

# SMART SHOPPING: DIGITAL TRANSFORMATION STRATEGIES FOR RETAIL

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 Alibaba Cloud

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Digital Transformation

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# INTRODUCTION

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Retail is going through a period of massive change. Stores are becoming more focused on providing an experience alongside selling products as people increasingly opt to shop online for convenience, ease and speed. In fact, e-commerce is the world's fastest-growing sales channel<sup>1</sup>, expected to make up 17.5 percent of all global retail sales by 2021.<sup>2</sup>



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**IN THIS EBOOK WE'LL  
COVER STORIES  
OF BEST PRACTICE  
IN RETAIL DIGITAL  
TRANSFORMATION**

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In addition to this direct impact on revenue, data and digital processes are also being used by retailers to enhance their logistics and supply chains, while the increasing emergence of omni-channel is breaking down the online/offline divide between physical and digital stores. This has the benefit of creating a better, more seamless experience for customers, potentially increasing both loyalty and sales.

This ebook will discuss key ways in which digital transformation is affecting the retail industry. It will share stories of best-practice from bricks and mortar and online retailers that Alibaba Cloud has helped with their digital transformation. It forms part of a series of ebooks from Alibaba Cloud that deep-dive into digital transformation in retail. Other books focus on the impact of data and how key Alibaba Cloud products can help, to learn more visit

<https://resource.alibabacloud.com/whitepaper>.

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## FOUR STEPS TO DIGITIZE RETAIL OPERATIONS

1. Assess
2. Plan
3. Adopt
4. Optimize

# SCENARIO: DIGITIZE THE IN-STORE EXPERIENCE

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The fundamental changes driven by digital transformation are based on data and use enhanced analytics and new technologies such as cloud computing and machine learning. In-store, this can impact what is on the shelves and how the store is laid out, right through to how sales assistants interact with customers, all geared towards making every square meter of floorspace work as hard as possible for your business.



**CUSTOMER DATA  
GATHERED ONLINE  
CAN INFLUENCE THE  
IN-STORE EXPERIENCE**

## DATA-DRIVEN DECISION MAKING

Having a good understanding about what your customers' habits are and knowing what they are looking for when they enter your store can help to convert browsers to buyers. By paying attention to trends and tracking purchases made against different data points you are able to take strategic decisions that are based on behaviors, not assumptions. This means that your inventory management and marketing can be more effective, boosting your business and driving sales.



**Your inventory management and marketing can be more effective, driving sales."**

Customer data that is gathered online and in-store can also start to influence the in-store experience, such as how items are laid out, or altering the store layout based on footfall. For example, using Ling Shou Tong, Alibaba's integrated system and mobile app, retailers can better track their inventory and receive recommendations about what products are proving most popular, so they can stock what is selling best at that time. Over 600,000 outlets in Mainland China – about 10% of the country's convenience stores – are currently benefitting from the technology.<sup>3</sup>

## OMNI-CHANNEL EXPERIENCE

Better integration of online and offline in-store helps customers to have a more seamless shopping experience.

For example, assistants armed with tablets can show a broader range of stock, help customers to locate products in the exact size or style from across their network, or arrange home delivery of purchases once they have been made. Similarly, enabling mobile payments can make it easier for shoppers to pay for the products they want.

Data can also help assistants to offer increasingly personalized services and recommendations in-store, based on an improved understanding of different customer segments' behaviors.

By providing a high-quality omni-channel shopping experience for customers, retailers can create a more seamless, frictionless offering and encourage shoppers to make purchases and increase the amount they spend.



### Customer Story: Hema

Alibaba operates a grocery prototype supermarket called Hema, and mobile is central to creating an omni-channel experience there. Shoppers can use the Hema app to scan an item's barcode and find out more information about the product, such as its price and origin, and even recommendations about other items that could go well with their purchase.

The Hema app is linked to shoppers' Alipay accounts – Alibaba's mobile payment platform – so when they've finished shopping, they can easily check out and pay for their items direct with their smartphone.

Of course, shoppers don't need to visit the physical store to make purchases. They can buy online and, as long as they live within 3km of the store, will receive their delivery in 30 minutes. This speed is enabled thanks to Hema's 24-hour fulfillment centers.

