

Moltin mobile self-checkout:

Digitizing in-store experiences

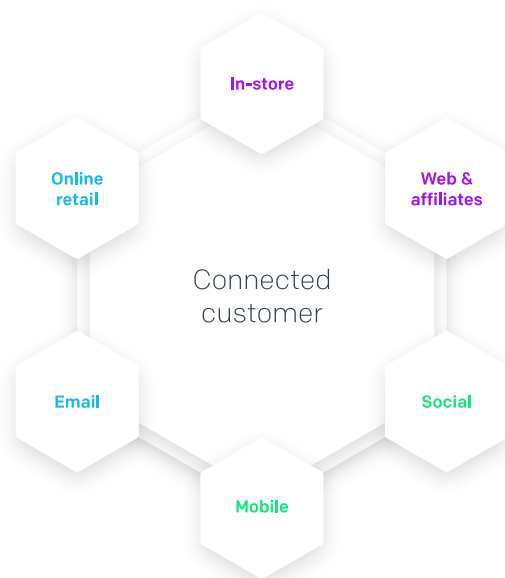


In an age of millennials and digital innovation, in-store shopping trends are constantly evolving with ever-changing consumer behaviors. Committed to continuously identifying some of the major business challenges that industries will have to face over the coming year, Moltin has developed new technology to provide an easy to implement, savvy solution.



Experiences to reach the modern consumer

The average consumer uses six touch-points before buying an item¹. Whether it's Instagram or an interactive display, each one of these touchpoints is an opportunity to inspire consumers with product information or brand experiences. But, why stop there?



Why inspire consumers, only to then dampen their enthusiasm with an intricate labyrinth of pre-purchase steps which leads them through a thorny journey of navigating through channels and downloading interfaces just to pay for an item? Or alternatively, why

make them wait in line at a store to check out just because legacy technologies make it hard to give consumers what they want, when they want it?

In an age of the digitally-empowered customer, delivering great digital experiences is an essential strategy and business imperative. Mobile mindshift has given consumers a much wider sphere of influence. These days, most of the product or service information flow, once in the hands of retailers, is predominantly controlled by consumers who share their experiences and opinion online for everybody to have access.

This is why embracing this new customer journey ensures that a company remains competitive, and is able to monetize the digital experience expected by the consumer.

"Experience" is the keyword here.

¹ Source: [Marketing Week](#)



Experience is shaping a new wave of thinking. The bigger the **“wow”** moment the better chance of engaging the customer all the way through to the actual purchase. It’s all about delighting the consumer on two dimensions. Being present to actively engage the consumers and, at the same time, doing it in a way that makes the brand stand out.

Contained in this concept, the experience becomes the shop. As soon as the interaction is established, when the consumer is deep in an experience with the brand, the transaction can happen. Right there. In the moment.

“Retail is no longer about channels, but about creating experiences and giving consumers control to shop how and where they want”

Adam Sturrock, VP Customer Success and co-founder at Moltin



86% of buyers will pay more for a better customer experience

Source: [eConsultancy, The 2018 Digital Trends report](#)

The once fashionable term **"omnichannel"** now simply means trying to put together basic functionality that will work for multiple platforms with the focus on the media rather than the consumer. At the same time, **"experiences"** means jumping straight to the moment where the brand and the consumer meet and where value is created. The notion of experience is no longer constrained to the media retailers use to reach out to the consumer, rather than finding perfect timing to induce unforgettable feelings, and with that, invite the consumer in.

These trends are why many CMOs and CIOs are focusing more of their budgets on the customer's digital journey, shifting their key responsibilities from a typical IT overseer to an increasingly strategic and cutting-edge business innovator. Leading-edge companies know that experience-driven strategies can help them compete more effectively through customer service and digital innovation, rather than on price or operational technology alone. They are aware that providing a customer-centric experience will make a brand unique, and thus, unforgettable.



