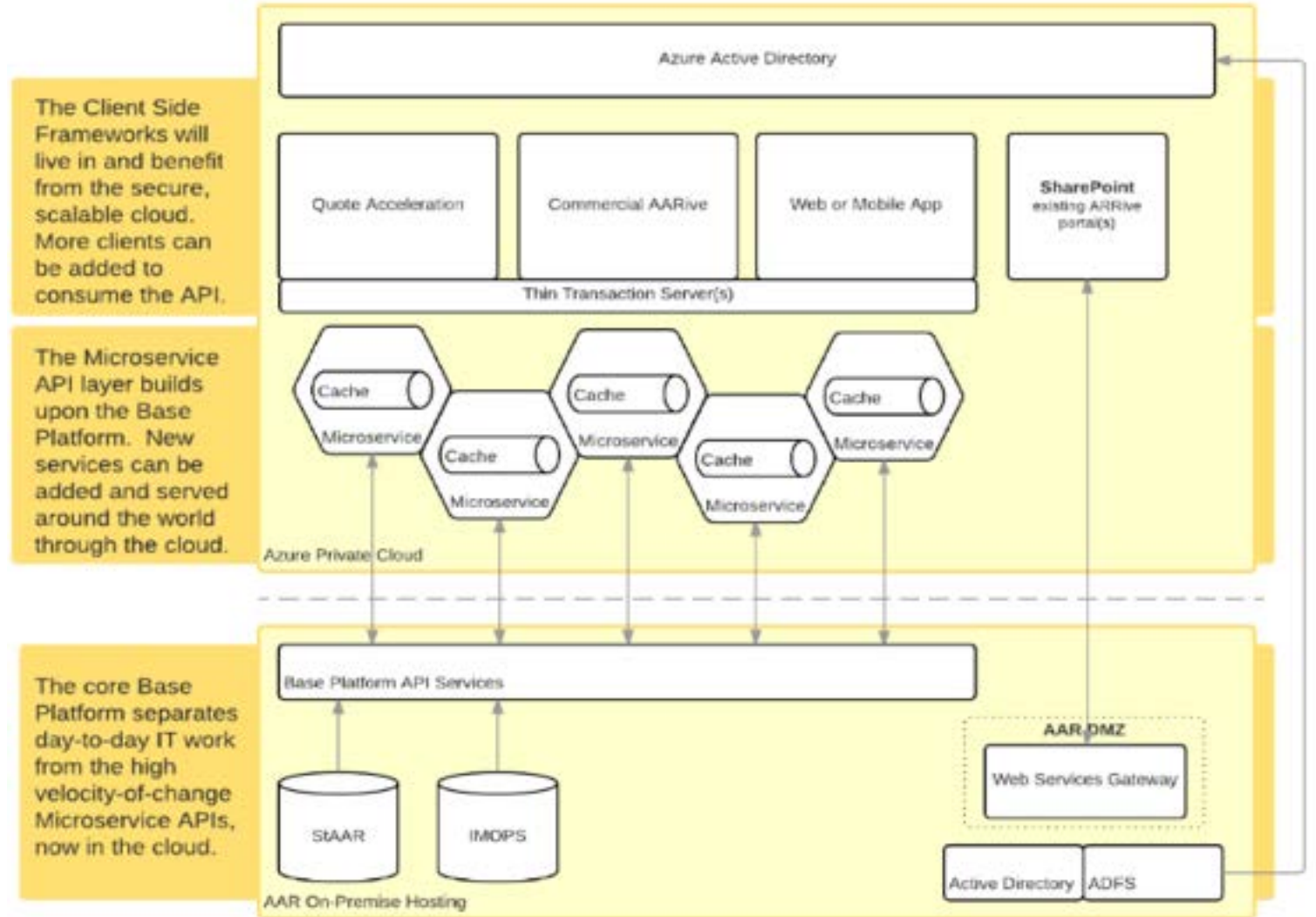


# Recent Discussions

## Innovation Enablement Architecture

We should strive to bring system-wide data from AAR into one cohesive digital platform.

This means **preserving** our systems of record, **replicating** key data to high-availability secure services, and **rapidly releasing** improved tools and processes for new efficiency and revenue opportunities.



