



Digitizing the Supply Chain, from Planning and Procurement to Execution

Here's how 19 leading businesses have increased efficiency, realized cost savings and prepared for growth by applying digital technologies.

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The Digital Path to Supply Chain Leadership

As consumers, we have ever-increasing expectations for convenience (e.g., one-touch orders), personalization (e.g., recommended purchases), visibility (e.g., order tracking) and delivery (e.g., one-day free shipping). These experiences have trained us to have similar expectations in our business environment.

Businesses that aren't able to adjust and respond to this new level of expectation face higher hurdles to retaining market relevance. This is why industry leaders are relentlessly pressing their advantage to distance themselves from the crowd. Catching up will require a dedicated approach to attaining customer insight, scale and reach.

At the same time, an increasing number of technologies and capabilities — Internet of Things (IoT), artificial intelligence (AI), machine learning (ML), robotic process automation (RPA), intelligent automation, blockchain, robotics, etc. — are being touted as solutions for managing and responding to ongoing disruption. Most enterprises have had at least a proof-of-concept or pilot to test out and gain more experience with these new digital enablers, but only a few have been able to take these enablers and deploy them at scale in production environments.

At Cognizant, we believe supply chain leaders succeed when they leverage detailed insight about their products, customers and operations to formulate a distinctive customer experience. These leaders take their desired customer experience design and implement it into their processes, policies, data, systems and measurements. And they use enabling technologies to boost speed, visibility and intelligence in their supply chains.

To help businesses get started, we've developed snapshots of enterprises that have implemented building blocks of success across the supply chain domains of planning, execution, procurement and digital. Successful transformation across the entire enterprise will require more than just success in one domain area; that's why the challenge for supply chain professionals is to take these building blocks and assemble them into an operating model that enables them to deliver a distinct and differentiated customer experience.

We hope these case studies will be helpful as a starting point on your own endeavors. Best wishes on your journey!



Hong Mo Yang

*Senior Vice President, Supply Chain Practice leader,
Cognizant*

Planning





Supply Meets Demand with Major Toy Maker's New Global Planning System

The Challenge

One of the largest toy manufacturers in the world wanted to improve the transparency of its planning and execution system, with the goal of expanding its global presence and maintaining a competitive edge. This required it to leverage new-generation digital technologies while sustaining its core commercial and operational functionalities.

In the face of constrained supply and frequent global bottlenecks, a key goal was to prioritize supply based on multiple demand types and reduce supply chain friction resulting from fluctuating demand. The company's highly seasonal products experienced sharp demand peaks and troughs, with short lifecycles. However, the company's current system required continuous manual intervention by planners to manage and resolve exceptions, leading to reduced productivity.

The toy manufacturer also needed to reduce forecast bias and inaccuracies to avoid inflating inventory coverage or stock-outs. Other challenges included high air freight and inventory holding costs.



The Solution

We worked with the manufacturer to design new business processes and streamline current ones as part of a new global planning system. Inventory allocation is now based on weekly demand signals at a micro level, with visibility on inventory positions. Using system simulations, the company can explore multiple options for supply response to sudden demand changes.

The system is designed to use multi-echelon optimization to ensure optimal allocation of stock between

regional and local distribution centers, using pooling techniques. To resolve scarce supply situations, it also provides fair-share and demand-type prioritization based on business requirements.

The toy maker can now operate with fast, transparent and fact-based decision-making. By reducing manual intervention, employees can refocus on higher-value work. The increased visibility and optimized process flows make the system highly scalable and encourage cross-organizational standardization.

Results

- | Improved planning efficiency by 11%.
- | Reduced inventory obsolescence by 20%.
- | Improved in-stocks by 1.4%.
- | Reduced air freight by 15%.
- | Improved finished-goods inventory turns by 0.6%.



Integrated Business Planning Sets Up Dutch Electronics Business for Future Growth

The Challenge

To support business growth, a Dutch electronics company needed to improve its forecasting capability by establishing an integrated business planning approach. The company creates meaningful innovations in the areas of healthcare, consumer lifestyle and lighting.

The business needed to close silo gaps between its market groups and improve supply and demand visibility. It knew it needed to shift into data-driven decision-making by enhancing its data analysis capabilities and establishing a single set of data.

The Solution

We designed, built and implemented a supply chain planning and execution capability for the company, starting with its personal health market.

The solution is based on several JDA modules running on the JDA Supply Chain Planning platform: ESP & Order Promiser, Sales & Operations Planning (S&OP), Demand, Demand 360 and Inventory Optimization.



We first rolled out the templates to the legacy ERP backend system, and then transitioned them to the company's new SAP environment.

We conducted a limited deployment to the North America market, and then fully rolled out the template for several modules to personal health markets throughout Europe. We also defined extensions to Asia Pacific and Latin American markets.

Through the program, the company is well on its way to shaping the future of its integrated business planning

capability. Through its improved forecasting capability, it can now sell and deliver the right product at the right moment. Standard weekly, monthly and annual review cycles identify gaps and issues early in the process, reducing last-minute problems, and the various markets are better able to collaborate. The company can also support smarter and leaner processes, working with a single set of data, and is fully prepared to shift to data-driven decision making.

