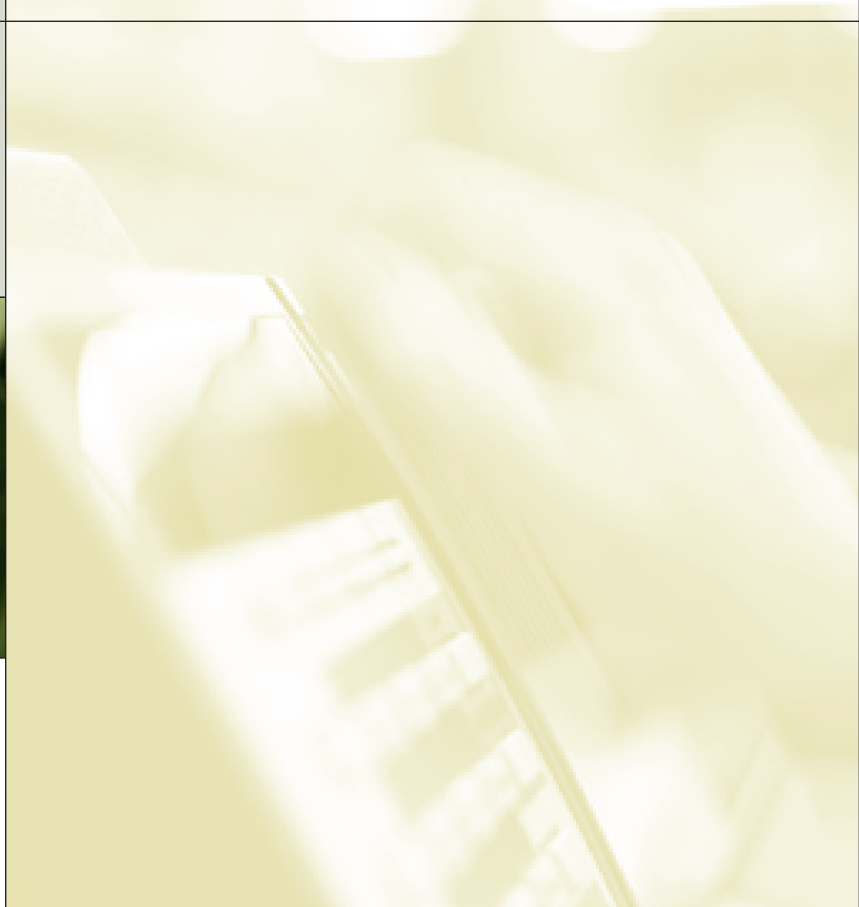
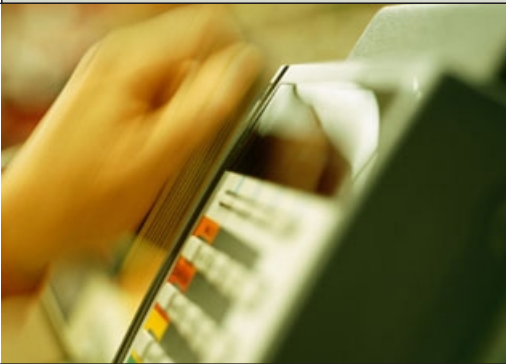


## APPLICATIONS

A WHITE PAPER SERIES

COMPLEXITY OF PRODUCTS, SCALE AND PROCESSES, ALONG WITH SUPPLY CHAIN CHALLENGES, PLACE EVER GREATER DEMANDS ON RETAILERS. IT SYSTEMS ARE AT THE HEART OF RETAIL OPERATIONS AND HENCE PLAY A CENTRAL ROLE IN ALLEVIATING PRESSURE POINTS IN THE RETAIL SECTOR.

# Retail's Complexity: The Information Technology Solution



**SYNTEL**  
Consider IT Done®



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# Retail's Complexity: The Information Technology Solution

With the increase in globalization of retailers both in terms of their points-of-sale, as well as their points-of-supply, the Information Technology (IT) spend in the retail sector has increased considerably and plays an increasingly important role in managing the complexity of retail operations.

*“...retailers who do not manage their IT landscape effectively will find that, in time, the IT systems become part of the problem rather than components of the solution.”*

## 1.

### INFORMATION TECHNOLOGY'S INCREASED ROLE IN THE GLOBAL RETAIL INDUSTRY

At the turn of the twenty-first century, there were few global retail chains—most retail chains were local to countries. This has given way to a globalized set of retailers such as Wal-Mart, Tesco, GAP, IKEA, and others.

