

An Oracle Commerce White Paper  
June 2012

# Oracle Commerce Solution Overview

## Introduction

The Oracle Commerce Solution unifies the leaders of cross-channel commerce (Oracle ATG Commerce) and customer experience (Oracle Endeca) to deliver best-in-class commerce applications focused on personalized user experiences, business user enablement, and scalability to meet the evolving demands of commerce.

Development of the Oracle Commerce Solution is in direct response to the challenges that retailers face. Their customers now expect relevant, personalized, and consistent experiences across the multiple touchpoints they engage with to make purchase decisions. Retail organizations are then challenged to manage and scale consumer-driven, cross-channel experiences while meeting the goals of their business. Achieving this has proven problematic, as technology limitations have forced retailers to cobble siloed tools and systems together to support their online channels, resulting in lackluster customer experiences and missed targets.

As a result of these market needs, three core values drive the development of the Oracle Commerce Solution:

- Delivery of relevant experiences to every customer
- Business control, and
- Strength of platform

This whitepaper details the three core values of the Oracle Commerce Solution and how it provides what no other combination of technologies on the market can: a unified, end-to-end commerce solution that delivers more targeted, lucrative cross-channel experiences while simplifying management, reducing total cost of ownership, and accelerating time to value.

## Overview: The Solution

The Oracle Commerce Solution unifies the ATG Commerce and Endeca Customer Experience platforms. Prior to acquisitions made by Oracle, ATG and Endeca had unique strengths and capabilities. The heritages of ATG and Endeca have informed the roles of each technology in the unified Oracle Commerce Solution. The Solution and workflow includes the following:

The Data Integration Module provides a streamlined, out-of-the-box solution for unifying data traditionally housed in separate Oracle ATG Commerce (ATG) and Oracle Endeca (Endeca) systems. Once this data has been integrated, the strengths of ATG and Endeca are leveraged to create, manage, and optimize cross-channel experiences.

The Oracle Commerce Solution leverages ATG for creating and defining the sites, data, and content that drives customer experiences. These capabilities include creating and managing multi-site and multichannel infrastructures, content creation, collection of session data, management of the product catalog, pricing, creation of promotions and offerings, processing of transactions, management of customer profiles and segments, and the creation of personalization strategies.

Once this data and content is defined, the Solution leverages Endeca for the placement, contextual delivery, and optimization of cross-channel customer experiences. These capabilities focus on leveraging data and content from ATG and other sources to scale dynamic cross-channel experiences controlled by the business user. Page management and layout, content placement, and the dynamic delivery of products, content, personalization strategies, and contextual merchandising takes place at this customer experience layer.

How the unified Oracle Commerce Solution provides a unique value to retailers is described in the following three sections.

### I. Delivery of Relevant Experiences to Every Customer *a fundamentally different approach*

The Oracle Commerce Solution allows organizations to engage more customers by transforming how cross-channel experiences are created and delivered. Taking a fundamentally different approach, the Solution begins with the customer and all relevant data to trigger dynamic experiences in a scalable model. This approach results in more engaging, personalized user experiences while minimizing manual effort for the business.

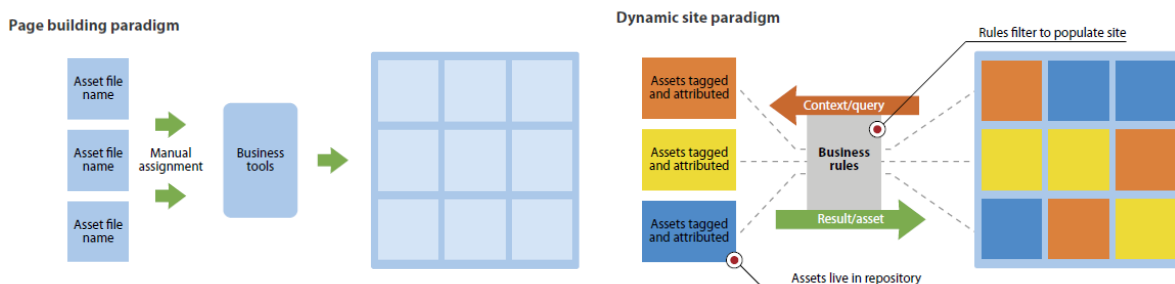
The Oracle Commerce Solution allows retailers to get closer to their customers with relevant experiences, based on the following:

#### Contextual Experience Delivery

Instead of predicting what customers will want and requiring IT to manually build static pages and paths, the Oracle Commerce Solution enables organizations to dynamically assemble and scale an infinite number of personalized experiences.