Results

- | Created the foundation for integrated business planning, data-driven decision-making and business growth.
- | Improved forecasting, resulting in:
 - 20% reduction in weighted mean average performance exception.
 - 15% reduction in forecast bias.
 - 10% improvement in customer service level KPI.



Better Intelligence Means Better Business for a Global Manufacturer

The Challenge

With its disjointed business intelligence systems, a global manufacturer lacked an enterprise reporting and analytics capability. The company had no unified dashboard for estimating key manufacturing metrics and no visibility into cross-network inventory. Its existing rebate claims process was also manual and cumbersome.

The company operates several diversified businesses that manufacture more than 50,000 products, ranging from office supplies to high-end materials used for medical and astronomical research across five continents.

The Solution

We provided an array of solutions to the manufacturer, including a dashboard for global manufacturing metrics, with product manufacturing and order fulfillment data. We also enabled dynamic supply chain planning via an application that loads exception histories, adds root cause to all exceptions, analyzes trends and enables inventory visibility and vital



statistics. An additional application provides inventory reporting by capturing inventory over time by location, supplier and organization.

We also established a regional self-supply capability that incorporates key metrics such as net sales, net factory cost, intercompany purchases, imports and vendor purchases. Freight cost reports are now available

for different geographies and purchaser profiles.

We also designed and implemented a supply chain scorecard that presents a set of key performance indicators, based on the manufacturer's requirements. A sales analysis and reporting system analyzes sales by product, customer and territory/sales organization.

Results

The manufacturer is now able to:

- | Measure progress toward organizational success factors and goals via key performance indicators of actual and operating plans.
- | Perform detailed analysis (with recommendations) of KPIs by month, quarter, year, area, region, country, business, division and commodity.
- | View KPIs on net factory cost, inventory balance, inventory turns, nonworking inventory, etc.
- | Analyze data in U.S. dollars or in a region's native currency.



With Improved Inventory Visibility, Automotive OEM Improves Control Over Supply, Demand and Partners

The Challenge

To ensure its competitiveness, one of the world's largest automotive OEMs needed more timely and accurate information to make critical business decisions. The North American-based business needed a transparent view into the global requirements for any given part number, as well as visibility into the supply and demand data stored in its scenario simulation toolset.

The company also needed to improve its ability to collaborate with and manage its suppliers.

The Solution

After helping the company define its goals and objectives for a global constraint management solution, we developed a conceptual design and a plan to implement the Kinaxis RapidResponse concurrent planning system.



We analyzed the as-is and to-be processes and validated the processes to be built, and then identified the data sources and

developed the data strategy. We conducted a test plan and validation strategy before rolling out the system globally.

Results

- | Reduced premium shipments by 15%, which lowered logistics costs, reduced “noise” in the system and improved availability of materials.
- | Improved forward visibility of supply/demand issues, resulting in a 12% reduction in stock-outs and excess stock.
- | Enabled risk-pooling by improving the management of globally shared parts, leading to 10% inventory reduction.
- | Increased efficiency of supplier management and collaboration, leading to agile procurement processes.

Execution





Warehouse Management System Boosts Efficiency, Accuracy for Global Business

The Challenge

A global health, beauty and homecare company wanted to improve its inventory accuracy and fulfillment timeframes, while also boosting its efficiency and cost savings.

Based in the U.S., the company specializes in the use of multi-level marketing to sell health, beauty, and homecare products. It manufactures and sells its own products, as well as brand-name products from other companies, through a network of three million independent distributors worldwide.

The Solution

We worked with the company to build a robust warehouse management system to standardize warehouse operations across the region. The system's capabilities include automated put-away, allocation, picking, packing and replenishment.

We also established a highly detailed approach to inventory management, including management of product



expirations. To ensure cost-effective packaging, we also optimized cartonization logic.

To enable these capabilities, we implemented the JDA Warehouse Management System, and integrated it with a new parcel-tracking and pick-to-light system, a light-directed picking technology that provides

an accurate and efficient method of paperless picking, putting or sorting and assembling products.

We also established an effective way to assign airway bill numbers for each consignment, and seamlessly integrated the solution with upstream and downstream systems.

Results

- | **Reduced manual effort by 15%**, enabled by system-determined put-away; automated location management; label printing and allocation; and system-generated picking and replenishment.
- | **Increased cost savings by \$200,000 annually**, enabled by racking space, consolidation of warehouse operations and optimized cartonization.
- | **Established inventory accuracy of greater than 98%**, enabled by inventory tracking to item, lot, location, pallet and inventory status; automated location management and removal of bin card; and automated inventory expiration management.
- | **Established picking accuracy of greater than 98%**, enabled by system-managed and triggered replenishment, leading to better distribution of inventory.
- | **Decreased fulfillment time by 20%**, enabled by automated shipping label and picklist generation; automated inventory allocation; introduction of "pick to light" and picklist-based picking for repack cartons.



A New Approach to Transportation Management Reaps Savings and Agility for Leading Retailer

The Challenge

With the need to reduce costs and improve capacity utilization, a leading U.S. general merchandise and grocery retailer decided to upgrade its JDA-based transportation management system from Version 6.3.1 to Version 8.0, and adopt best practices in transportation management.