The challenge of transforming retail

Modern digital marketing has developed in numerous ways, resulting in incredibly creative sales opportunities to inspire consumers. The best campaigns are memorable, exciting and innovative; they make their way into social media channels, they become conversation topics. Which is fantastic. However, they all end up hitting that inevitable wall when they reach the shop floor: long lines and time-consuming checkout processes, especially during key peak hours like holidays.

experience is key to transforming the digital retail experience. More than half (53%) are positive that the way forward is to deploy applications that reduce friction from the shopping process².

The challenge nowadays is not to advertise a product in a way a consumer wants to buy it, but to keep the consumer's interest long enough for them to go all the way through the entire customer lifecycle, right up until checkout.



27% of customers willing to buy, abandoned their online shopping cart because the checkout process was "too long or complicated".

According to the survey made by a technology provider, Riverbed, almost all (98%) respondents admitted that technology, particularly cloud-based solutions that have a potential to improve the customer

² Source: [Riverbed Digital Performance Survey 2018](#)



Meet Moltin mobile self-checkout: the first app free solution to dazzle the masses

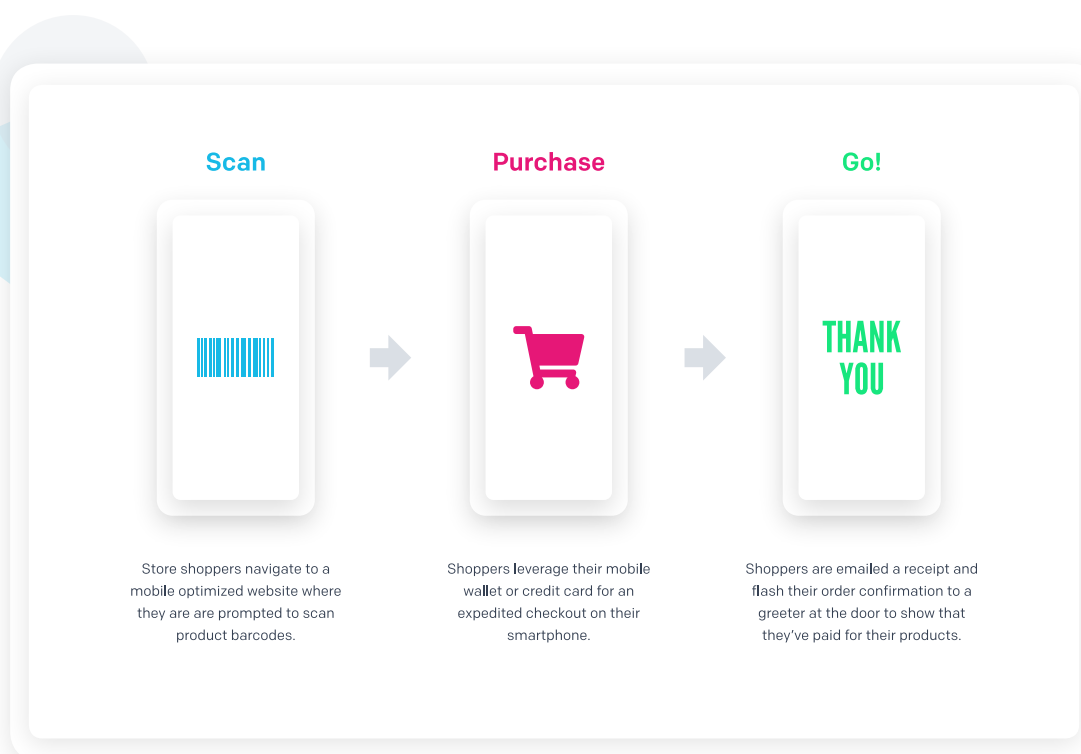
The Moltin mobile self-checkout solution allows customers to completely skip lines and kiosks, and check out using their smartphone. Mobile self-checkout empowers in-store shoppers to use their phones to avoid the otherwise intricate labyrinth of a typical checkout flow. It brings digital marketing into the very tangible context of the brick-and-mortar store, finally blurring the lines between the digital and the physical world.

It also takes self-checkout a step further offering an app-free solution. For the first time ever, consumers can go through an app-centric experience without undergoing the laborious process of finding and downloading an application that drains their phone's data usage, battery and space.

