RLPTechnologies

JBoss innovation

RLPTechnologies: SOA Implementation
Innovation Track
JBoss World – Las Vegas

June 13, 2006

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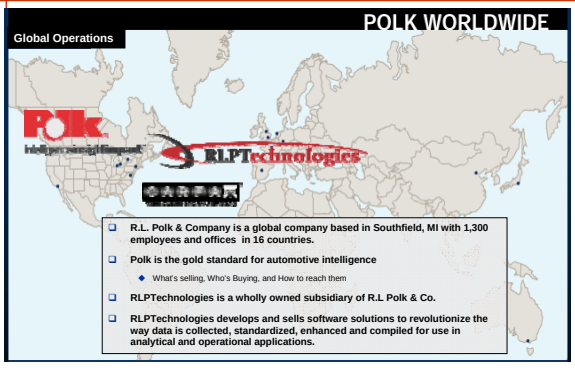
www.rlpt.com

Overview

1. Who We Are
2. Project Background
3. Solution Design
4. Implementation Overview
5. Key Results
6. The JBoss Difference

R.L. Polk & Company



- R.L. Polk & Company is a global company based in Southfield, MI with 1,300 employees and offices in 16 countries.
- Polk is the gold standard for automotive intelligence
  - What's selling, Who's Buying, and How to reach them
- RLPTechnologies is a wholly owned subsidiary of R.L Polk & Co.
- RLPTechnologies develops and sells software solutions to revolutionize the way data is collected, standardized, enhanced and compiled for use in analytical and operational applications.

Polk's Data Assets

- Polk manages a complex set of online vehicle data to support the automotive industry

~2.6 Billion Transactions	~500 Million Unique Vehicles	~250 Million Unique Households
		
• Titles • Registrations • Sales	• Passenger • Commercial	• Personal • Firms • Financial Institutions • Vehicle Manufacturers

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Collect Data From Over 240 Sources

- Polk processes ~ 600M new transactions including vehicle registrations, title, sales and financial transactions annually from 240 data sources

Primary Data Sources

- Automobile Manufacturers
- Finance Companies
- State Governments

Project Overview

- Project reFUEL Scope:
  - Re-engineer Polk's Data Collection, Standardization, Enhancement, Storage and Data Assembly Functions
- Migrate from a Mainframe environment to a commodity GRID based infrastructure
- Handle millions of embedded legacy business rules for key business functions used to enhance the data

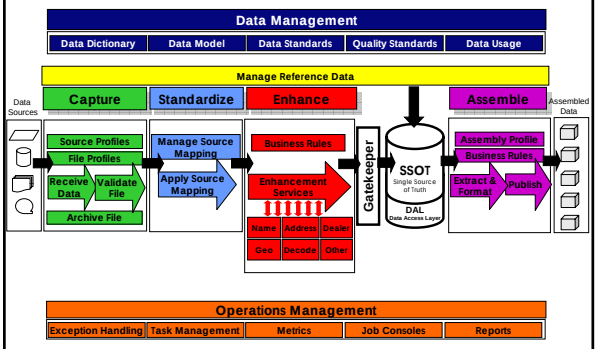
reFUEL

The scale of the solution introduced a unique set of challenges

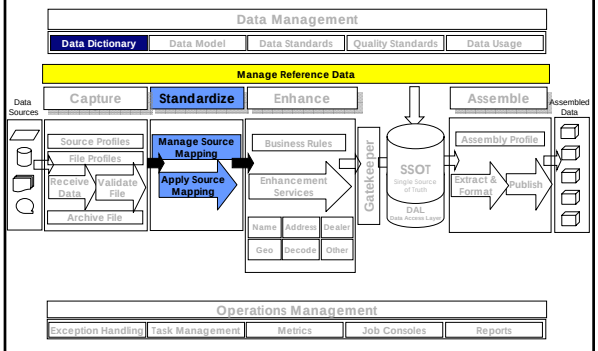
Solution Design Principles

- **Apply the concepts of lean manufacturing to the discipline of data processing**
  - Continuous Material Flow, and Just-In-Time Delivery
  - Quality Measurement
  - Standard Processes
  - Eliminate Waste
- **Architecture principles at foundation must provide a flexible and agile environment**
  - Service Oriented Architecture
  - Open Architecture, and Industry Standards
  - Security Fabric at Data and Component Level (RBAC)
  - Scalable platform

