

# Power Real-time Infrastructure for eCommerce with the X Platform™

## Retail Has Changed

Online buying behavior is rapidly shifting. Recent reports show that 51% of shoppers prefer online shopping to traditional retail, and the market is expected to increase to \$523 billion by 2020.<sup>1</sup> Further, loyal online customers spend 50% more than new customers, proving the higher the customer retention the greater the revenue.<sup>2</sup> The capabilities of eCommerce platforms must be more broad than ever and encompass a wide range of crucial functions. For example:

- More than a third of Amazon's business is generated through real-time engagement through their recommendation engines.<sup>3</sup> Omni-channel experiences are key and customers want to dictate when, where, and how they engage.
- Curation is critical. Gen Z have an 8-second filter. Options are seemingly limitless but time is not.<sup>4</sup> For Millennials and Gen Z, time is important and loyalty is based on where time is best spent.

Retailers must solve these urgent problems in order to stay competitive and survive. Neeve Research provides the robust application platform every business can afford in order to remedy these concerns.

## Real-time Engagement Is Here

Providing a consistent, holistic, and personalized shopping experience in an omni-channel environment requires the collection of the right type of customer data and the removal of silos, leveraging supply chain, social, customer, point-of-sale & web analytics data.<sup>5</sup>

Shoppers want to feel that retailers understand their needs without being intrusive. eCommerce solutions must generate customized experiences in microseconds, leveraging multiple data streams and providing personalized dynamic comparative pricing in real-time. Determining customer loyalty discounts, understanding which offers are most appealing, and addressing if a product is suitable for a specific demographic are examples of data leveraged to provide a personalized customer experience.

Providing real-time engagement is key to digital transformation. Conversational and new types of commerce require fast and predictive analytics enabled by AI/ML (Artificial Intelligence/Machine Learning). Fraud detection must also be in real-time to prevent revenue loss.

These real-time requirements demand flexibility and faster deployment capabilities achieved by the X Platform™.

<sup>1</sup> *Survey Shows Rapid Growth in Online Shopping – WSJ*

<sup>2</sup> *5 Ways to Increase Customer Loyalty | FiveStarts INSIGHTS*

<sup>3</sup> <https://econsultancy.com/blog/66055-amazon-and-the-age-of-personalised-marketing/>

<sup>4</sup> <https://www.fastcompany.com/3045317/what-is-generation-z-and-what-does-it-want>

<sup>5</sup> <https://readwrite.com/2017/04/19/how-to-become-an-omni-channel-data-driven-retailer-h1/>

## EFFECTIVE REAL-TIME APPLICATIONS HELP RETAILERS

- 1. Make better informed decisions**  
Strategies, Recommendations
- 2. Discover hidden insights**  
Forensics, Patterns, Trends
- 3. Automate business processes**  
Complex Events, Translation
- 4. Generate new revenues**  
Customer Insights
- 5. Improve Customer Loyalty**  
Personalized value based experience
- 6. Improve Customer Acquisition**  
Click-through rates and offer acceptance
- 7. Optimize use of available data**  
Customer insights and meet customer expectations
- 8. Create a seamless experience**  
Omni-channel, brand identity



## What Stands In the Way

Online retail success depends on acceleration, optionality, and adapting to changing market conditions using the latest technology. Delivering eCommerce applications that provide a competitive advantage is one of the toughest challenges retailers face.

Flexibility and speed are critical to building eCommerce applications and the ability to deliver a personalized online experience at predictable microsecond latency is now the norm. eCommerce solutions must be highly available, perform in real-time, and work with large scale data in motion while processing with 100% accuracy.

Specific customer features like one-click purchasing with immediate fraud detection, personalized pricing, and dynamic offers require applications that have the ability to process multiple concurrent complex events/data sources with varying data sizes, minimal latency, and maximum throughput.

Customers will typically wait one second for a page to load before moving on. Decreasing page load time and increasing availability are absolute musts, implying that server side calls are lightning fast. This also means analyzing and storing huge volumes of data generated by customers while processing the complex business requirements that drive today's eCommerce systems.

In today's cloud-driven age, developers must focus on core business logic, which expect architectural, infrastructural, and operational components to be addressed elsewhere. Application architectures and development practices have evolved to keep pace with highly dynamic business and social ecosystems in which these applications operate. This has given rise to significant computing trends such as cloud computing and microservice architectures, each enabling increased agility and resilient application delivery.