The business wanted to increase routing productivity by utilizing system-generated routes; improve efficiency by identifying and exploiting backhaul opportunities; prepare for future initiatives and enable backhaul by rebuilding tariffs; and update its financial system and processes to take advantage of these new functionalities.

The Solution

We redesigned the retailer's transportation planning processes to enable more systematic load and route planning, with the goal of increasing system autonomy. We also redesigned the backhaul process to leverage the system's ability to plan



continuous moves/trips. To improve operational efficiencies, we enabling trip-level communications via redesigned EDI capabilities.

We worked with the retailer to rationalize its tariff structure, and

acted as a managed services provider to execute program delivery, implement change control, ensure infrastructure support and enable an effective project hand-over.

Results

- | Saved over \$20 million in annual costs.
- | Improved capacity utilization over 20% through increased backhaul (from 10% to over 20%).
- | Improved visibility for planning and execution from 30%-40% to over 80% of domestic transportation.
- | Established network flexibility, with the goal of closing down remote distribution centers and optimizing transport via hubs.
- | Enabled support for roundtrip and advance backhaul moves for all merchandise types.
- | Significantly decreased operational costs due to a simplified tariff structure and lower invoice volume.
- | Improved tariff governance and planning performance for more than 30,000 shipments per day.
- | Laid the foundation for further transportation planning/ optimization and cost allocation for future initiatives.



Retailer Boosts Accuracy, Slashes Costs with Warehouse Management Upgrade

The Challenge

The second largest home improvement retailer in the U.S. needed to upgrade its JDA Software warehouse management system. Because it was using an outdated version, it was unable to move to newer versions of its operating system, and it faced an unmanageable number of customizations, leading to very high maintenance costs and system instability. Its aging infrastructure also affected the stability and scalability of the IT landscape.

The company serves 16 million clients per week and has over 1,800 stores in North America, with sales of \$59 billion per year.

The Solution

Through close collaboration with the retailer and JDA Software, we planned, designed, built and implemented the new system, and ensured a successful migration from RP 2006 to JDA WMS 8.2.



We helped the retailer adopt best industry practices, such as the use of a configuration matrix and checklist that ensured no gaps in the business's configuration requirements. We also helped connect vendors in meaningful and accountable ways by utilizing an integrated program plan tracked by the program management team.

To address open issues, we incorporated "daily war room" and sync meetings with onsite and offshore teams. And we developed batch scripts for automated code rollouts — a first-of-its-kind innovation.

Results

- | Eliminated an estimated \$2 million per year in maintenance and support costs.
- | Ensured zero disruption to normal business operations during the migration, with warehouses exceeding their normal capacity on Day 1 of their operations with the new version.
- | Improved replenishment processes and fulfillment accuracy.
- | Reduced integration errors 80% by enhancing the advance shipment notice/purchase order/item download process.
- | Reduced manual effort 70% by automating the pre-paid order process.
- | Increased shipment accuracy 80% by improving the order-building process and near-real-time inventory snapshot capability.
- | Improved inventory accuracy 80%.



New Warehouse Management System Boosts Productivity and Reduces TCO for Major Retailer

The Challenge

In order to improve its inventory management and product flow, the largest specialty lifestyle retailer in the U.S. wanted to transition the warehouse management systems in all its data centers from SAP to Manhattan, with its distribution network split between the two vendors.

With over 1,300 stores, the retailer also wanted to align processes within the majority of its networked data centers.

The Solution

We collaborated with the retailer to design, support and implement the new system while rationalizing the server landscape and standardizing processes.