# Recent Discussions

## Caching API Layer – Accelerate Performance, Reduce IMOPS Burden

### Read-Only APIs

- Reduce the query load on IMOPS
- Exposes default Elasticsearch query APIs, reducing the work in custom development
- Scalable to serve wide variety of use cases with minimal change in tech footprint

### System Analytics

- Monitor uptime and health of both on-premise AAR systems and cloud-based applications
- Designed to integrate with cloud-based infrastructure health checks and management

### Proof of Concept



# Recent Discussions

## The ELK Stack for Cached Application Data and Analytics

### Elasticsearch

- Horizontally scalable database
- Stores structured or unstructured data
- Freetext search of billions of records in seconds

### Logstash

- Smart transactional monitoring
- Loads log files and deltas into Elasticsearch
- Handles high number of high volume, varied data sources (“Beats”)

### Kibana

- Light configuration-driven and WYSIWYG dashboard and reporting console
- GUI to monitor Elasticsearch data in real time





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## Legacy Opportunities

# Recent Discussions

## IMOPS Modernization and Knowledge Transfer

### Candidate for Digital Transformation

- Identify essential system functions
- Analyze user interactions with system
- Plan roadmap for itemized process improvement in same or new technologies

### Knowledge Transfer

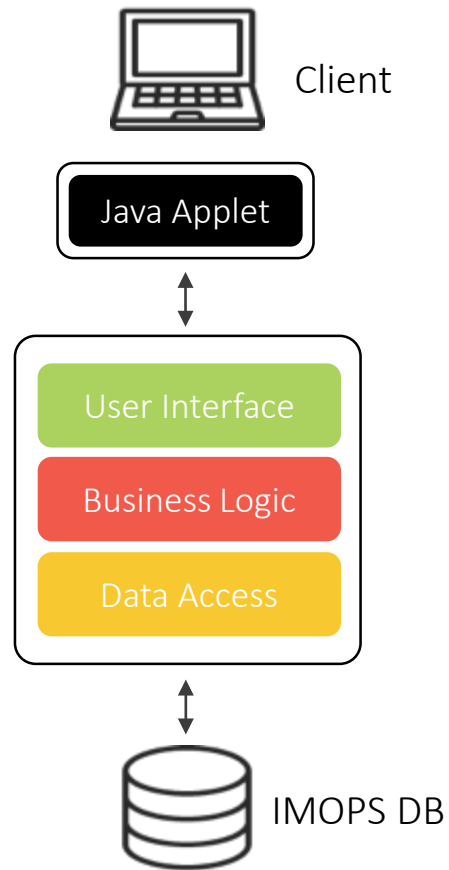
- Known staffing challenges within IT
- Critical system knowledge resides with a small subset of team
- Said team occupied primarily with maintenance work
- Risks of putting off knowledge transfer grow day by day

The screenshot displays a software interface for customer management. At the top, it shows a search bar with the text "Find A Customer (QTE0000) Ver 20.10". Below this is a table of customer records with columns for Division, Customer, Street, City, State, Country, Type, Status, Order Coordinator, Issue, and WO. The first row is highlighted in yellow and shows customer ALLEN (71915) with address PO BOX 4607, HOUSTON, TX, UNITED STATES, and status ACTIVE. Below the table are several data panels: "Credit Information" with fields for Terms, DB Rating, DB Effective, On Hold, Hold Date, Hold Age, Hold Override, Total Limit, and Order Limit; "Aged Information" showing a Current Backlog of 7,400.00 and a Total of 358,771.00, along with a breakdown of aged amounts by date range; "Quote to Sale Ratios" comparing Quotes and Orders across Line Items, Quantity, and Amount; and "Goods Returned Ratios" comparing Returns and Sales across the same metrics. A "Backlog" section at the bottom shows Released and Unreleased amounts for Ship Today and Invoiced Today.