There are currently over 100 Hema stores throughout China, demonstrating Alibaba's New Retail concept and helping other retailers to see the potential that joined up mobile, online and in-store experiences, powered by technology, can provide for customers.<sup>4</sup>

Alibaba's CEO, Daniel Zhang, describes Hema as "a showcase of the new business opportunities that emerges from online-offline integration".<sup>5</sup>

## KEY PRODUCTS

[Image Search](#) – An intelligent image search service with product search and generic search features to help users resolve image search requests.

[OpenSearch](#) – Provides help with business scenarios like online shopping, food delivery, travel bookings, video websites, and office management systems.

[E-MapReduce](#) – An all-in-one enterprise-ready big data platform that provides cluster, job, and data management services, it is ideal for large scale online promotion scenarios.

[QuickBI](#) – Allows you to perform data analytics, exploration, and reporting on mass data with drag-and-drop features and a rich variety of visuals.



# SCENARIO: IMPROVE LOGISTICS AND DELIVERY



ALIBABA CLOUD'S  
BIG DATA PRODUCTS  
CREATE SMARTER  
SUPPLY CHAINS

Smarter supply chain management and improved last mile delivery can have a huge impact on both business efficiencies and customer satisfaction. Simply providing real-time access to information for both buyers and sellers can help to improve the efficiency of delivery services, ensuring that customers' time isn't wasted, and their expectations are exceeded.

Supply Chain Management software revenue is predicted by Gartner to exceed \$19 billion by 2021, as software as a service (SaaS) grows. It allows businesses to take advantage of machine learning, Internet of Things (IoT) and other new technologies. Alibaba Cloud's big data products make it easy to process massive amounts of data and provide intelligent recommendations that help supply chains to get smarter, including improvements to order fulfillment, warehouse sorting and loading merchandise and last mile delivery.

CAI  
NIAO 菜鸟

## Cainiao Story: Smart Supply Chain

Cainiao Network is Alibaba's logistics data platform that provides real-time access to information for both buyers and sellers, enabling them to improve the efficiency of their delivery services.

Stakeholders are able to access relevant information from the nine trillion pieces of data that are processed every day through a public cloud portal called link. Machine learning models and algorithms provide delivery services with methods to improve efficiencies along the entire supply chain, such as best route algorithms, enabling 24-hour domestic delivery and 72-hour international delivery. A global network monitors international packages and a last-mile system shows packages' real-time locations, so customers can quickly receive the goods they are expecting or reschedule deliveries to a more convenient time. Cainiao's on-time delivery rate stands at 98 percent.



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**CAINIAO'S  
FULFILMENT  
NETWORK HAS  
GROWN BY 170  
PERCENT USING  
CLOUD TECHNOLOGY**

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Warehouses and domestic fulfillment centers use AI-enabled smart supply chain development tools to track supply and demand, so stores can anticipate a shortage in products that they stock and adapt, meaning that customers in-store are able to make the purchases that they want.

Cainiao's use of cloud technology has not only made its business and many others more efficient, it has also improved customer satisfaction. Its fulfillment network has grown by 170 percent year-on-year and it estimates that leveraging state-of-the-art cloud technology has helped it save 260 million hours a day in delivery time.<sup>6</sup>

### KEY PRODUCTS

[Machine Learning Platform for AI](#) – An end-to-end platform that provides various machine learning algorithms to meet data mining and analysis requirements.



# SCENARIO: CREATE AN END-TO-END EXPERIENCE

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**Double 11, Alibaba's global shopping festival, is probably the best example of physical and digital marketing, community, frictionless mobile shopping and super-fast logistics and delivery coming together to create a seamless end-to-end experience for customers. Instead of a chore, shopping becomes delightful for consumers and the process is highly effective and profitable for retailers.**

Alibaba Cloud developed elastic computing products to support the huge demands placed on its servers to ensure that sites could deal with sudden traffic spikes and handle large numbers of concurrent users.

Products such as Content Delivery Network and NAT Gateway increase the response rate, so users can enjoy excellent network performance and provide their shoppers with fast and smooth browsing and a better online shopping experience.

In 2018's 11.11 festival, this facilitated over \$30.8 billion of Gross Merchandise Volume on Tmall and over 491,000 orders/second at peak.



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**IT IS VITAL THAT  
CUSTOMERS TRUST  
YOUR SITE TO MAKE A  
TRANSACTION**

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Security is another key factor in providing a high-quality end-to-end experience for customers. When buying online, it is vital that they are able to trust your site enough to make a transaction. Alibaba Cloud provides comprehensive security solutions for websites and apps, including Anti-DDoS protection, Web Application Firewall, and Managed Security Services to ensure that data stays safe and sites don't suffer from costly outages.