Workflow

The workflow is smooth and streamlined: a customer navigates from their phone to a short URL, scans the product's barcode, and checks it out using Apple Pay, Google Pay or a credit card. The **"app-less"** approach makes the whole process even faster and more user-friendly.

This progressive web app, optimized for mobile, is designed to behave like an app, but being fully browser-based, it's compelling to the consumer as it behaves like a native application, and even better for the implementer, as they have the flexibility, speed and freedom of native browser tooling.



Quick link

A shortened URL or **“quick link”** makes the entire checkout experience as simple as typing in the user-friendly hyperlink. Visually appealing reduced link length promotes the feeling of trustworthiness.

Microservices architecture

The Moltin mobile self-checkout is a progressive web application (PWA) using a reliable and scalable RESTful API built from **“pick and choose”** microservices.

The self-checkout service utilizes Moltin’s APIs - creating a cart, adding products to the created cart, processing the checkout and payment, while Moltin’s backend allows

the solution to integrate seamlessly with any existing infrastructure, including POS systems.

In more detail, once a customer scans the barcode with the smartphone’s camera, the app uses the barcode information to request a product from the Products API. The relevant product is returned to the interface and displayed with information such as price and product description.

On adding the product to a cart, the Moltin mobile self-checkout solution communicates with the Carts API to create a cart with a unique reference number to add the product to. The app seamlessly creates carts and



requests product data over and over without the user having to interject. They can add as many products to their cart as they wish.

To check out a cart, a customer only needs to provide their email address which will be used to send an email receipt. They can then pay for the order using their preferred payment method, be it a mobile wallet or Apple/Google Pay. Behind the scenes, the mobile self-checkout seamlessly communicates with the pre-defined Payment Gateway API to authorize and capture billing information making the payment transaction possible. To the consumer, they are probably unaware of any transitions. To the implementer, Moltin's API abstracts the necessary interactions with

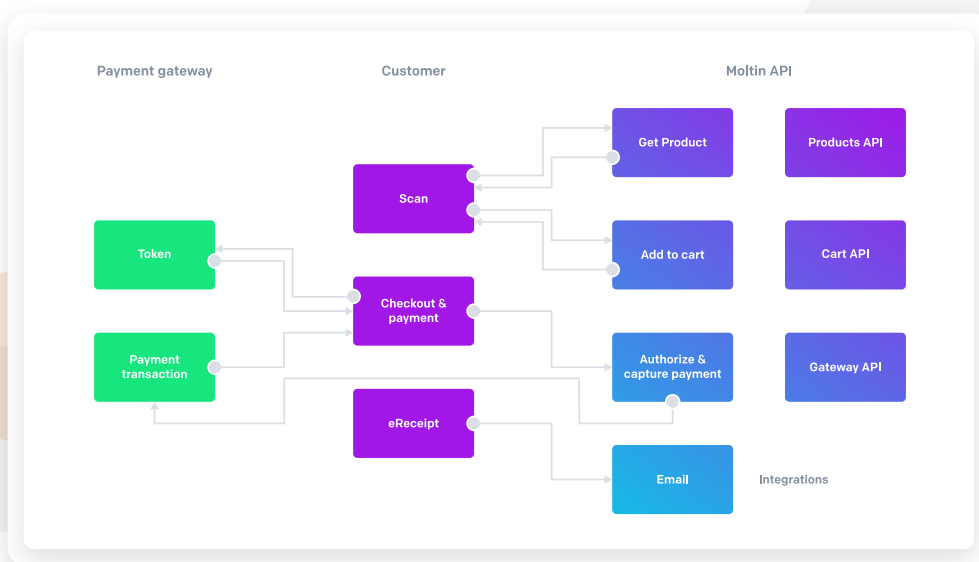
various payment gateways into a standard set of simplistic API calls.

Moltin offers a wide choice of payment integrations such as Stripe, CardConnect, Braintree, Adyen, or manual (for custom integrations like PayPal) and so on. Additional integrations like email allows payment confirmation to be sent right into the customer's inbox automatically and as part of the normal Moltin checkout process.

This solution substantially decreases time needed for the resources to communicate with each other. A customer can scan, checkout and pay for up to 5 items in well under one minute.