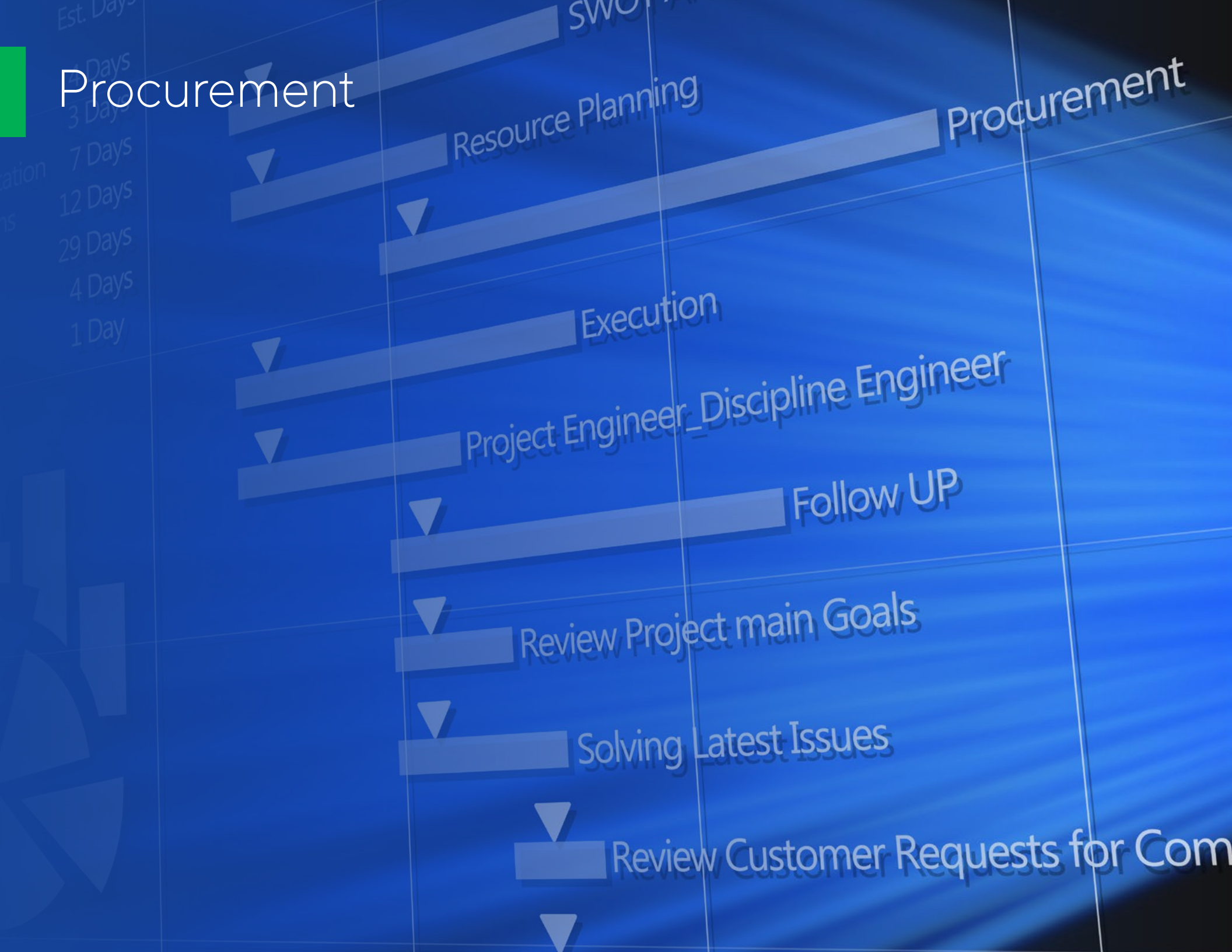
We also provided advice and guidance on additional functionality, such as a new customized picking process and tools/accelerators, that were ultimately rolled out to all facilities based on this implementation.



Results

- | Reduced total cost of ownership for the warehouse management systems by 40% by providing an up-to-date common platform and rationalizing the server landscape.
- | Improved the productivity of warehouse resources by 45% by implementing a customized labor management solution, which also reduced labor costs by \$1.2 million annually across all facilities (space, labor, equipment, tasks and material flows).
- | Reduced application downtime by 60% by incorporating standardized and simplified processes, thus providing consistency in the warehouse network.
- | Increased pick rates by 35% after one week of go-live by suggesting a new customized picking process, resulting in a revenue increase of \$0.8 million in the first quarter.
- | Reduced manual effort by 250 hours by leveraging tools/accelerators for major pre-go-live activities.

Procurement





Pharma Services Provider Streamlines Procure-to-Pay, Speeds Supplier Activities

The Challenge

After experiencing limitations with its decentralized procurement system, a leading drug development and manufacturing services provider decided to shift to an integrated procure-to-pay system. The organization provides services to global pharmaceutical, biotechnology and specialty pharmaceutical companies.

With its current system, the business had difficulty gauging supplier performance, and reporting was cumbersome, with contract documents spread across multiple systems. It relied on multiple ERPs, with decentralized master data.

Another issue was significant latency in the requisition-to-purchase-order process due to bottlenecks in the approval process. High manual intervention was also required, causing contract delays.

The Solution

We developed a roadmap for implementing best practices across the company's procurement, sourcing, contracts, spend analysis and supplier information. We used



the Ariba Supplier Information & Performance Management module to centralize supplier information and manage performance.

Legacy contracts were migrated to the Ariba system, with best-in-class supplier enablement methodologies. We standardized global process templates, documents, tasks and processes for use across sites, with the flexibility to include local documents. A single interface for all master data was developed, and integration was done using Ariba tools.

With the new system, the business now has a single window for monitoring all tasks, resulting in fewer data issues. It also has better visibility into spend analysis, which will lead to increased savings. Supplier onboarding and enablement is much quicker, with contracts centralized in a single Ariba storage system. Best-in-class analysis reports can now be generated to identify potential problems.

Results

- | Reduced latency time by 25% in purchase order process.
- | Sped contract creation process by 20% due to template consistency.
- | Streamlined sourcing process with templates and library.
- | Expect to reduce latency from requisition to order.



Automated Procure-to-Pay Reaps Cost Savings, Better Vendor Relationships for Corporate Properties Group

The Challenge

A U.S.-based corporate properties group needed to integrate its sourcing and procurement processes. The business was experiencing a lack of spend compliance and poor policy enforcement. Its communication and collaboration with suppliers was disjointed, and it was constrained in its ability to take advantage of early pay discounts.

As a result, the organization was suffering from high operational costs, missed cost savings, user dissatisfaction and vendor frustration.