## Achieve A Truly Digital Platform Now

21<sup>st</sup> century eCommerce systems aimed at a diverse customer base ranging from Gen X, Millennials, and to the upcoming Gen Z require systems and tools that break the barrier between analytics and transactional systems. Neeve Research's X Platform™ makes this possible by providing a next generation platform that elevates eCommerce applications to being more network-centric, multi-agency, and distributed.

The X Platform™ truly enables continuous business adaptability, intelligence, and innovation without compromising performance, agility, resilience, or scalability. By providing the components needed to quickly build and deploy fully distributed eCommerce applications, the X Platform™ keeps launches ahead of schedule and costs down. The technology is in-memory, which delivers applications that meet high performance and service-level requirements to ensure the digital platform provides lower risk with greater flexibility. The X Platform™ is the perfect complement to any eCommerce architecture, enabling the performance and scalability needed to beat the competition.

## ECOMMERCE USE CASES

- **Real-time Security**  
*Authentication and access of private data from a single data store in real-time greatly reduces potential security breaches without impacting the customers experience.*
- **Dynamic Value-based Personalized Pricing**  
*Leverage input streams from rules engines, customer data, inventory, and adding predictive analytics in real-time allows the application to offer truly personalized pricing for every item and every customer.*
- **Promotion/Coupon Management**  
*All promo codes and coupons can be validated in real-time, delivering valid inventory codes for specific demographics and customers.*
- **Fraud Detection**  
*Increase the number of data points and utilize AI that can be processed in microseconds, allowing more thorough validations and verifications to reduce fraudulent transactions.*
- **Customer Loyalty Rewards**  
*Enable real-time loyalty offers and rewards to maintain customer loyalty while increasing the average size of each transaction.*
- **Real-time Inventory**  
*Provide real-time inventories across channels to improve inventory management across multiple locations.*
- **Sentiment Analysis**  
*Online sentiment analysis allows real-time response to protect customer loyalty, brand image, and revenues.*



## The X Platform™...

### Is Enterprise Ready

- Born in-memory and designed to scale with data and business needs in mind.
- Proven resilience in mission critical applications at Fortune 500 enterprises.
- Trial and production support ensure simple, successful implementation.

### Provides a No-Compromise Solution

- Build predictable and reliable systems without impact to performance.
- Enterprise availability, disaster recovery, cloud support, zero data loss and performance delivered.
- Componentized use for integrating with your other technology choices.

### Enables Speed, Scale, and Simplicity

- Real-time digital data flows provide better customer experiences and timely decisions.
- Provides elastic scale for stability under various workloads.
- Simplifies the architecture, engineering, deployment, and monitoring of applications and services.

### Reduces Cost

- Faster builds and deployments reduce project duration.
- Hardware footprints are dramatically minimized.
- No highly specialized skills required.
- Cloud ready, open source, and enterprise support.

### Provides Real-time Insight and Visibility

- Leverages bigger data sets at real-time speed to increase accuracy and speed of decisions.
- Ultra-fast access and messaging capabilities reduces risk, enables instant action on real-time insights, and provides analysis on all types of data in motion.
- Event stream processing and dashboards give insights into bigger data sets at real-time speed, increasing accuracy and agility.

## Learn More

Contact us to schedule a live demo!

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## WHAT X PLATFORM™ CUSTOMERS ARE SAYING

*“We now generate pricing based on not only our inventories, but also on past behavior for this customer.”*

*“We lost so much money trying to manage promo codes. That worry is gone now that every promotion is unique to the customer.”*

*“Our revenues increased over 400% in the first month of deploying real-time rewards redemption.”*

## DEVELOPER FEEDBACK

*“We built our first X Platform™ app in less than two days, when we had budgeted for over two months.”*

*“My favorite thing is how the X Platform™ makes it easy to model and write the business logic. It cuts my coding down by 80%.”*

*“I hated writing unit tests, now that is done for me.”*

*“We reduced our hardware footprint by over 50% in the first month.”*

*“It’s amazing how fast my applications run with no GC and no tuning.”*

*“There is definitely value in the X Platform™. By abstracting away service-to-service communication and disaster recovery it lets developers just focus on business logic.”*

*“The X Platform™ lets me do distributed testing on my work station. I can then move to our test cluster with no changes.”*