Basic self checkout architecture and integrations



Secure solution

Once the product has been scanned, checked out and paid for, a customer receives an online receipt that serves as proof of purchase. The order confirmation screen has been carefully designed in such a way to prevent malicious actors to easily fool retail store employees. The animated and interactive proof of purchase makes it impossible to fake via a screenshot or a back-engineered image.

The communication between resources happens over the secured HTTPS protocol,

and as such is hidden from search engines to ensure any usage stays localized to each store. All interactions are encrypted, and they use a secure connection. This enhanced security layer is especially important for the sensitive data transfer required when paying for goods. It also assures that no confidential data, like a customer's email address can be stolen or misused. Additionally, since the entire experience happens through a single URL nothing that's been used for purchase will remain on the device.



Customer-centric approach

Empowering experience

Self-checkout stands for consumer independence. The customer has full control over the entire process of purchasing goods. This power-shifting experience combined with the freedom to check out at any time makes them feel more trusted and welcomed in the store.

Time well-spent

Customers can finally focus on their main goal, shopping! Mobile self-checkout takes away all unnecessary distractions for both parties engaged in the shopping process. A customer no longer has to locate and queue at the check out to pay for goods, and a store employee no longer needs to spend excessive time at the cash register, swiping cards and bagging products. With

this in mind, customers can spend more time browsing and less time waiting in line, combatting worries for those whose time is in short supply, e.g. shopping in between appointments or during a lunch break.

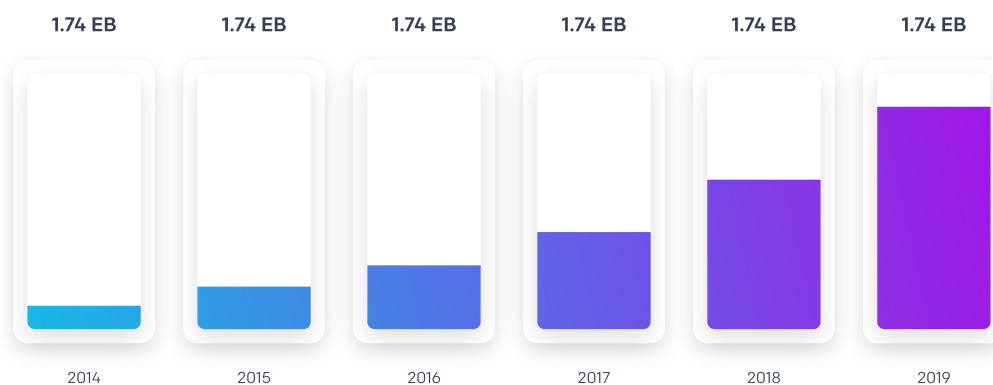
Appealing to instincts

Mobile technology is reshaping basic human behavior and instincts. On average, a smartphone user reaches for their phone approximately every six minutes³ to do everything from checking the weather, reading an email, or sending a text to getting directions, buying something online, or discovering new products suggested by carefully targeted social media campaigns.

This mobile phenomenon has given consumers a much wider sphere of influence.

Global smartphone traffic to increase tenfold by 2019

Global smartphone data traffic forecast (exabyte per month)



³ Source: [New York Times](#)

