MARQETA

The Magic of Payment APIs on Business Model Innovation

How modern card programs built with APIs help companies build brand loyalty, increase customer engagement and transform their business models.

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 3   "token":"**YOUR CARD PRODUCT TOKEN**",
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APIs are the foundation of modern technology infrastructure.

Application programming interfaces (APIs) help applications communicate with each other in a standardized way. Their plug-and-play functionality allows companies of all sizes to tap into the expertise of a third-party provider to expand services, streamline processes and improve cost efficiency. APIs have changed where and how companies innovate and invest in their technology stack, accelerating their speed to market and deepening customer relationships. Nowhere are these benefits more pronounced than with modern payment APIs.

Startups, high-growth companies and established companies are leveraging the flexibility, control, and speed provided by modern payment platforms and APIs to build standout brands and trusted customer relationships:

> Affirm, Kabbage, Klarna and other consumer and SMB lenders use the speed of modern payment platform to securely send virtual cards to consumers at the point-of-sale for a just-in-time funded loan.

> Online travel and shopping aggregators like ConnexPay and IPSY use the speed and efficiency of instantly issued virtual cards to create a single-cart checkout experience with multiple suppliers.

> On-demand delivery companies like Postmates, DoorDash, Instacart, and Cornershop onboard new workers faster and reduce the risk of fraud by integrating modern payments APIs into their onboarding app to control authorization at the point-of-sale.

This eBook will explore how companies like these leverage modern payment APIs to innovate new services and transform their business models. We will review use cases from innovators who use payments to differentiate and scale. And we will also explain the dominance of APIs in payments and suggest how to pick the best platform for your business.

How Payment APIs are Shifting Control from Banks to Companies

The history of APIs tells a story of innovation in which the demands of our always-on economy and the connected consumer were met with openness and speed. As mobile applications became more sophisticated, legacy payment systems just couldn't keep up. Modern payment APIs arose to support mobile business and quickly evolved to become essential business infrastructure for modern companies. APIs unlock data and functionality in applications, providing secure, reliable and scalable access to third-party platforms. The rise of open APIs—APIs that are publicly available—is behind a shift to more distributed and modular architectures that are fueling the rapid development and deployment of new products and services.

Modern payments APIs have opened a new world of financial services innovation that is helping to fuel a fintech revolution. According to Finextra, "Payments processing is the engine driving the financial technology venture market, with three mega-transactions accounting for $87 billion in deal value during the first half of 2019."

The first wave of payments innovation was represented by companies like Square and PayPal, who simplified card acceptance for merchants (often called "acquiring") and streamlined the customer experience. As innovation continued with merchants on the acquiring side, businesses still had to work with the legacy systems like checks, ACH, and wire transfers to make payments to their suppliers, customers and employees. For online travel and shopping aggregators, these legacy payment systems impacted supply chains, making it difficult to secure inventory which lead to unfulfilled orders and unhappy customers.

Switching to cards: physical, virtual or tokenized was faster and more efficient, but the process of setting up a new card program with a bank was often a long and expensive proposition. Complicated paperwork and substantial deposits and fees were required upfront, followed by a long waiting period with no guarantee that the card program would be approved. It could take up to a year to get a new card into the hands of customers and the features of that card were dictated by the issuing bank, not by the company offering the cards. Meanwhile, there was nothing to differentiate one company's cards from its competitors.

Back in 2010, Marqeta launched the first modern card issuing and processing platform. It was developed for companies who were ready to leverage the speed, agility and control of modern APIs to make curated payment programs unique to their brands. **For the first time, companies could:**

> Issue their own physical, virtual and/or tokenized cards with a few clicks

> Get end-to-end visibility into every transaction

> Control where, when and how a card was used with dynamic spend controls

> Fund zero-balance cards in real-time with an exclusive Just-in-Time (JIT) funding feature

> Manage transaction processing with speed and reliability at scale

> Tap the expertise of program management resources and customize the support of managed services like PCI compliance and cardholder support

> Dive into deep data insights, reporting and advanced analytics tools

Increasingly, companies are leveraging the value of modern card issuing to their advantage.

"Openness, agility, flexibility, and scalability are moving from good hygiene to life-and-death priorities."

Source: Deloitte Tech Trends: What is the API Economy? From Systems to Business Services, 2015

How Modern Payments Impact the Bottom Line

Payments have become much more than traditional back-office accounts payable systems built to move money out. Today, payments are integral to the customer experience, helping brands create trusted connections with customers, workers and key stakeholders. Integrating modern payment APIs helps companies innovate new products and services, boost customer engagement, bring in new revenue streams, control costs and manage fraud.

› Online shopping and travel aggregators use the speed and efficiency of instant issue virtual cards to facilitate single-cart checkout. In this way, they secure dynamic pricing from suppliers in milliseconds and gain brand differentiating advantages.

› Fintechs and digital banks use APIs to design suites of services that leverage the speed of modern platforms to deliver innovative solutions like digital banking and point-of-sale lending.

› On-demand delivery companies streamline their shopper purchases and reduce fraud using payment APIs with Just-in-Time (JIT) funding to manage zero-balance cards that are authorized at the point-of-sale.