With the increase in globalization of retailers both in terms of their points-of-sale, as well as their points-of-supply, the Information Technology (IT) spend in the retail sector has increased considerably and plays an increasingly important role in managing the complexity of retail operations. Gartner estimated the increased IT spending to be about 13 percent CAGR from 2000 through 2004.

However, the corresponding growth in revenues for the retail sector has been at only about two percent, translating IT costs to be a larger fraction of the overall cost base of the retail sector. This has resulted in considerable pressure on IT to deliver value in the retail sector as well as closer scrutiny of the IT spend.

## 2.

### CHALLENGES: RETAIL'S COMPLEXITY

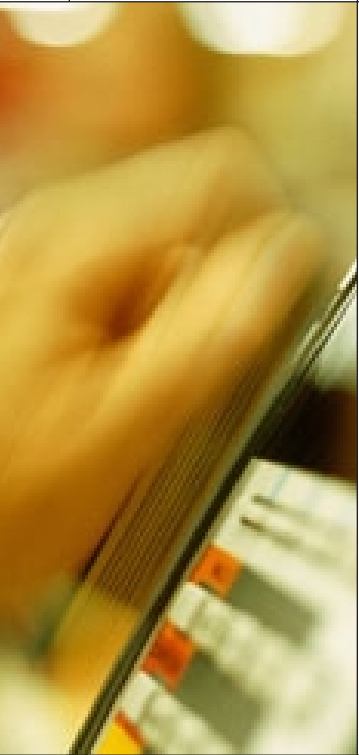
#### RETAIL OPERATIONS ARE EXTREMELY COMPLEX

Much of the retail operations functionality is driven by customized point solutions in areas such as merchandizing, supply chain management, in-store operations, seasonality and promotions planning. This means the underlying IT systems to drive operations are equally complex.

#### **Retail operations are inherently complex due to four factors:**

- a) *Product complexity.* The retail sector has a high degree of product complexity, with the number of SKUs in stores running anywhere from the tens of thousands to more than two hundred thousand, a high degree of seasonal and fashionable items, and a lack of standardization of product hierarchies.
- b) *Supply chain challenges.* With so many different outlets and channels, multiple hand-offs, and high frequency of replenishment, developing and managing an efficient supply chain remains one of the primary challenges in the retail sector.





c) *Scale complexity.* Retail operations are executed on an extremely complex scale. The U.S. retail sector alone deals with hundreds of millions of transactions per day, driven by millions of customers who shop through tens of thousands of outlets.

d) *Process complexity.* The business processes that support this environment are also inherently complex due to the multiple touch points across players in the value chain (manufacturer, distributor, retailer, consumer), the coordination required between the different planning cycles of each of these players, and geographic dispersion.

While third-party packages do exist for several functional areas of the retail world, most retailers find that these packages either do not cover a broad enough functional footprint and/or they require a fair amount of customization, as the 'out of the box' functionality seldom meets the retailer's holistic needs.

### KEY CHALLENGES IN MANAGING THE COMPLEX RETAIL IT LANDSCAPE

**CIOs in the retail sector are faced with challenges along four key dimensions:**

- a) *IT cost and performance under pressure* owing to the high growth in annual IT spend in the retail sector (~13%) while revenues have grown much slower (~2%).
- b) *Lack of standards in a complex, highly customized IT environment* leading to integration challenges, making changes and new functionality development cumbersome and expensive.
- c) *High maintenance costs* stemming from the high degree of customization and fragmentation of point solutions, many of which span different technology platforms.
- d) *Poor data integrity*, the result of systems fragmentation, point solutions, high degree of customization and lack of an underlying best practice architecture, because there is no good practice standard, out-of-the-box solution that spans the full retail space.

## 3.

### SIMPLIFYING A COMPLEX INDUSTRY: THE ROLE OF INFORMATION TECHNOLOGY

IT systems are at the heart of retail operations and hence play a central role in alleviating pressure points in the retail sector. The converse also holds true—retailers who do not manage their IT landscape effectively will find that, in time, the IT systems become part of the problem rather than components of the solution.

This is particularly true for IT systems that can significantly influence COGS in the retail sector; for example advanced planning and scheduling systems, inventory management systems and merchandizing systems. Additional systems that share a crucial role in retail operations are the promotional and seasonality management systems that, when leveraged effectively, can increase the top-line revenues for the retailer.