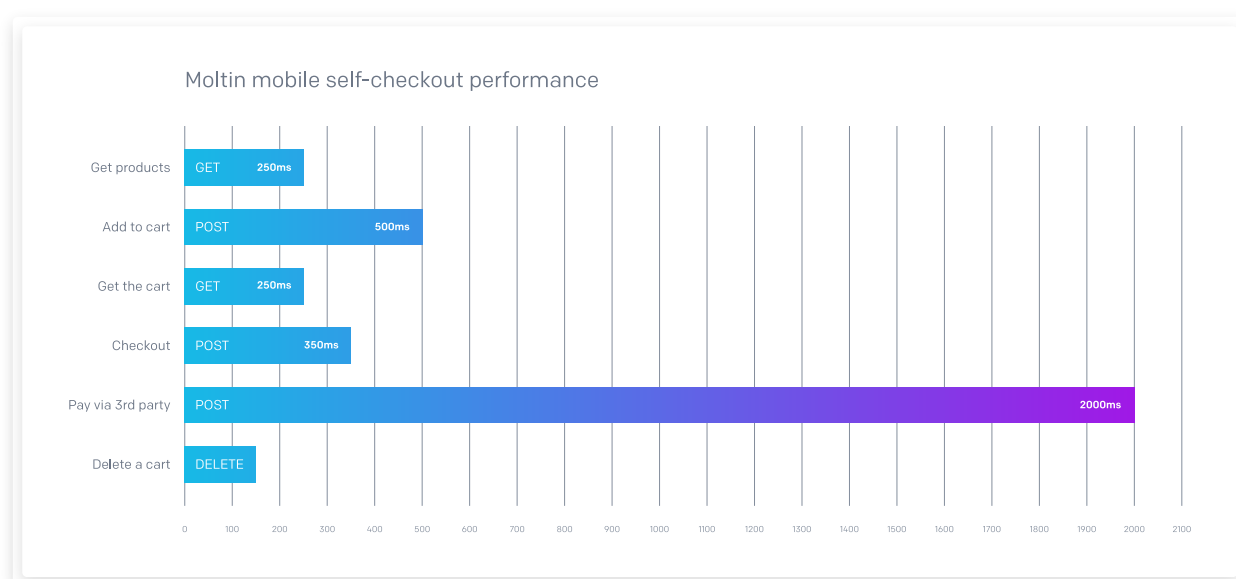


They have an expectation that they can get what they want, anytime, in a strictly defined context, personalized to their specific way of living. The ability to self-checkout on one's phone is a natural step in commerce evolution.

Fast and intriguing

Attention spans and patience are a delicacy in the world of mobile eCommerce. Studies show that it takes 2.8 seconds to distract a person⁴. Slow-loading pages not only drive

customers away from the page but very often from the brand itself. Even just a delay of one extra second can result in losing a customer or their loyalty. This is where Moltin's mobile self-checkout comes to the rescue offering a checkout solution that is not only appealing to customers thirsty for innovative technological experiences, but is also optimized for speed (it takes an average of two seconds to get from a full cart to a checkout page).

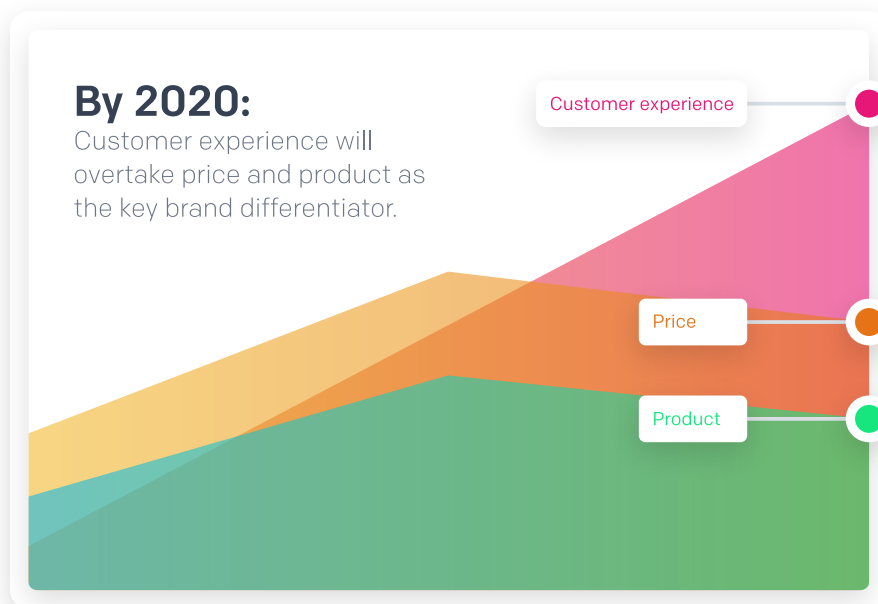


⁴ Source: [Michigan State University research](#)



Up-sell and cross-sell opportunities

Now freed from the checkout, store employees can finally focus on the core task - assisting with shopping and promoting the brand. This means spending more meaningful time with the consumer, providing relevant information about the product, or suggesting alternative solutions. [Walker's Customers 2020: A Progress Report](#) states: **"Customer Experience will overtake price and product as the key brand differentiator by the year 2020."** It's time to embrace the changes, and focus on the exponentially growing needs of a consumer, instead of engaging in mundane processes that can be substituted by technology.