Business users get a site up and running by setting up a single default experience. This default experience then dynamically adapts to each customer based on their context. Context can be determined by any combination of the customer's signals and data, including the touchpoint they're using, how they arrived at a site, any search or filter selection(s) they've applied, and information from their customer profile. Because the Solution owns the entire site presentation, "relevance" is not constrained to one element of a page; relevance is delivered as a collective experience. Every element of these relevant experiences adapts to customers at run-time based on any number of ways they may choose to interact. Product assortment, merchandising, personalization strategies, promotions, recommendations, and page layout are dynamic and adapt according to each customer's intent.

These granular experiences can scale to every customer because of the dynamic delivery engine at the core of the Solution, which is purpose-built for commerce. While other solutions have expertise in managing and publishing static elements of an experience, the Oracle Commerce Solution has the power to assemble and scale collective experiences that are inherently dynamic in nature. Assembling and delivering experiences occurs when the engine uses the customer's context at every click to broker relevant content and data from ATG repositories and any adjacent systems at run-time. This contextually-relevant experience is influenced by any applicable business rules set by the merchant to return an experience ideal for both the customer and retailer (covered in section two). This approach ensures that relevant experiences are delivered to every user because experiences trigger dynamically and adapt in real-time, guaranteeing an engaging dialog along the customer journey, and increasing the likelihood of a conversion.



Source The Emergence of Customer Experience Management Solutions Forrester Research August 2011

customer data. These customizable personalization strategies leverage the most granular data available to make customer experiences more engaging across all touchpoints, and are flexible enough to work together and be influenced by the vast number of ways a customer might choose to interact.

For example, if a shopper is anonymous, their intentions come in to focus as they search and navigate. The Oracle Commerce Solution leverages the default experience set up by the merchant and uses the visitor's signals to trigger a more relevant experience. As the visitor explores the site, context-driven merchandising appears to make the experience more targeted, and the platform begins collecting session data to build a detailed customer profile for later sessions. Dynamic triggering of in-context recommendations allows retailers to scale the delivery of always-relevant up-sells and cross-sells to personalize the experience and increase the retailer's ability to drive conversions and order values for every transaction. To further engage specific customers based on their actions, setting up scenarios will trigger targeted content when shoppers follow a specific path(s) through the site.

The Solution allows retailers to learn more about customers over time by tracking their behavior to ultimately deliver more granular, valuable experiences. If a customer has a richer profile and history, their information is leveraged in conjunction with their on-site context at run-time to dynamically deliver greater relevancy and personalization on top of the default experience. The more customer information available, the more granular and targeted the experience can become. To manage customer loyalty and deliver specialized experiences, merchants have simplified control to group like customers in to segments to deliver a more targeted experience. Merchants may want customers who are defined as "big spenders" to receive different featured products than "bargain shoppers." They may deliver different promotions to customers living in the Pacific Northwest than those living in Florida. The Oracle Commerce Solution provides merchants with a simplified way to manage and scale personalization with the flexibility to create, customize, and layer strategies effectively.

Building upon the default experience, the degree that a retailer can personalize experiences to is dependent on the availability and quality of customer and product data. For more detail on the content and data the Oracle Commerce Solution can leverage to drive these experiences, see section three of this whitepaper.