The Solution

We worked with the business to establish a transaction network that would transmit procure-to-pay transactions electronically with vendors. We established a guided buying process, offering catalogs and contract compliance, as well as guided sourcing for electronic



enablement of strategic and tactical sourcing. To do this, we integrated and updated existing SAP applications, and integrated an electronic invoicing capability.

As a result, the business has now reduced paper transactions and is able to take advantage of early payment discounts or extended payment terms. Reporting is also enhanced due to improved data quality and vendor relationships.

Results

- | Automated creation of purchase orders by 75% after shopping cart approval.
- | Increased automation of invoice receipt from 0% to 30%.
- | Increased invoice receipt from 67% paperless to 95%.
- | Increased automation of purchase order invoice processing from 0% to 95%.
- | Improved end-to-end touchless transactions from 0% to 50%.
- | Ensured 99% of in-scope spend is influenced by sourcing.
- | Reduced cycle time 10% for “RFX” (request for information, request for proposal, request for quote and request for bid) due to improved supplier enablement.
- | Reduced purchase order creation and dispatch cycle time by 100% (post financial approval) for automated purchase orders.
- | Reduced purchase order invoice cycle time by 30%.



Multi-brand Restaurant Company Streamlines Enterprise Business Processes

The Challenge

With its reliance on multiple financial applications and processes, a global multi-brand restaurant company lacked a centralized reporting capability. Its processes were also inefficient due to various work streams, numerous integration points and manual spreadsheet loads.

Other pain points included long lead times of two to three weeks for general ledger period closings, cumbersome reporting due to sub-optimal configuration of chart of accounts rollups, and undocumented, informally managed master data management. The company's cost center segment values also deviated from leading chart of accounts (COA) best practices.

The company runs 8,300 restaurants worldwide, with 250,000 members and 700 franchisees spread across 16 countries, and is ranked among the top five largest restaurant companies in the U.S.

The Solution

Working closely with the business, we rationalized the company's financial applications and processes.



We simplified integrations by establishing defined patterns for efficient maintenance, error handling, performance reporting, scalability and portability.

We implemented a best-in-class COA redesign, and improved the month-end close process by implementing a financials suite, streamlining segregation of duties and automating manual journals. The business can now add vendors preemptively, which enables more efficient invoicing.

We streamlined master data management and established a formal data flow across systems, and created a portal-based billing solution for franchisee account receivables in Oracle ERP Cloud.

We're now developing a franchisee-friendly, GUI-based accounts receivable portal solution to manage franchisee billing and payments related to royalty, marketing co-op funds, etc.; enable updates to monthly sales and print certificates; and create journals using sales estimates.

Results

- | Support for 1,400 active users using new Oracle ERP cloud applications.
- | Enabled 40 successful automated interfaces.
- | Created over 700 expense reports in one month after go-live.
- | Received over 7,250 accounts receivable payments worth over USD \$15 million in two months of go-live.
- | Completed more than 7,150 payments worth over USD \$50 million, using ACH check printing, EFT, bank integrations.



Waste Management Company Increases Financial Control with ERP Overhaul

The Challenge

With its highly customized legacy ERP system, an industry-leading waste management services business needed to improve its reporting, analytics and budgetary control capabilities. The system was not extensible and allowed limited integration, resulting in complex procurement and financial closing processes.

The business is spread across 34 states in the U.S., and owns and operates 14 landfills, 32 solid waste collection businesses, 46 waste transfer stations and 18 recycling facilities.

The Solution

To help the waste management company meet its goals, we streamlined its budgetary management processes and established a centralized purchase and payment management system.

We implemented several customized workflows for the fixed-asset, purchase order and billing functions,



and enhanced and automated an intercompany journal entry process.

The system was then integrated with third-party suite apps, and we delivered application support and enhancements through an onsite-global sourcing delivery model. In total, implemented modules

included procure-to-pay, general ledger/reporting, fixed assets and revenue management.

The system was based on a highly configurable and customized Oracle NetSuite ERP system, a strong foundation for future innovations.

Results

- | Increased month-end closing process efficiency by 40%.
- | Realized significant savings through centralized purchasing due to the ability to negotiate better rates with vendors.
- | Increased control over capital expenditures with budget management solution.
- | Achieved 100% reconciliation through automated asset management processes, as well as 10% to 15% savings in insurance premiums for retired assets.
- | Eliminated reconciliation errors and reduced financial risk through automated bank reconciliation process.
- | Enhanced reporting capabilities with out-of-the-box and customized KPIs, enabling faster decision making.
- | Increased data transparency with real-time dashboards.



An Optimized Contract Lifecycle Management System Delivers Spend Visibility to Education Publisher

The Challenge

The world's leading education publishing and learning company was facing issues in its deployment of the Coupa contract lifecycle management system because of the difficulty in configuring a large number of approval workflows. As a result, contract creation and approval was being performed offline, with Coupa only used as a repository to store published contracts.

For business users, creating and publishing a contract was very complicated and time-consuming, with manual intervention required to obtain contract approvals. There were no forms available to author or create contracts, and there was little visibility into spend data.

The company offers educational courseware, assessment and qualifications, as well as a range of teaching and learning services powered by technology.

The Solution

Through application enhancements and support services, we helped the company successfully deploy the Coupa contract lifecycle



management system. Specific updates included new lookup for contract commodities; new lookup values; configuration of over 200 approval chains based on business requirements; addition of custom fields; and customized contract forms.