What makes your customers love your business?

73%

Friendly staff
and great service

55%

Easy access to
information and support

Data capture to personalize experiences

When asked about top data management challenges in the [ENK Annual Analytics in Retail Study](#), 42% of retail respondents indicated that data capture was a top data management problem. Just 39% currently use in-store analytics and 36% are looking to implement better in-store analytics in the next 24 months. Moltin's self-checkout solution facilitates this process, and allows for more direct and personalized marketing campaigns aimed at people who walk into a store with a mobile device already in their hands. This type of customer relies heavily on mobile-provided information, and would benefit greatly from such advertising approach.

Targeted marketing communication catering to specific individual needs makes a business far more approachable. According to [Return Path's Email Intelligence Report](#), inept marketing communications account for

70% of today's spam complaints. Modern consumers expect meaningful and highly relevant information to feel valued and respected by a company that attempts to reach out with their advertising campaign.

Aimed at early adopters

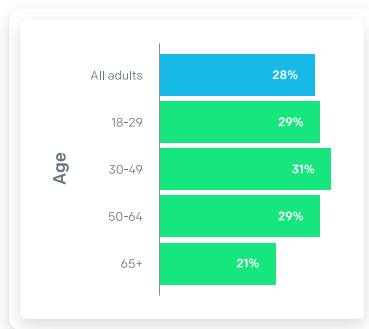
As [PWC](#) accurately points out, early adopters are known for their excessive spending habits, especially when a gadget or new technology is involved. According to their own survey, more than 1,000 consumers nationwide found that early digital adopters are less price-conscious, and are more drawn to the latest mobile novelties.

Grow faster with less

Instead of having a spacious traditional checkout area manned by at least a couple of cashiers, a mobile self-checkout option allows retailers to invest in small and relatively inexpensive kiosks and pop-ups to help grow their business. This leaves more space for product displays.



U.S adults with a strong preference for new technology products - the early adopters



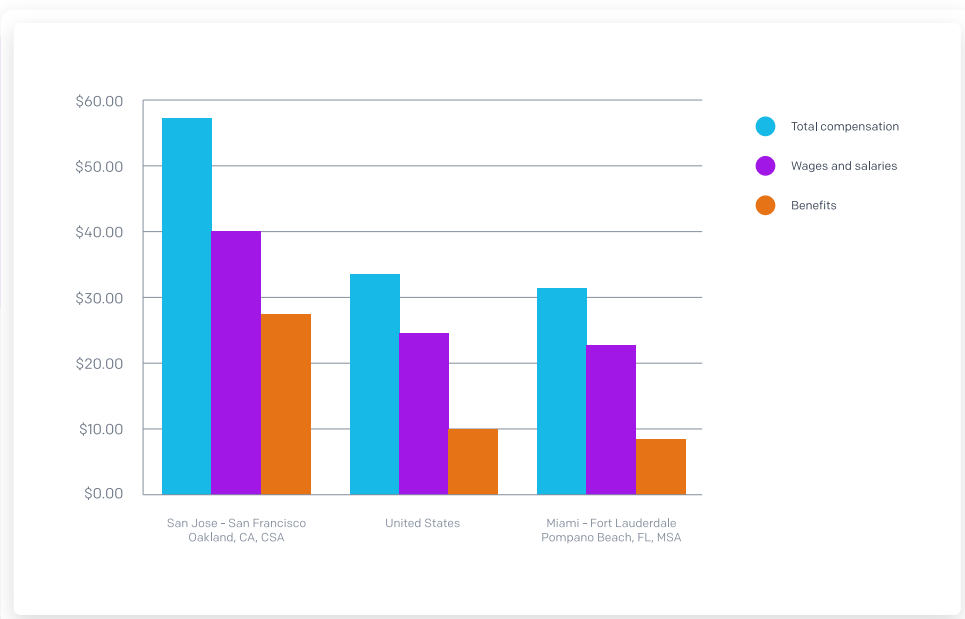
Having the ability to check out anywhere also changes the way we physically purchase goods. You could capture a consumer right at the point of discovering a product before the doubt of purchase creeps in.