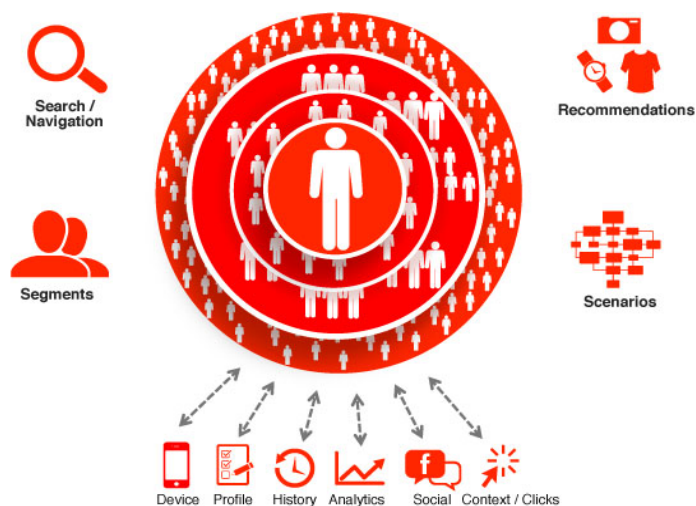


Figure 2. The Oracle Commerce Solution leverages the most granular data available to layer personalization strategies, wherever consumers are.

## Channel-Agnostic Delivery

Customers interact with multiple touchpoints to make a single purchase, but are often faced with a frustrating, inconsistent user experience as a symptom of siloed or poorly integrated technologies. Similar to how customer experiences are assembled based on context, the Oracle Commerce Solution takes a revolutionary approach to multichannel delivery. The Solution has a presentation-agnostic API that serves up consistent, optimized experiences to any digital channel that a retailer may have. This API centralizes and brokers all content assembly logic, personalization strategies, and any applicable business rules, serving relevant experiences to the requesting digital channel(s). This approach simplifies management while enhancing performance and delivering a consistent experience everywhere customers engage. With the same core data, content, and business rules powering cross-channel experiences, experiences are seamless, sales are expedited, and delivery management is streamlined.

## II. Granular Business Control

*total hands-on control over every aspect of the experience*

The Oracle Commerce Solution features robust business user tools that give merchants the flexibility to influence and optimize every customer experience. The Solution puts power in hands of the merchant to efficiently manage backend data and impact the cross-channel customer experience with the most complete set of business user tools on the market. Unifying many capabilities in to a single intuitive solution, merchants can directly impact revenue through effective promotions, personalization, merchandising, and page management, and take complete control over their product catalog and customer data.

The Solution grants hands-on control to the business user with:

### Merchant-Inspired Tools

The Oracle Commerce Solution provides merchants with simple to use tools inspired by their use cases and needs to work faster and execute business plans more efficiently. With a single solution, merchants have complete access to all products and customer data, and can centrally create and optimize the cross-channel infrastructure and customer experience without requiring IT engagement. This includes site-definition, product-related capabilities like catalog and category management, pricing, promotions, and merchandising strategies experience management features like layout, content creation, page management, and integrated intelligence, and customer-related capabilities like creating and managing customer profiles and segments, personalization, and targeting strategies.

Merchants have hands-on control over their site(s) and every level of their catalog. A business user can define a new site, determine the layout, and create and/or leverage all necessary content and components to create a customer experience. In addition to setting up the core site infrastructure, merchants also have total control over creation and management of their product catalog. They can control categories and products, create and combine catalogs or sub-catalogs, modify hierarchies, create bundles, and manage pricing and discounting with a single toolset.

Business users can also manage all aspects of merchandising with an intuitive, highly-visual application, allowing them to view the pre-production site through the lens of a customer. Merchants can easily drag and drop content and products, edit content in-line, quickly apply updates to multiple assets, create and stack promotions, and preview layouts for future dates using a Flex-based tool. For a framework and insight in to best practices, Oracle Commerce reference applications for web and mobile environments allows retailers to

get up and running quickly by showcasing of out-of-the-box features and best practices for coding standards.