# Legacy Opportunities

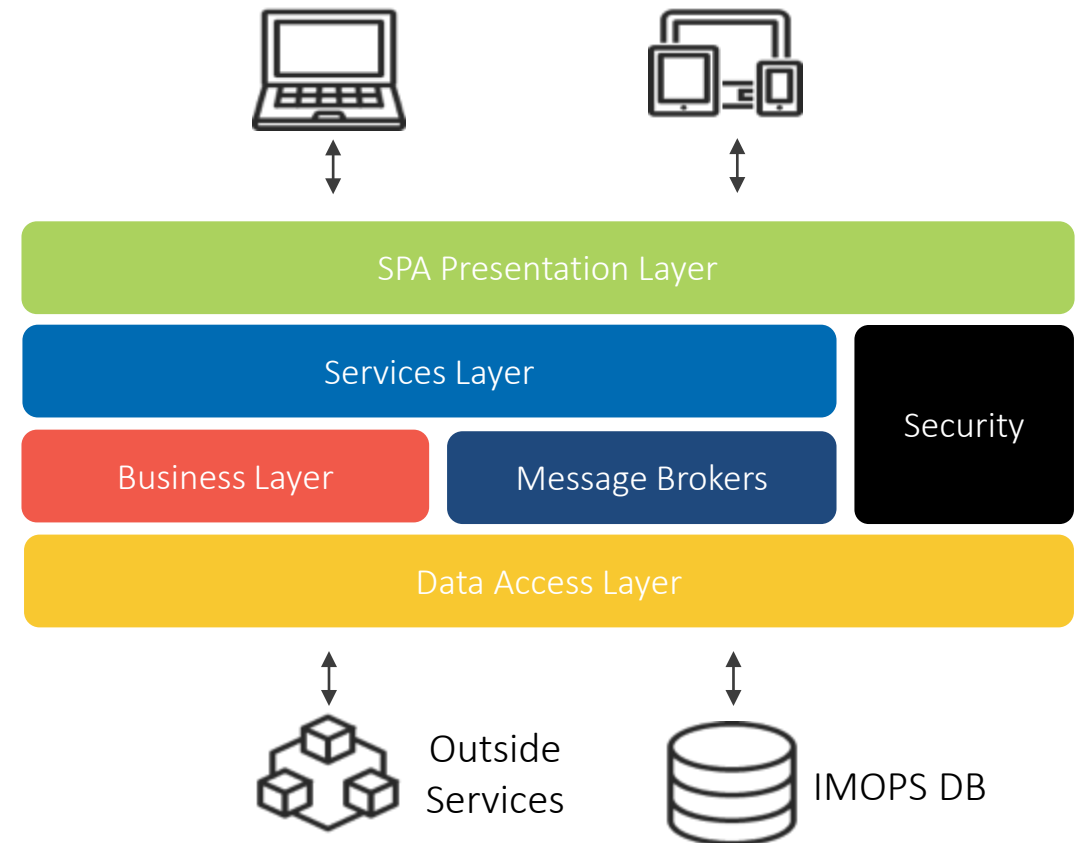
## IMOPS Application Architecture



### PITSS Transformation

- Use Case Analysis
- Portfolio Assessment
- PITSS.CON Software
- Full-Stack Team