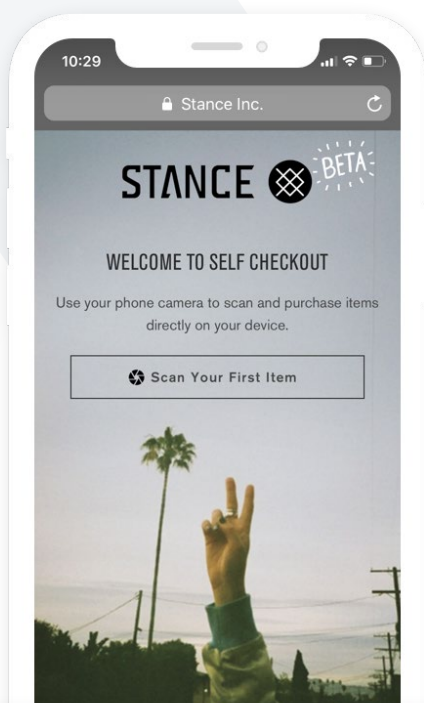
Physical shop layouts can also be freed from the standard patterns we see day in, day out,

liberating the design of spaces to encourage and invite customers to stay beyond their usual **"dash in and out"** purchase.

Reduced costs

According to the [U.S. Bureau of Labor Statistics](https://www.bls.gov), employer costs for employee compensation averaged \$36.32 per hour worked in March 2018, particularly during quiet periods, be it right after a huge sale, in between seasons or just that time of day when the customers turnover is scarce. Self-checkout can significantly cut back costs of staff upkeep. Lower overheads, in this case, won't have any impact on the service provided, as the laborious checkout process would already have been taken away from them.





Self-checkout at work

Moltin's APIs offer a headless approach to commerce, providing limitless flexibility over the device a transaction is to take place on. The example below showcases Stance, the first store to use the mobile self-checkout progressive web app implementation.

Stance case study

Moltin-powered self-checkout has already been deployed for Stance, an innovative California-based apparel retailer. Once a customer walks into a Stance store and picks up an item they're interested in, they can then scan it, checkout and pay through their phone.

"We are really excited to be at the forefront of the retail experience by offering a truly hassle-free self-checkout experience in our stores. People don't want to wait in line, and they don't want to download an app to avoid a line either. This solution combines the richness of a physical retail store visit with the convenience of eCommerce to give our guests the best experience possible. We believe it will raise the bar in terms of what customers will come to expect from retailers."

Paul Zaengle, Executive Vice President of direct-to-consumer at Stance

"We're extremely excited to partner with Stance on this initiative. As a brand defined by its creativity and technical innovation, it's no surprise that Stance wanted to push the boundaries of traditional commerce by making self-checkout as simple as possible for its customers. It's a great example of the types of innovative experiences enabled by Moltin. It's proof that cutting-edge solutions are not only for those with massive resources and footprints — the future is accessible to everyone."