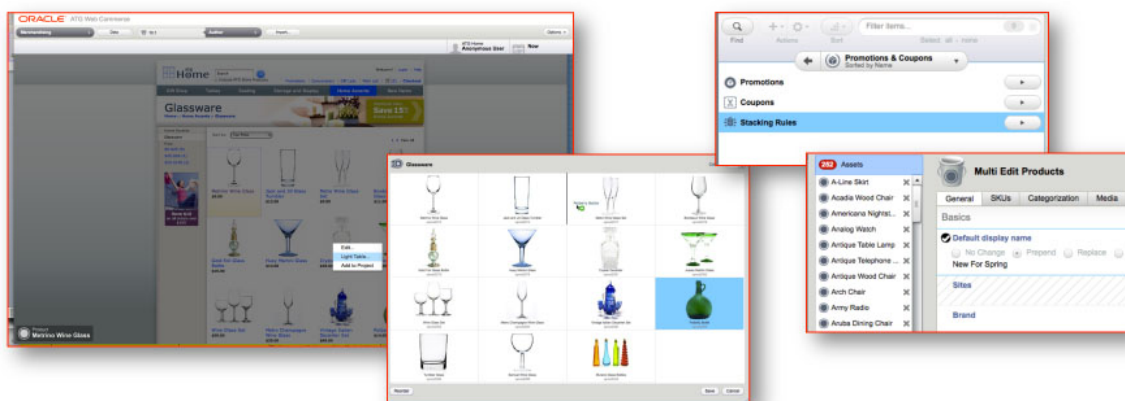


Figure 3. The Oracle Commerce Solution delivers robust, visual merchandising tools for simplified cross-channel management.

## Balance of Automation and Manual Control

These experiences convert more frequently based on the balance of automation with hands-on merchant control. Because of the power of the engine at the core of the Oracle Commerce Solution, business users can automate always-relevant experiences to trigger for every unpredictable customer path, using context to personalize the default experience. While experiences must be customer-centric, they must also take in to account the goals of the business and the knowledge of the merchant. The Solution gives retailers the flexibility to influence experiences at the most granular level to get the greatest value from every customer experience. This balance allows retailers to scale better experiences while reducing the complexities of managing them.

For the majority of customer interactions, automation is the most effective way to scale experiences that ensure relevance and engagement. With the Oracle Commerce Solution, a single default experience set up by a business user can dynamically render an infinite number of unique, personalized experiences. Within this automated process, merchants have the ability to apply business rules at global and granular levels, overriding the automated default experience for high-value opportunities.

The Solution can scale experiences by leveraging dynamic business rules. A dynamic business rule specifies how to ask the engine for items to promote, but not necessarily what the specific items are. For example, a merchant may know that a specific brand of product carries a greater margin, and create a one-time global rule to boost that specific brand to the top of all product listings and promotions, regardless of where the customer is within the site. As shoppers explore the site, they continue to see relevant results because appropriate rules are in place. And, as the data set changes, new and relevant records are returned by the same dynamic business rule. The rule remains the same, even though the promoted records may change. Likewise, the merchant may infer that user reviews dramatically increase a customer's likelihood to convert in a specific

category, and set the default relevancy to top rated products, dynamically powered by live user review updates.

While automating relevant experiences can reach a broad swath of consumers, the human element of the customer experience is the most critical. Merchants are experts in their respective products and customer bases, aware of what's involved with running a retail business in a way no engine or algorithm can. Certain products, categories, and promotions contribute a disproportionate value to any retail business, and merchants need the flexibility to impact these experiences quickly and where it matters most. To optimize high-value or low-performing opportunities, the Solution gives merchants the tools to impact the experience. Prebuilt, pre-tested components allow merchants to quickly create new landing pages without IT involvement for popular search terms, products, categories, and campaigns. Merchants have a simple visual interface to override default relevancy strategies to hand-place promoted products for specific categories. More substantial updates can be made to give groups of users a specific experience, like applying a specialized page layout, merchandising strategy or banner promotion to users coming from Google or a social network.

This balance allows retailers to manage by exception; focusing their efforts on opportunities that will have the greatest impact to the business. The Oracle Commerce Solution delivers a complete, flexible solution to give merchants autonomy to optimize the revenue that they are ultimately accountable for, and for IT to focus on more strategic projects instead of being constrained by technology and a backlog of manual updates.