We also made changes to the home page content, enabling users with

quick access to contract forms, and we configured custom roles for business users.

With these changes, the business now has more control over spend, with improved visibility into live data and tracking of spend on contracts for PO-backed and non-PO-backed invoices.

Results

- | **Increased control over spend.** Business spend data can now be tracked during the lifetime of each contract, with complete visibility.
- | **Established contract-backed invoicing.** Non-PO invoicing can now be done by backing the invoice with a contract.
- | **Increased efficiency of approvals** by automatically routing contracts to corresponding groups based on commodities and other metadata.



Large Healthcare System Streamlines Disjointed Workflows and Unifies Data through the Cloud

The Challenge

After a period of growth through mergers, acquisitions and affiliations, one of the largest nonprofit healthcare systems in the U.S. was working with numerous disparate systems that hampered operations and impeded access to critical decision-making data.

The organization's key corporate systems, including finance, HR and supply chain, were heavily fragmented across multiple platforms, with no "single version of the truth." The business's subsidiaries and affiliates found it difficult to work in unison, and there was no easy way to get a 360-degree view of an employee. Additionally, the company's core financials system — an early version of PeopleSoft — badly needed an upgrade.

The Solution

Rather than pursuing a series of complex upgrades and integrations, we proposed that the healthcare organization move its entire infrastructure and enterprise applications to the cloud. We devised a plan to migrate 16 PeopleSoft applications from three different companies onto 21 Oracle SaaS



cloud modules, encompassing one of the first full-suite Oracle cloud migrations in the healthcare payer space.

The modules encompassed many business functions, including human capital management, recruitment and onboarding, enterprise resource planning, procurement and enterprise performance management, as well as an analytics platform.

After an 11-month migration, the organization has replaced disjointed

workflows with seamless, end-to-end processes. It now operates on a common financial platform, using industry best practices for tasks such as expense approvals, procurement and budgeting. In HR, everything from compensation cycles to goal-setting is increasingly standardized, and it now uses a unified reporting platform with drill-down capabilities.

These efficiencies have enabled the organization's staff to turn their attention to activities that drive customer value.

Results

- | Expected cost savings of \$700,000 per year, with IT costs projected to drop 30% to 35% annually.
- | Standardized and modernized the user experience, including mobile capabilities.
- | Replaced disjointed workflows with seamless, end-to-end processes, from requisition to journal entry.
- | Accelerating the monthly close cycle by more than a day through a new budget allocation process.

Digital Supply Chain





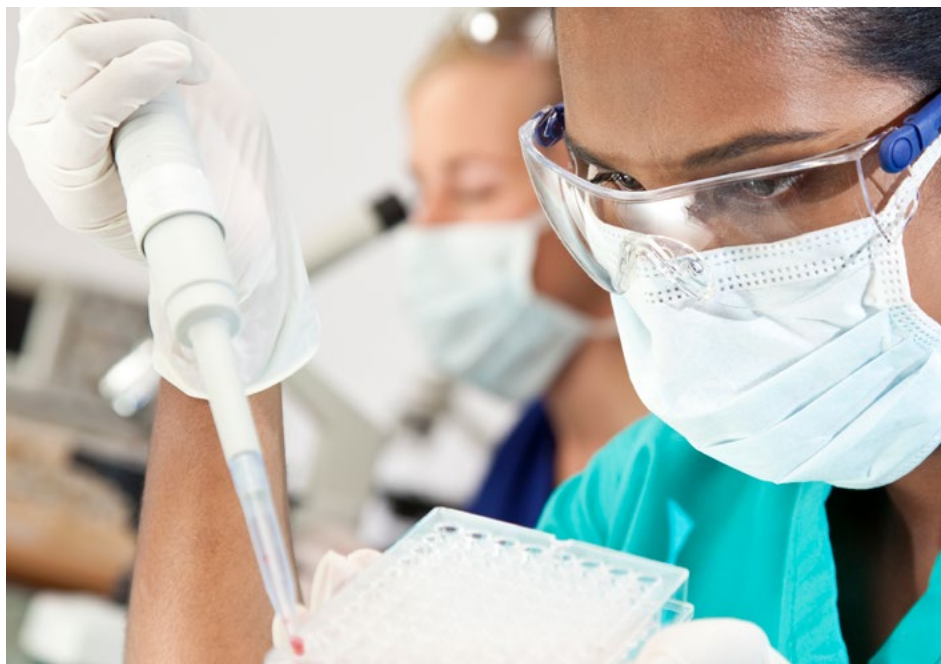
With Better Visibility into Inventory and Costs, Biotech Business Improves Forecasting and Profitability

The Challenge

A U.S. biotechnology company was struggling with manual planning processes and a lack of end-to-end supply chain visibility, which hampered demand forecasting and diminished profitability. The organization's business is to discover, develop and commercialize treatments for cancer and inflammatory disorders.

With high levels of product inventory and expired products, the organization realized it needed to automate the batch traceability process to reduce errors and improve the traceability of finished goods inventory back to manufacturing/planning origin.