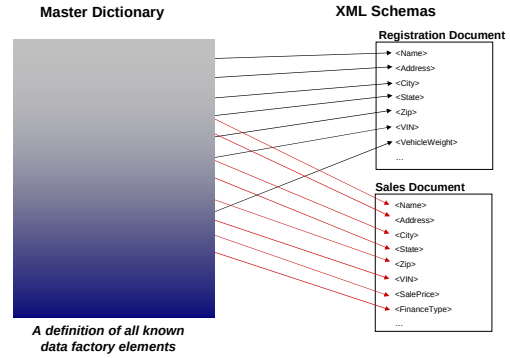
The Information Factory High-Level Process View



The Information Factory High-Level Process View

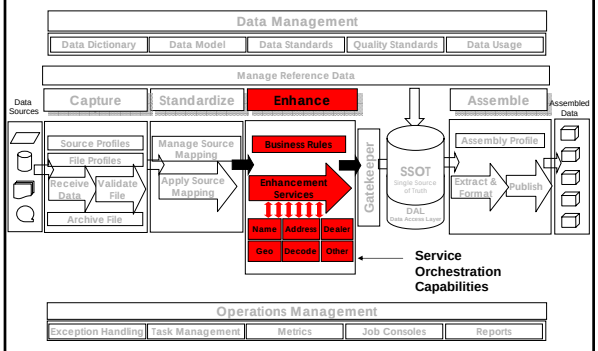


XML Schema and Data Factory Canonical Model

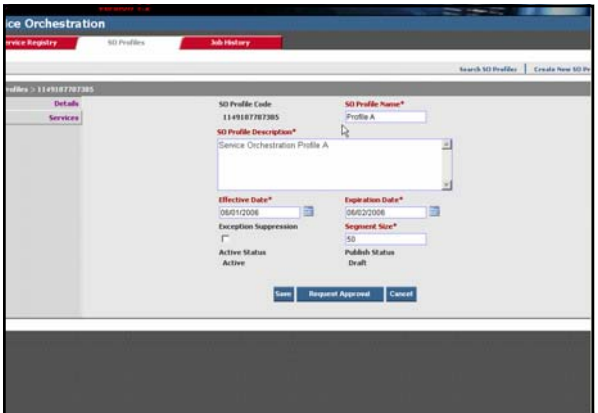


A definition of all known data factory elements

The Information Factory High-Level Process View

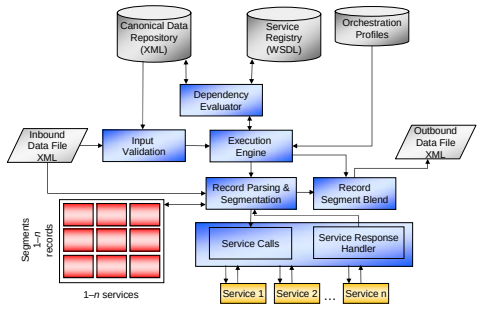


Service Orchestration Capabilities



Solution Design – SOA Framework

- Service Orchestration Engine Design

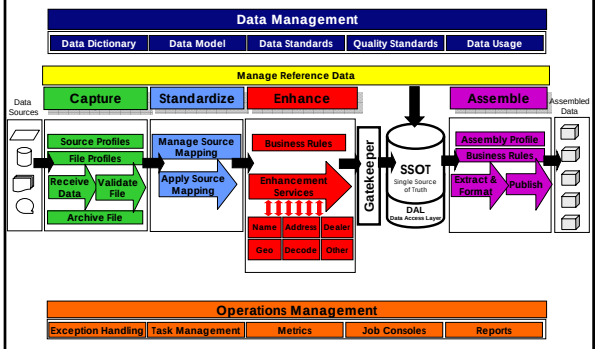


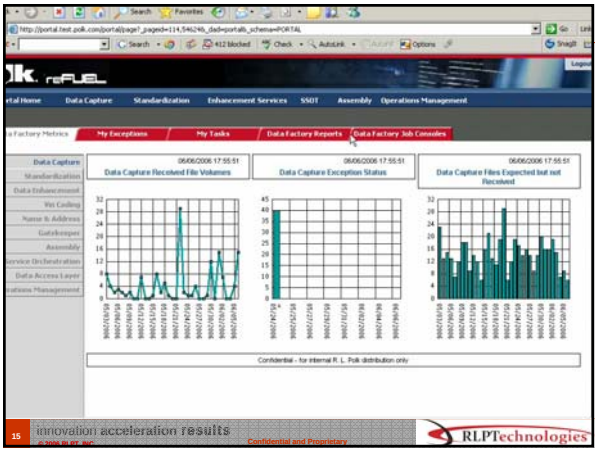
Solution Design – SOA Framework

- Service Orchestration Engine Design

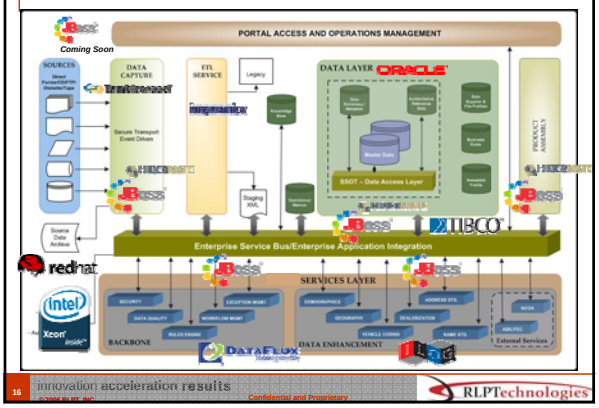
- **Flexibility to Integrate New Services**
- **Flexibility to Introduce New Data**
- **Parallel Processing**
- **Capabilities for Processing Very Large Volumes**

The Information Factory High-Level Process View





Enterprise Information Factory Conceptual Architecture



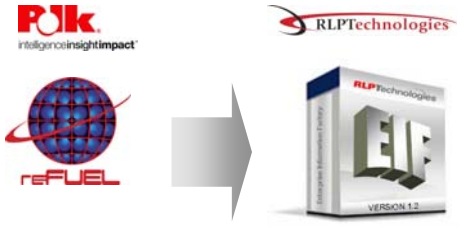
Technology Success – reFUEL Project

- **Provided world-class data collection & compilation services**
  - Automated manual processes, enabling an environment supporting improvements in the ***timeliness and availability of data***
  - Productivity improvements of up to 70%
- **Enabled a Single Source of the Truth**
  - One logical view of comprehensive information assets
    - Eliminate redundancy and potential for inconsistencies
    - Enhance data to ***ensure accuracy and completeness***
    - Ensure ***industry-leading data quality***
- **Created a service oriented architecture for application development and orchestration of data and data enhancement services**
  - Protected legacy applications and extended functionality of key applications
  - Orchestration engine provides for ***flexibility for maximizing use of data***, and an environment to enable the introduction of new services (applications or enhancement routines)
- **Shifted to a grid based computing model to empower capacity on demand**
  - Flexible and open environment providing future computing power, at significantly reduced costs

The JBoss Difference

- Support
- Scalability
- Ease of use
- Cost
- COTS Supportability
- LGPL

R.L. Polk Project Incubated a New Company & Product



PROJECT PRODUCT

The Enterprise Information Factory

2006 JBoss SOA Innovation Award

Congratulations to the entire RLPTechnologies team