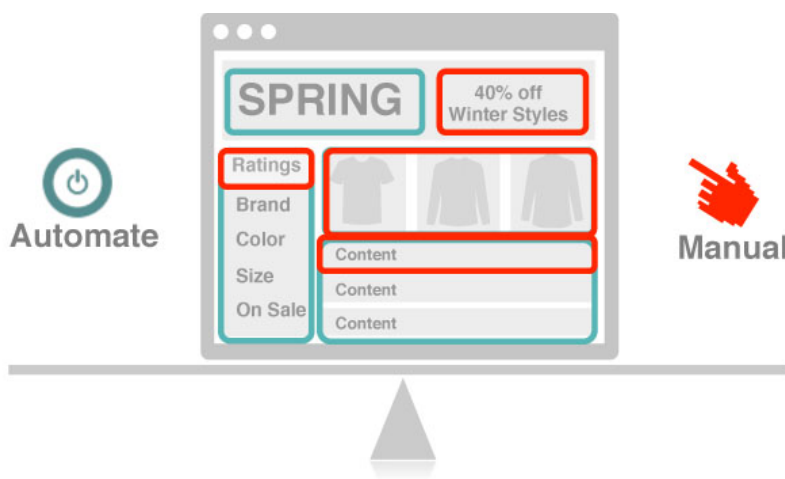


Figure 4. The Oracle Commerce Solution is focused on balance control: the custom mix of automation at scale, with manual merchant control.

### Closed-Loop Intelligence

For online retailers, determining where to focus efforts is a challenge. They struggle to interpret and connect separate reports and analytics sources, but visibility and insight is only part of the problem. The Oracle Commerce Solution allows retailers to close the loop with an application that centralizes and connects multiple analytic and data sources to provide a comprehensive, real-time snapshot of the performance of their online business. The Solution does not replace traditional Business Intelligence tools or Web analytics reporting. Instead, it leverages and combines all existing customer, product, and usage analytics and data sources in to a visual dashboard to provide business users with actionable insight, and a complete 360-degree



view of the business in context of customers, channels, merchandising effectiveness, and product performance.

Having immediate visibility to all relevant information provides users with the ability to find out why experiences are performing or not. The Oracle Commerce Solution allows merchants to find the intersection between their experience and intuition and the facts to deliver the most optimized experiences possible. Merchants can navigate the dashboard to uncover answers to questions they weren't prepared to ask, and find relationships between data sets that would have previously been siloed or required a manual exercise with weeks of waiting for a report. The Solution closes the loop by indicating explicitly where value is being left on the table, and gives the merchant the ability to impact the customer experience immediately based on the latest, most comprehensive data available.



Figure 5. With Oracle Commerce Business Intelligence, merchants can close the loop with actionable insight from a combination of existing data sources in real-time.

### III. Strength of Platform *architected for performance and scalability*

Rigid technology can paralyze a retailer's growth. They are often forced to integrate many separate systems together to run their business, with each technology being driven by a different company roadmap, controlling different elements of the customer experience, or running a siloed touchpoint. Outside of the core commerce platform, retailers need to integrate data and content coming from disparate sources in to the customer experience, but integration of this data is an expensive, manual process. To alleviate these issues, the Oracle Commerce Solution is architected as an open, extensible platform that can integrate with any stack; purpose-built for tight frontend and backend integration controlled with a single solution. This structure allows Oracle to provide a lower total cost of ownership than other combinations of separate products and solutions.

The Oracle Commerce Solution is architected for performance and scale based on the following:

### Data Anywhere Architecture

Delivery and optimization of cross-channel experiences wouldn't be possible without constant access to multiple data and content sources. The Oracle Commerce Solution has the unique strength to automate processing of large volumes of diverse data to deliver more engaging experiences at a lower cost to the business. With an extensible data ingest layer, the Solution unlocks value from data wherever it lives, allowing retailers to extract more value from investments across their technology ecosystem and centralize it in a single index.