**There are two critical areas where IT can reduce complexity and improve results:**

1. **Functional retail areas**
2. **Data cleansing and architecture**

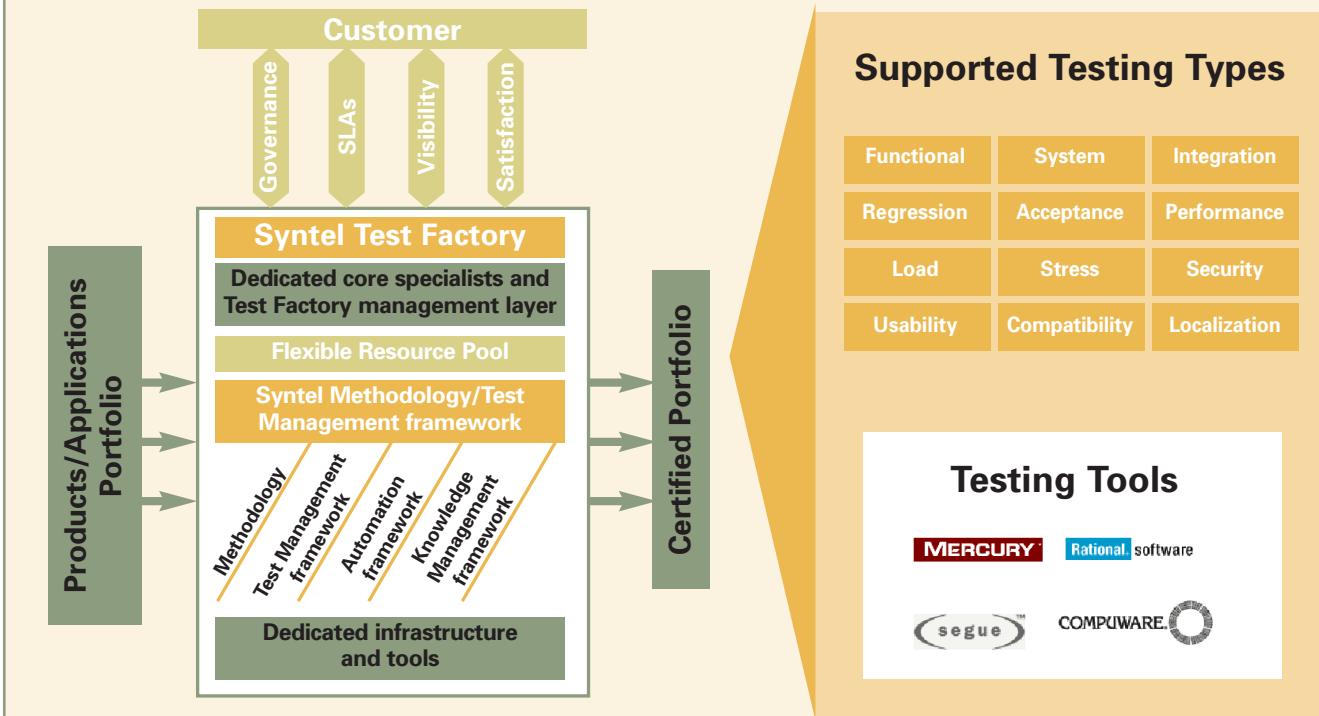
### FUNCTIONAL RETAIL AREAS

Merchandizing systems impact top-line revenues and need to be configured, customized and managed effectively for the retailer to improve its top line. To achieve this, retailers need to effectively mine large amounts of data and leverage this data to carry out effective forecasting, assortment planning, and collaboration with its suppliers so that promotions and other merchandizing activities are effective and efficient.

Supply chain systems are key from a bottom line point of view as they play a key role in getting the right product to the right place at the right time—which in turn impacts the inventory levels and the rate of flow of products through the retailer's stores, both of which are significant components of the retailer's cost of doing business.

**Figure 1: Syntel’s Dedicated Test Center of Excellence (offshore)**

**Syntel Test COE (Center of Excellence) serves as a high caliber “test factory” for clients**



**DATA CLEANSING AND ARCHITECTURE IMPROVEMENT**

Data cleansing, and thereafter, effective mining (via large data warehouses) is fundamentally important in the retail space because so much decision-making is based on data. If the data is bad, the effectiveness and efficiency of carrying out retail operations is hampered.