The organization also wanted to receive status updates and other key performance metrics such as "delivered on-time, in-full" (OTIF) for logistics service providers (LSP) and distributors, as well as real-time visibility into LSP-created orders and real-time alerts from freight. The company also needed detailed logistics-related costs from third parties.



The Solution

Through workshops and surveys, we developed an understanding of the organization's business processes from the end-user experience point of view. We developed a business case to enhance visualization and analytics throughout the supply chain planning and delivery process, and helped the company procure and implement a supply chain control tower to increase end-to-end visibility.

The organization now operates with interactive inventory reports with projected inventory levels, and a current and accurate "single version of the truth" for demand forecasting, supply execution and logistics data. It has automated batch traceability and genealogy tracking, and ensured internal logistics visibility for intra-company shipments, with tracking and alerting capabilities, as well as real-time order visibility into LSP orders.

Results

The organization anticipates 590% ROI in five years' time and is now able to:

- | Support the sales and operations planning process.
- | View current global inventory levels, with drill-down capabilities.
- | Forecast inventory levels.
- | Conduct data visualization, scenario-planning and what-if analyses.
- | View real-time work-in-progress and logistics for suppliers and contract manufacturing organizations.
- | Source and visualize detailed data on logistics costs and performance.



By Revamping Supply Chain Processes, Packaging Provider Realizes Cost Savings, Agility

The Challenge

A U.S.-based global packaging solutions provider had made numerous attempts over the previous decade to improve innovation, boost collaboration and reduce costs across its supply chain, with the goal of creating a more responsive, flexible organization.

However, it had been stymied by its disparate, non-standard manufacturing systems, including procure-to-pay, order fulfillment, paper trimming and production management, warehouse management and shipping transportation planning, and order-to-cash. The result: inefficient order management, high inventory levels, underutilization of assets, poor delivery performance, excessively manual processes and lack of common data.

The company turned to us to bring all supply chain and mill operations onto a single, integrated platform to drive business improvements and growth.



The Solution

We used the Supply Chain Operations Reference (SCOR) framework to help the company harmonize its core supply chain business processes across its three paper manufacturing mills, two converting locations, distribution plants and warehouses. The system includes integration with a knowledge management portal and mobile access to reports and applications.

By using SCOR, we increased the efficiency of scheduling machines, reduced waste and improved customer service through integration. Information from third-party applications now flows directly to enterprise applications that manage production, transportation and warehousing, thus making it far easier for employees to see, track and manage inventory and orders.

Results

- | Projected \$10.5 million annual savings.
- | Improved paper machine/extruder efficiency by 10%.
- | Increased open stock availability by 20% with automated inventory replenishment.
- | Reduced customer account representatives' call handling time by 10% by migrating a portion of order placement to the Web (and via EDI).
- | Improved data availability and consistency by 30% across the organization.
- | Reduced inventory obsolescence by 15%.



Online Retailer Enables International Growth with New Global Stock Management Strategy

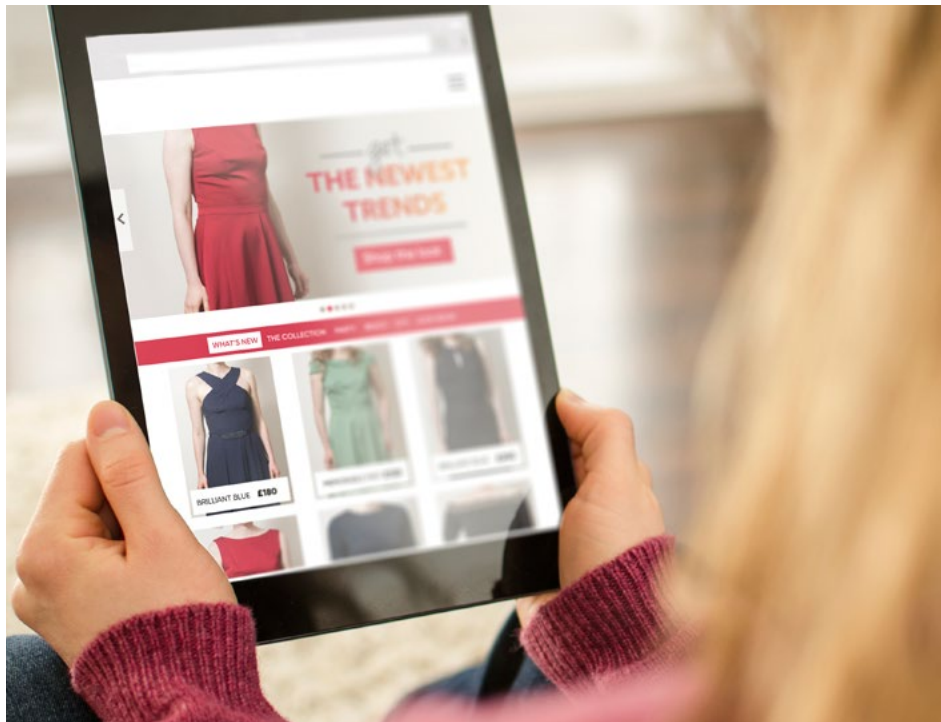
The Challenge

A large UK-based online fashion retailer wanted to offer best-in-class delivery capabilities and more product offerings to its international customers. It was hampered, however, by reliance on its UK-based fulfillment center, which drove the product display on its global website and was nearing its maximum throughput and stock-holding capacity.