The flow of data and content from disparate systems in to the Oracle Commerce Solution is an ongoing process, as retail product and customer data changes dramatically over time. Systems that retailers use produce structured and unstructured content, coming from sources like homegrown systems, an ERP or PIM, web analytics data or user reviews, and media coming from a DAM, blog, or video platform. As data and content from these systems is created and modified, the Solution continually collects and aggregates it. As it is centralized, the engine finds relationships between different data points and connects them at run-time to be rendered in the customer experience, influenced by any applicable business rules. Centralizing multiple data sources creates better customer experiences: virtual product data and virtual customer data come together to create a complete picture of who the customer is and what they want, delivered to any touchpoint.

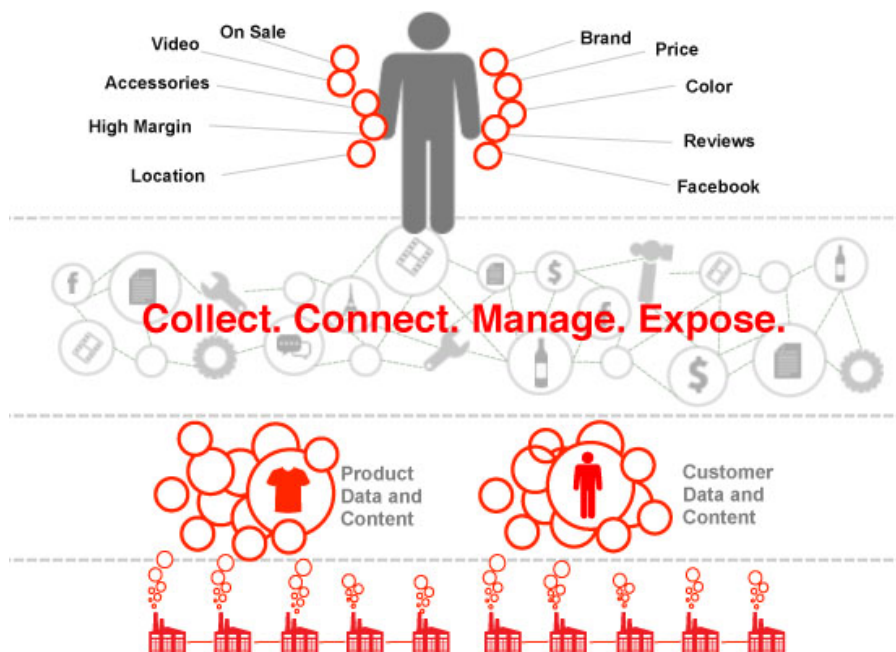


Figure 6. With the Oracle Commerce Solution, data and content are collected, connected, managed and exposed in a single, underlying index.

## Operational Efficiency

Architected for operational efficiency, the Oracle Commerce Solution has ability to process data and deliver dynamic experiences at unparalleled scale. Powering the most demanding environments on the web, the Solution handles large and complex catalogs, processes volatile data from multiple sources and leverages it at run-time, and delivers advanced custom experience demands like custom catalog views and pricing structures.

In addition to running a stable, performant environment, retailers must invest in technology that grants them agility to scale and grow their business. The Oracle Commerce Solution provides retailers with the flexibility to efficiently expand in to multi-channel, multi-site, multi-brand, multi-language, and multi-currency environments. The Oracle Commerce Solution is architected for operational simplicity, so that one index and a single business user application drives consistency across touchpoints, even as the business expands. The Solution removes the complexities of site expansion and management, enabling business users to create new properties with prebuilt, reusable components that can be shared between sites and touchpoints. With this approach, retailers can quickly launch new branded sites, enter new markets, and expand in to new channels. Because the Solution unifies frontend and backend controls, retailers can share components such as customized customer segments and personalization strategies, carts, product catalogs, and promotions across sites and environments.