This becomes particularly crucial when the retailer is implementing new systems and a large data conversion effort is required—it becomes essential that the old data be effectively cleaned, re-architected and made ready in the new system, so that the business functions can make decisions effectively.

**4.**

**SYNTEL’S SOLUTIONS FOR RETAIL**

The combination of our de-bottlenecking, IntelliSourcing®, custom development, and package

implementation services enable us to fully address the IT-related pressure points for our clients in the Retail industry.

**ENABLE SPEED TO MARKET FOR POINT SOLUTIONS—REMOVE THE TESTING BOTTLENECK**

Given the complex nature of retail operations and the underlying complexity of IT systems—particularly from a functionality, fragmentation and integration point of view—systems integration becomes a challenge in this space, making speed and flexibility of adding new functionality a top priority.

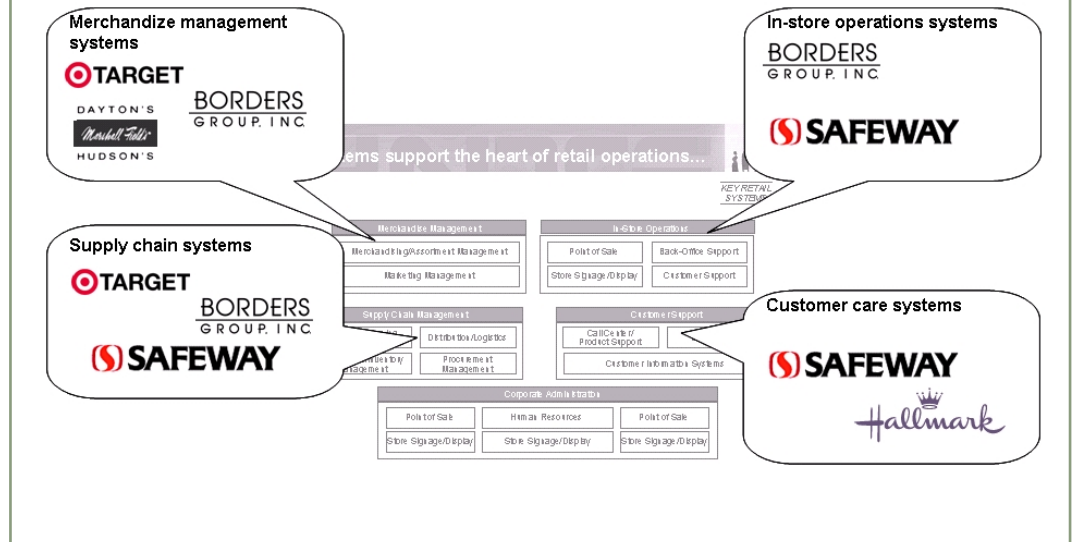
It is not surprising then that many leading retail companies find that in the entire cycle of new functionality deployment, applications testing is often a bottleneck and slows down the introduction of new services in a highly competitive marketplace.

Syntel has established dedicated Test Centers of Excellence to serve as offshore test factories for some of our key retail clients, as well as our clients in other verticals where testing is a highly intensive task (see Figure 1).

**Figure 2: Syntel's custom solutions for global retail firms**

*"We have over 2,000 person-years domain experience in retail systems."*

*The combination of our de-bottlenecking, IntelliSourcing®, custom development, and package implementation services enable us to fully address the IT-related pressure points for our clients in the Retail industry.*



**FOCUS ON CORE BUSINESS—  
DEVELOP COLLABORATIVE  
PARTNERSHIPS WITH OUTSOURCE  
VENDORS**

With such a vast amount of work required for retail IT, it is key to focus on the core business, and consider outsourcing non-core functions of the applications, such as maintenance.

Syntel has developed the *IntelliSourcing*® approach where we work collaboratively with retailers to determine which components of their IT capabilities and business processes can be outsourced to us, and which ones the retailer should continue to keep in-house, to maximize its business capabilities, while minimizing costs. Syntel is experienced in IT offshoring for retail companies so that they can focus on their core competence and yet reap cost and quality benefits from Syntel.

We are so committed to our clients' success and to our delivery of value that we often structure our services as a fixed-price contract, backed up by stringent SLAs and a best practice warranty period. In fact, more than 50 percent of our *IntelliSourcing*® engagements are structured as fixed price contracts, and are delivering high value to our customers year-on-year. For these customers, we are managing the full life cycle of their IT applications development and maintenance needs, on a fixed-price basis.