## Transformed SPA Application



# PITSS.CON Software

## Repository



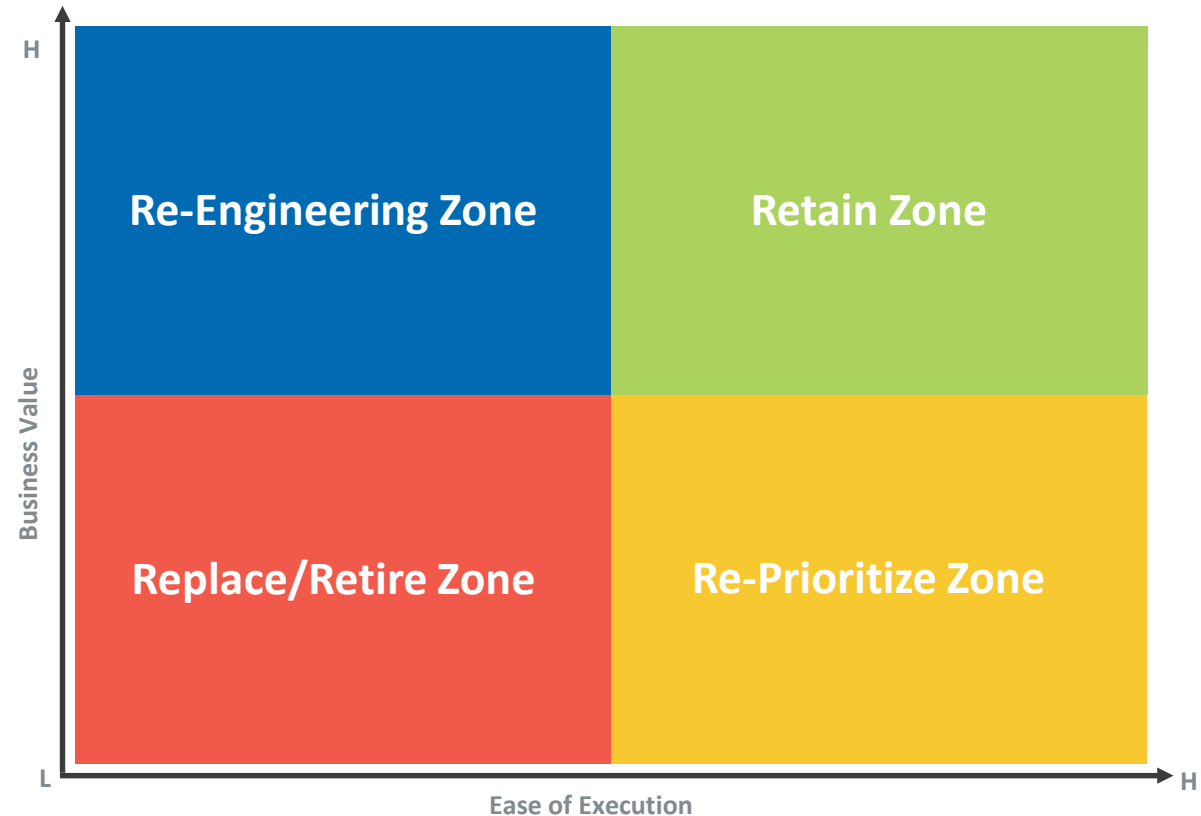
# Zones of the Prioritization Matrix

**Re-Engineer:** High business value but low non-functional or operational performance. Suited for re-architecting, re-platforming or integration with emerging technology solutions (e.g. mobile and social computing).

**Retain:** Applications which meet both the Business and IT criteria (may be subject to different opportunity, e.g. re-prioritize).

**Re-Prioritize:** Applications with higher than desired maintenance or operations costs - reset service levels (e.g. criticality or fault severity levels, maintenance or enhancement request priority) aligned with business value.

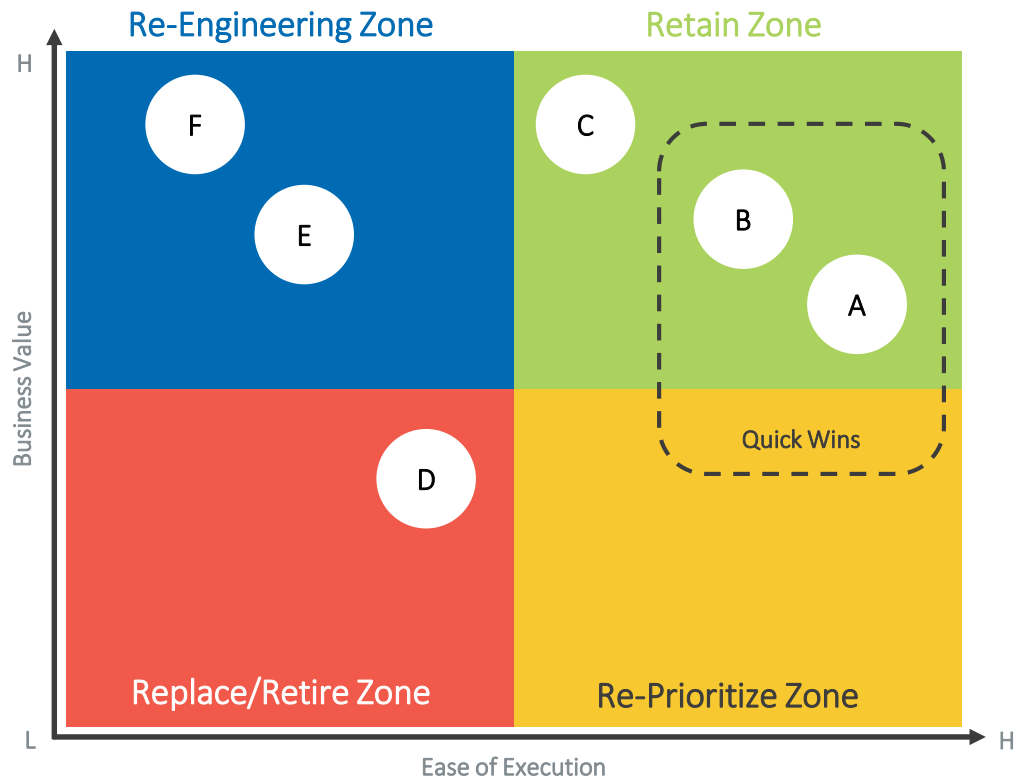
**Replace/Retire:** Applications that have lost significant business value, features, or technical quality. Move any remaining useful features, rules and data to another platform with higher functional and/or technical quality.