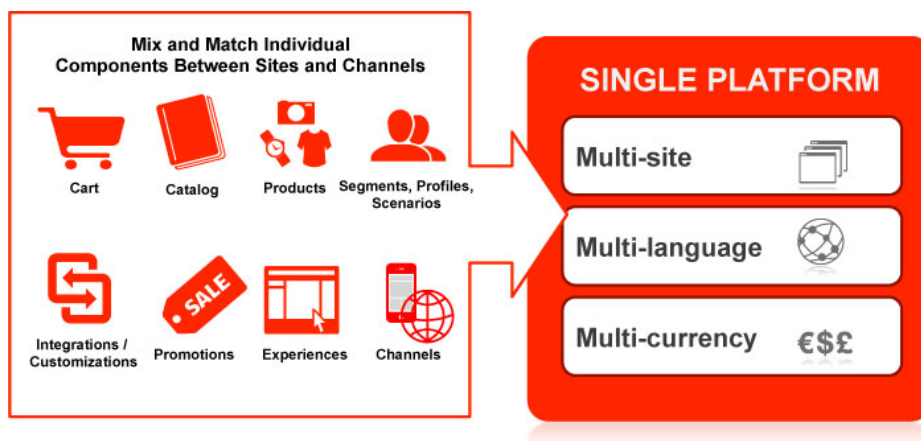


Figure 7. The Oracle Commerce Solution allows business users to take control of complex management and expansion with pre-built, re-usable components for multi-site, multi-language, and multi-currency environments.

## Reduced Time-to-Innovation, Cost of Ownership

Built to scale, the unified end-to-end Oracle Commerce Solution reduces management and upgrade costs. The Solution delivers additional time-cost savings from an administration and experience management perspective, accelerating time to value.

The extensible architecture and out-of-the-box Data Integration Module allows retailers to gain more value from other ecosystem technologies, and automate many manual tasks associated with system integration. Once data and content from across the organization is integrated, the Solution architecture and flexible business tooling allows retailers to innovate more quickly and stay agile. Prebuilt components and robust tools allows merchants to create, manage, and optimize cross-channel customer experiences efficiently and regularly, freeing IT to work on strategic projects. Prebuilt components empower business users to expand in

to multi-site environments and new channels quickly, leveraging and sharing what has already been built in to a new site or touchpoint-optimized experience. Customized catalogs, customer profiles and segments, personalization strategies, carts, and promotions can be shared across multiple sites and channels, without the need or delay to rebuild new environments from scratch.

Because the Oracle Commerce Solution modularizes platform and component customization, custom work can be preserved through future upgrades. This approach saves time and service dollars, gives retailers greater flexibility to leverage the latest technology, and protects investments for future use.

### Aligned with the Oracle Product Stack to Achieve “Endless Aisle”

For customers using other Oracle products, the Oracle Commerce Solution enhances the ability to support connected interactions across channels, and centralize management at a lower cost of ownership. The Oracle Commerce Solution allows customers to leverage and enhance other commerce products to create an endless aisle, where consumers can purchase anywhere and fulfill anywhere. This means that inventory and experiences can be managed effectively and holistically, leveraging complimentary commerce technologies like Oracle Retail products, Oracle WebCenter, Siebel, Oracle Product Information Management (PIM) and others. Oracle allows customers to assemble a custom assortment of technologies based on their needs, enhancing the Oracle Commerce Solution while providing customers with insight and control to streamline operations and achieve their business goals.

## Conclusion

The Oracle Commerce Solution changes the game for online retail, providing what no other combination of products on the market can: a unified, end-to-end commerce solution that delivers more targeted, lucrative cross-channel experiences while simplifying management, accelerating time to value, and reducing total cost of ownership. With expertise from market leaders ATG and Endeca, Oracle provides a Center of Excellence for commerce; with research and development focused on delivering a scalable platform and aggressive roadmap that allows retailers to innovate, grow, and leverage their existing investments.

## Contact Us

The Oracle Commerce Solution team is committed to developing technology partnerships focused on retail needs and products that deliver a faster time to value. For more information, visit [www.oracle.com/webcommerce](http://www.oracle.com/webcommerce).



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