Jamus Driscoll, CEO at Moltin

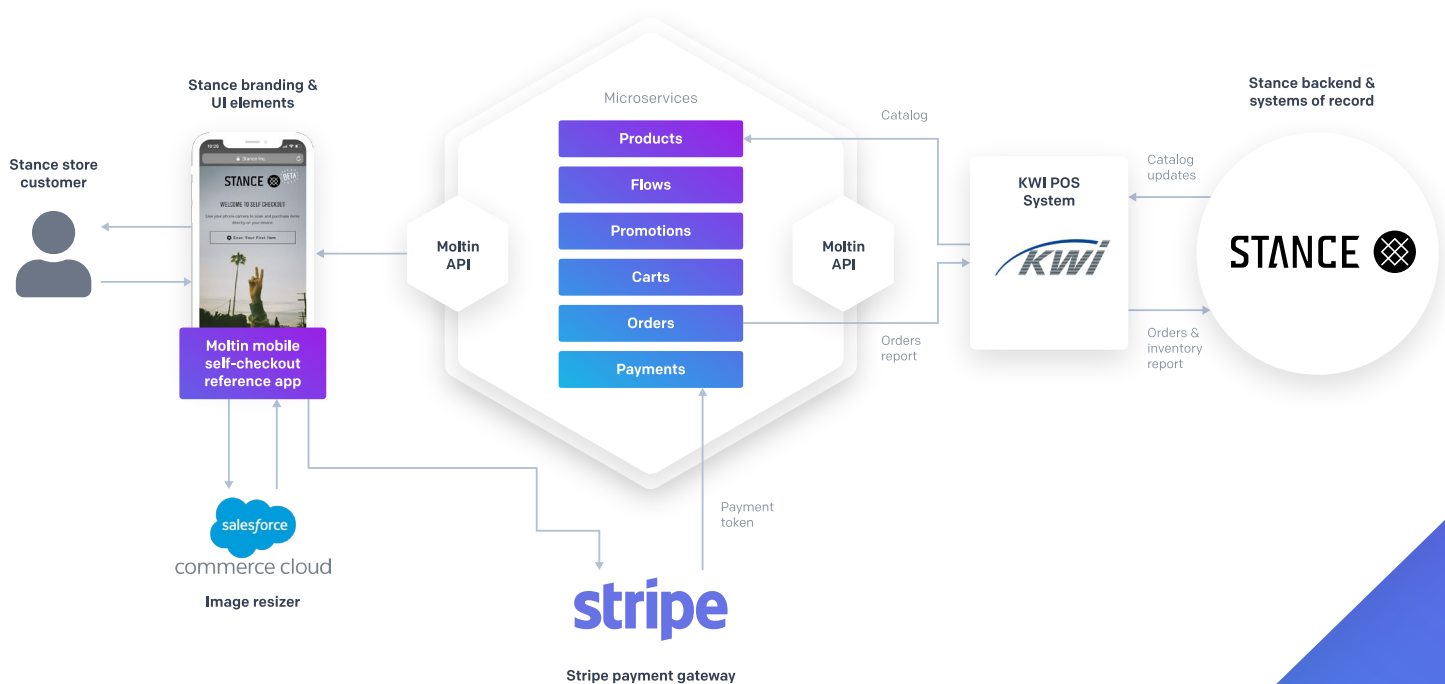


“Moltin was able to develop and deploy this solution in less than two months, which is a testament to the power of its API platform.”

Meaghan Donlon, Product Owner at Moltin

Stance Architecture

Stance self-checkout solution is powered by the Moltin API backend using a number of microservices plugged into their existing website and integrated with their specific POS system and payment gateway. The payment experience is optimized through the Stripe platform running alongside Moltin’s APIs.





Succeed with Moltin

The solution is now available to all customers as a reference application that can be customized to unique business needs. Moltin's APIs can connect to existing catalogs, payment gateways and POS systems, allowing retailers to manage store catalogs, inventory and order processing with their existing systems if desired.

Quick and painless implementation

Moltin uses an API-first approach to remove the constraints of traditional commerce. Thanks to flexible APIs, developers can build rich, vibrant commerce experiences. Retailers can embed commerce in any device, social application, or digital display, including smart televisions. They can build beautiful commerce experiences without being confined to a template, and make use of an easy, intuitive UX to use as boilerplate to develop the entire infrastructure around.

You can merge Moltin mobile self-checkout in less than a month with your existing architecture in 6 simple steps:

- 1 Sign up to Moltin.
- 2 Add your products
(either directly or via a feed from the existing commerce platform or POS).
- 3 Leverage Moltin's mobile self checkout reference application as a boilerplate which your Engineering team can customize and update for your business.
- 4 Connect your desired payment processor.
- 5 Plug into your existing system of record as needed.
- 6 Launch!

If you have any questions or are interested in deploying your own self-checkout experience, visit moltin.com or contact us directly at sales@moltin.com.