# Use Case Analysis

## Prioritization Matrix

Select High Impact initiatives to jointly drive Business / Technical Value



Category	Use-Case	Description
Business Process 1	A	Remove all unused objects and optimize current application design
Business Process 2	B	Remove all unused objects and optimize current application design
Business Process 3	F	Refactor business logic into modern web services to be shared with new UI
Business Process 4	C	Optimize Business Logic by removing redundancies and create new UI/UX
Business Process 5	D	Prioritize key business rules and refactor to a modern web service
Business Process 6	E	Refactor business logic into modern web services to be shared with new UI

# Our Application Modernization Solutions

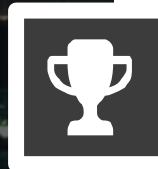
We offer a variety of services and solutions to modernize your legacy Oracle applications



Modernization Workshop



Legacy Modernization Assessment



MVP / Pilot



Full Modernization Implementation





THANK  
YOU

Contact PITSS  
for more  
information

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[us.info@pitss.com](mailto:us.info@pitss.com)  
(248) 749-0935

# PITSS Success Story

## Legacy Application Modernization

### DTE Energy

- Involved in the development and management of energy-related businesses and services worldwide
- With PITSS, DTE Energy upgraded their train scheduling system, known as Automated Rail Receipts (ARR) application, from Oracle Forms 6i to 11g.
- PITSS designed a user-interface that integrates seamlessly with the existing DTE Energy Oracle Forms application running on Fusion Middleware 11g.
- By enabling end-users to utilize state-of-the-art web functionality, like drag and drop and mobile device accessibility, DTE Energy significantly increased productivity for their existing business processes.

**DTE Energy®**



# Success Story

## UI/UX Before

The screenshot shows a 'Unit Train Set Up Form' with the following data and sections:

- Deco #:** WE
- Ship Date:** 07/12/2016 13:00
- UT RR# (OC):** CSCMSUW009
- UT RR# (DC):** WE
- Trip Type:** Round Trip
- Eqp Owner:** Private Car
- Car Type:** 120 AL
- #Car Rel Pit:** 123
- Changed By:** Nick A Reijo
- Route Info:**
  - Customer:** WE-ENERGIES
  - Destination:** SUPERIOR
  - Mine Origin:** SPRING CREEK
  - Load Out Name:**
  - Fuel Type:** LW94
  - Carrier:** BN-BN
  - Interchange:** SUPERIOR
  - Scale:** Mine
  - Supplier/Broker:** CLOUD PEAK ENI
  - Waybill:** 708508
  - Changed By:** System Gen
  - Coal Owner:** CUSTOMER STOCK
- Coal Contract Info:**
  - FPO#:** TENTATIVE FIELDS
  - FPO Basis #:**
- Rail Contract Info:**
  - BN Origin Rail Contract #:** TENTATIVE FIELDS
  - BN Delivery Rail Contract #:** TENTATIVE FIELDS
- Cycle Time Info:**
  - Loading started at:** 07/12/2016 10:13
  - Loading ended at:** 07/12/2016 13:00
  - Unloading started at:**
  - Unloading ended at:**
- Est. Date of Arrival:** 07/17/2016 07:00
- Actual Arrival:**
- Train Released:**
- Crew Arrival:**
- Train Departed:**
- Over Ride:**
- Refresh Dates:**