When the end-to-end experience is high quality, frictionless and enjoyable for customers, it encourages increased loyalty, meaning stores are more likely to benefit from increased customer lifetime value as people opt to shop with them more frequently and spend more.



## Customer Story: Pacific Coffee

Pacific Coffee is a US-style coffee shop originating in Hong Kong that wanted to provide an end-to-end experience for its customers that would help its offering to stand out in the crowded market.

The business decided to base its operations in the cloud, in part so that its campaigns could have the availability that they needed to impact the customer experience. Alibaba Cloud's elasticity and scalability meant that even during sales campaigns Pacific Coffee's website was available.

Being cloud-based allowed the group to create a new application that dramatically enhanced its customers' experience in-store, and reminded them about the brand at other times of the day.

The new app could accept mobile payments and keep track of membership rewards, so the experience of paying was frictionless.

Customers are rewarded for their loyalty and their preferences were tracked, so Pacific Coffee knows what drinks are popular and which marketing campaigns are having an impact amongst specific segments of its target audience.

The new app provides a bridge between the online and in-store customer experience, spanning mobile payments, loyalty points and gives the brand's marketing team the ability to serve online campaigns that are personalized.

### KEY PRODUCTS

[Content Delivery Network](#) – A high-performance content delivery network supporting live-streaming, site acceleration and on-demand streaming for users around the world.

[NAT Gateway](#) – A public Internet gateway for flexible usage of network resources and access to VPC.

[Anti-DDoS](#) – Protects your business from loss of income and users as well as reputation damage caused by potential DDoS attacks.

[Web Application Firewall](#) – WAF secures your core business data and prevents server malfunctions caused by malicious activities and attacks.

# HOW ALIBABA CLOUD CAN HELP

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## SMART AND COMPREHENSIVE PRODUCTS AND SERVICES

Alibaba Cloud offers a diverse range of cloud services to meet various business scenarios for e-commerce companies, allowing customers to focus on developing and optimizing their business. This spans everything from using Enterprise Internet Architecture to transform traditional retail enterprises' IT Architecture to using big data and artificial intelligence to promote the transformation retail offerings.

## AUTOMATED OPERATIONS AND MAINTENANCE

Our cloud platform includes automated management capabilities to ensure the high availability of e-commerce business applications and reduce operation and maintenance risks.

## FLEXIBLE SERVICE CAPABILITY

Alibaba Cloud's services are flexible so can quickly and easily scale up to meet the demands placed on sites and infrastructure and cope easily with the pressures of high concurrency. Alibaba Cloud's technology powers Alibaba's annual shopping festival, 11.11, ensuring that \$30.8 billion Gross Merchandise volume was successfully processed by Tmall in 24 hours in 2019.<sup>7</sup>

## SAFE AND RELIABLE PROTECTION SYSTEM

Alibaba Cloud's Cloud Shield provides a comprehensive security solution for e-commerce.

To learn more about how your retail and e-commerce operations can benefit from digital transformation visit

[www.alibabacloud.com/solutions/retail](http://www.alibabacloud.com/solutions/retail).



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MERCHANDISE  
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PROCESSED BY TMALL  
IN 24 HOURS IN 2019**

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# CONCLUSION

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**As one of the world's biggest retail commerce companies, Alibaba has completely changed the game in China.**

As the examples in this ebook demonstrate, Alibaba spearheads a new form of retail, merging the best of online and brick-and-mortar retail into an omni-channel consumer experience. Alibaba is in the midst of revolutionizing traditional supermarkets and shopping malls to support smartphone-powered digitized in-store shopping experiences, changing how consumers shop for everything from groceries to cars.

Perhaps the best thing about getting involved in this transformation is that Alibaba Cloud's products are scalable and flexible, geared to support businesses of all sizes with their e-commerce and retail sales.



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## ABOUT

Established in September 2009, Alibaba Cloud is the cloud computing arm of Alibaba Group and develops highly scalable platforms for cloud computing and data management.

It provides a comprehensive suite of cloud computing services available from [www.alibabacloud.com](http://www.alibabacloud.com) to support participants of Alibaba Group's online and mobile commerce ecosystem, including sellers and other third-party customers and businesses.

Alibaba Cloud is a business within Alibaba Group which is listed on the New York Stock Exchange (NYSE) under the symbol BABA.

[www.alibabacloud.com/contact-sales](http://www.alibabacloud.com/contact-sales)