**SELECT A PARTNER THAT  
CAN DELIVER FULL SPECTRUM  
SOLUTIONS**

In addition to our *IntelliSourcing*® services, we also offer a full-range of custom development and select package implementation services. We have developed and continue to develop customized point solutions for some of the world's leading retail firms, to enable them to reduce costs and provide more integrated retail services to their clients.

*Figure 2* gives a brief overview of the kinds of point solutions we have developed for leading retail providers, across the spectrum of retail operations. Like the *IntelliSourcing*<sup>®</sup> approach, these services typically have a blended delivery model where part of the work is done onsite at our clients' facilities and part of the work is done in one or more of our global development facilities.

## 5.

### PARTNERING WITH SYNTEL

Syntel has provided outsourced IT services for over 25 years. In fact, Syntel was the first US-based firm to launch a Global Service Delivery model in 1992 and leverages this model today to deliver increased time-to-market, enhanced efficiencies, and quality improvements for a majority of its Global 2000 customers.

Syntel crafts each solution around its deep understanding of the issues facing retail firms across merchandising, supply chain, warehousing, and more. Our combined expertise in retail and several other industries give us a unique set of skills and knowledge base to help retailers succeed.

Our customer-centric approach and our ability to understand your retail business set us apart from our competitors. As you get to speak with some of our key clients, you will see that Syntel thinks first of our client's business strategy and our client's imperatives for business success. Around this understanding, we work together to become thought and implementation partners of IT-enabled components of our client's business strategy—to unlock value from IT and create IT-enabled competitive advantage.

### COMMITMENT TO QUALITY SETS SYNTEL APART

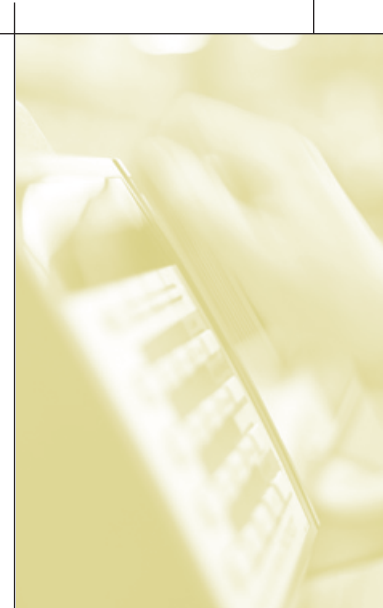
Any successful corporation understands that the quality and dedication of the people behind the processes and technology are what stands between success and failure. Quality focus and commitment

is a key characteristic that distinguishes Syntel from many other outsourced providers. This focus extends throughout the Syntel organization, and impacts its people, processes, and technology. Syntel follows the widely recognized Six Sigma methodology to continually measure and improve performance and processes. As an integral part of this methodology, it adheres to the DMAIC—Define, Measure, Analyze, Improve, Control—framework to guide process improvement.

**Syntel's Global Development Centers in India are assessed at both ISO 9001 and Level 5 of the SEI CMMI (Carnegie Mellon Software Engineering Institute Capability Maturity Model), making it one of just a handful of organizations in the world assessed at this level.** Its delivery performance is benchmarked against the highest capability standards of this model and achieving Level 5 is the ultimate recognition in the IT industry for the maturity of Syntel's software processes. **This means Syntel's solutions have been proven to deliver:**

- **Faster project timelines,**
- **Greater costs savings,**
- **Reduced risks,**
- **Increased work efficiency,**
- **Constant work process improvement, and**
- **Greater situational awareness.**

Syntel's Project Management practices are based on the Project Management Institute's (PMI) Project Management Body of Knowledge, which emphasizes communication, risk management, and leadership. Most of Syntel's Project Managers are PMI-certified, or are in the process of pursuing certification, and all project managers are leaders empowered by Syntel to act in the best interest of the customer's success.





# about **SYNTEL:**

Syntel (Nasdaq:SYNT) is a leading global provider of integrated information technology and knowledge process services. Syntel helps global enterprises evolve the core by leveraging automation, scaled agile and cloud platforms to build efficient application development and management, testing and infrastructure solutions. Syntel's digital services enable companies to engage customers, discover new insights through analytics, and create a more connected enterprise through the internet of things. Syntel's "Customer for Life" philosophy builds collaborative partnerships and creates long-term client value by investing in IP, solutions and industry-focused delivery teams with deep domain knowledge.

To learn more, visit us at [www.syntelinc.com](http://www.syntelinc.com)

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