**Surcharges:** Recalc Surchgs, OC Surchgs: TENTATIVE, DC Surchgs: TENTATIVE

**Weights & Count:** Coal Wt. Act: 14881.825, Coal Wt. Est: 14836.54, Cars loaded @ Mine: 123

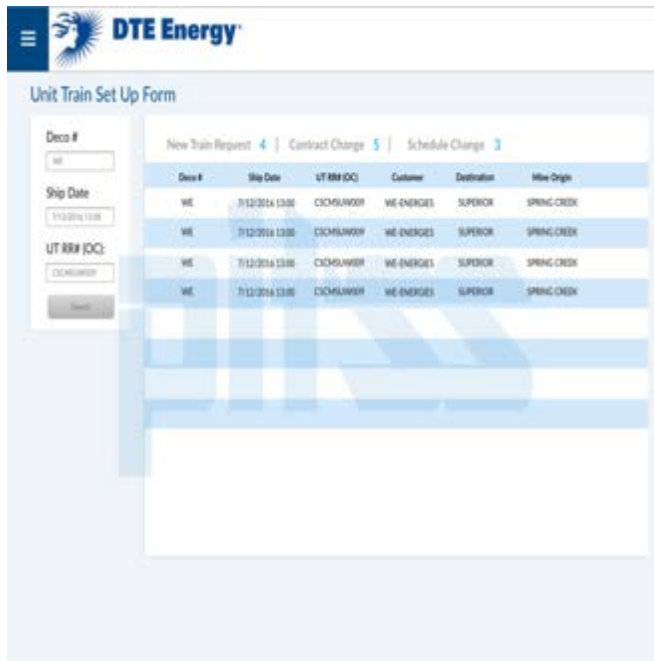
**SAP Transactions:** STO Number: F500028988, PO Number: F400023229

**Buttons:** Assign Pile, Gain Share Info, Delete Train, Revision Info, Train Pile Assignment, Quality Input, Delays

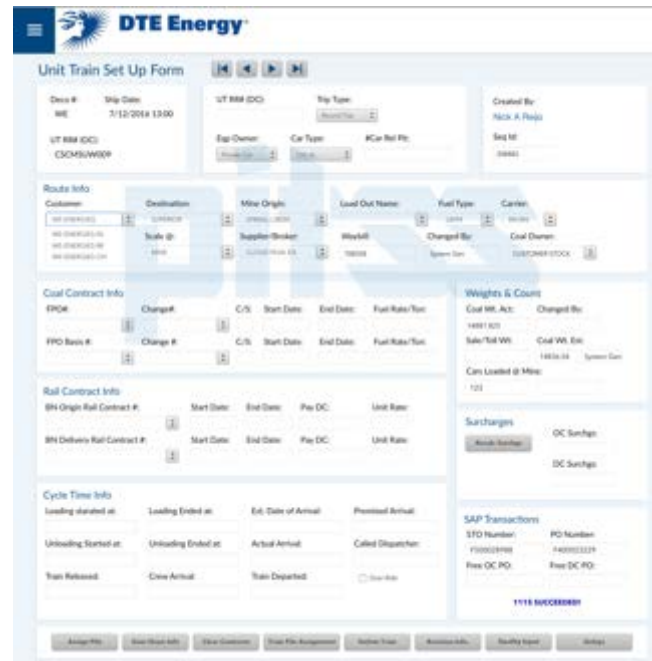
**Status:** 1115 SUCCEEDED!

# Success Story

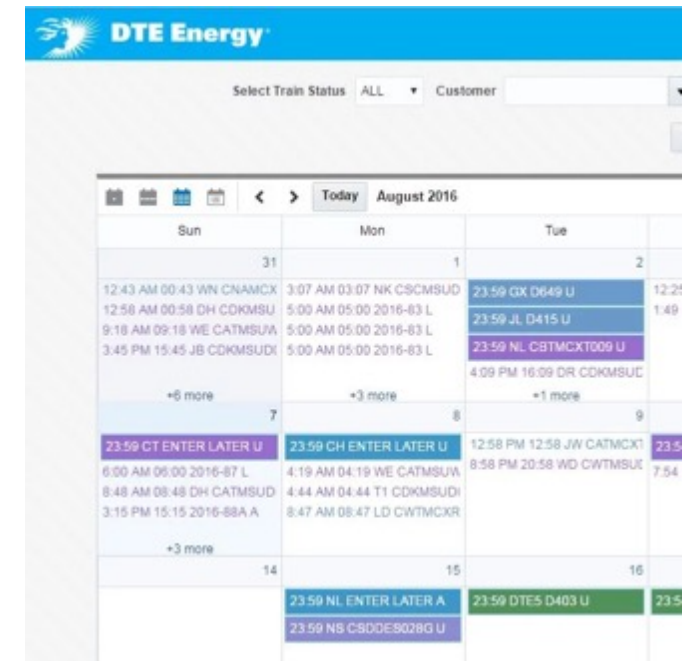
## UI/UX After



User Friendly Dashboard



Clear Modern Data Entry Flow



Interactive, Expandable Calendar