The retailer – with eight international websites and free shipping and returns to customers in over 250 countries – decided to build a scalable fulfillment model to enable continuous international market growth.

The Solution

The company launched a fulfillment center in Germany to cater to its top-growth market (Europe), which shifted its model from UK-centric to global. We worked with the retailer's team on defining the product roadmap for building a global stock management model.



We helped the retailer introduce new features, such as geography-based intelligent fulfillment, localized delivery options and geography-based product offerings on the website. We also helped build an EU-compliant solution for shipment to non-EU customers from the German fulfillment center.

By decoupling the current website view from the UK fulfillment center, the retailer now offers a flexible, plug-and-play, geography-based product view that leverages its global warehouses.

Results

- | Localized product offerings, next-day delivery and click-and-collect delivery options for EU customers.
- | Increased flexibility and granularity for determining the optimal fulfillment center for servicing customer orders.
- | Reduced capacity constraints on the UK fulfillment center.
- | Ability to launch websites for new geographies, such as Asian and Scandinavian countries, to further scale international growth.



Global Commodity Trader Expands Business with Scalable Trading Platform

The Challenge

A top-three multinational commodity company needed a scalable trading platform to improve control of its trading operations, profit & loss and risk management. It also needed to digitally enable its business channels in order to expand into new geographies and markets.

The Solution

To establish a digital platform strategy, we conducted due diligence of the company's processes and applications, and devised a phased approach to commodities onboarding. We created more than 12 process streams, covering the lifecycle across five commodity areas.

We aligned the functional architecture with regulatory needs, and created roadmaps for enterprise applications and data warehouse/ business intelligence, with plans to leverage artificial intelligence, machine learning, big data, robotic process automation and blockchain.



We launched a change management initiative for adoption of the new platform across business lines.

Additionally, we conceptualized and developed an online marketplace for

physical delivery of the commodities in select markets and prioritized the business module for phased development of the platform.

Results

- | Created an adaptable and scalable digital platform that can handle multiple lines of business.
- | Harmonized business processes across commodity lines and the trading lifecycle.
- | Improved risk management and operational control, leading to loss avoidance and better compliance.
- | Created online digital marketplaces for commodity trading to reach specific geographies and customer channels.
- | Anticipate ability to manage volumes of over \$125 billion annually.



Fleet Analytics Improves Productivity and Optimizes Capital Spending for Mining Operations

The Challenge

To optimize its capital investments, a large organization needed to improve the availability and utilization of its haul trucks across its mining operations. With its multiple fleet management systems, and different versions at various sites, the company lacked a standard approach to measuring utilization.

The business also relied on a manual and thus lengthy approach to mapping delay data from the fleet management system to work orders from its SAP system. Data quality issues ranged from duplicate to missing data.

The Solution

To improve data availability, we worked with the company to integrate data from its fleet management and SAP systems. This involved validating the data against existing processes and datasets and establishing connectivity for a daily data refresh.



We improved visualization and analytics with production and maintenance dashboards, using a standard reporting framework. We also established an intelligent data matching process to integrate delay

data from the fleet management system with SAP work orders, and we ensured that dashboard data is validated against existing reports. The data was also made accessible through mobile devices.

Results

- | Established a repeatable and highly customizable process for integrating data from group-wide operations.
- | Standardized data across sites.
- | Reduced manual effort through automation, including 156 man-days annually for maintenance report generation.
- | Increase productivity 10% due to faster analysis and issue resolution.

Learn More

For more information and to view our full library of client case studies, visit www.cognizant.com/case-studies.

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Cognizant Enterprise Applications Services (EAS) offers high-value digital and business transformation solutions focused on customer experience, human capital management, supply chain management, finance/enterprise performance management, intelligent business process management and digital integration. Our digital supply chain and business transformation services cover the gamut, from business strategy and advisory services, product consulting and implementation, through post-implementation value-enhancement services. Our group works closely with clients to simplify, modernize, secure and digitally enable their enterprise applications environment. We partner with major enterprise applications vendors such as SAP, Oracle, JDA, Manhattan and Kinaxis. Clients leverage our deep industry experience, analytical insights and strategy and transformation capabilities to improve operational performance, as well as enhance employee productivity and engagement across the enterprise. To learn more, please visit www.cognizant.com/cognizant-digital-systems-technology or email us at SCM@cognizant.com.

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Cognizant

World Headquarters

500 Frank W. Burr Blvd.
Teaneck, NJ 07666 USA
Phone: +1 201 801 0233
Fax: +1 201 801 0243
Toll Free: +1 888 937 3277

European Headquarters

1 Kingdom Street
Paddington Central
London W2 6BD England
Phone: +44 (0) 20 7297 7600
Fax: +44 (0) 20 7121 0102

India Operations Headquarters

#5/535 Old Mahabalipuram Road
Okkiyam Pettai, Thoraipakkam
Chennai, 600 096 India
Phone: +91 (0) 44 4209 6000
Fax: +91 (0) 44 4209 6060

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