› Non-financial services companies like tech giants are gaining new revenue streams by building branded card programs that are aimed at becoming the card of choice for their customers.

› All companies are leveraging the transaction insights of real-time data to find new revenue opportunities and cost-saving efficiencies in their payment operations.

In our on-demand digital world speed, agility, control and efficiency are rewarded with market success. Modern payment platforms and APIs are giving companies access to innovation that delivers measurable contributions to the bottom line. With branded cards and other programs, companies are building stickiness with customers and lasting relationships with suppliers, contractors, employees, and partners.

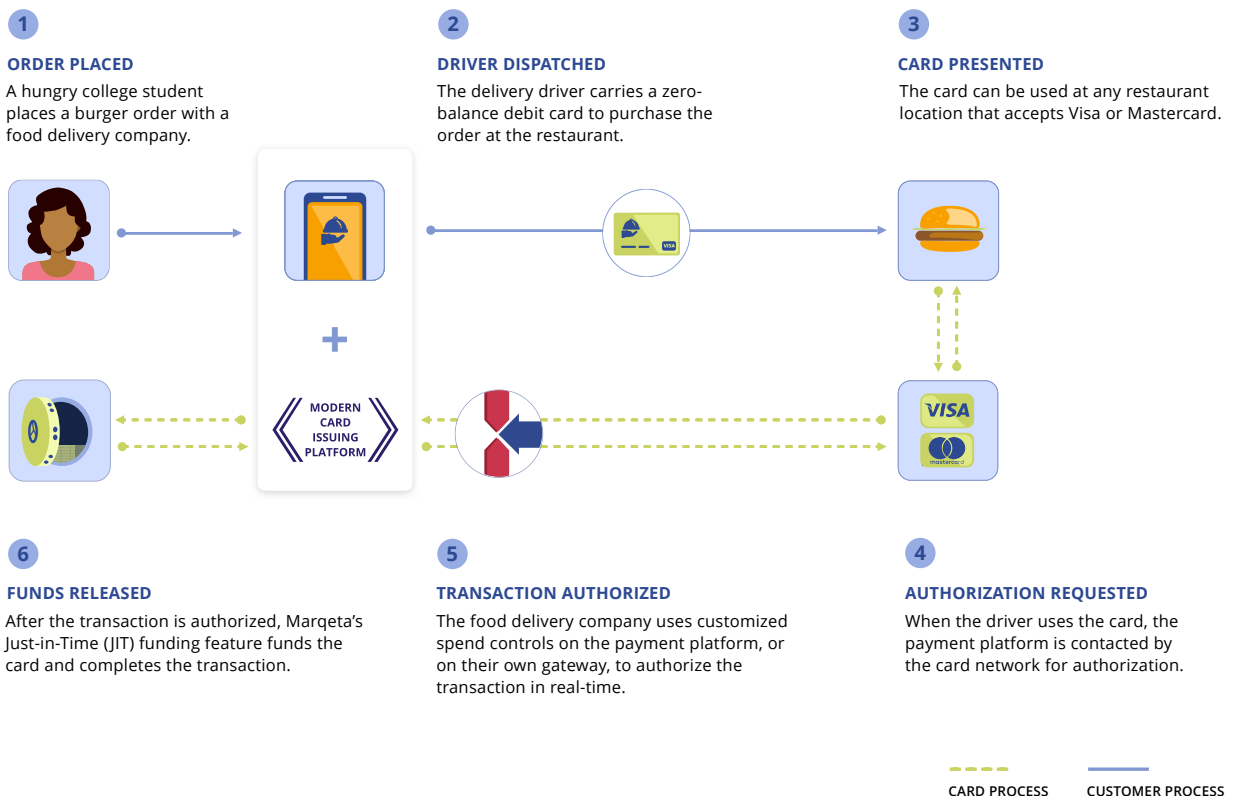| Business Drivers	Payment Platform Impact
INNOVATE NEW SERVICES	Use open APIs to design tailored customer experiences and launch minimum viable products (MVPs) with ease.
GET TO MARKET FASTER	Use developer sandboxes to build and test new products and integrate compelling features quickly.
UNCOVER NEW REVENUE STREAMS	Tap new revenue streams with branded card programs that customers use for everyday purchases, and leverage end-to-end transaction visibility and analytics to uncover new insights.
SCALE & EXPAND	Expand branded payment programs internationally and manage cross-border payments with ease and world-class reliability and uptime.
MITIGATE RISK	Leverage Just-in-Time (JIT) funding to fund individual cards at the point-of-sale and use spending controls on every transaction to mitigate fraud and better manage cash flow.
IMPROVE COST EFFICIENCIES	Streamline payment flows, reconciliations and chargeback resolution with instant-issue of virtual cards for every transaction.

Real-world Use Case:
On-Demand Delivery

BRINGING THAT BURGER TO YOUR DOOR

An on-demand workforce requires new payment processes. Onboarding new workers to make deliveries and ensuring that they are purchasing the requested items at the right time and place is critical to on-demand delivery companies.

1 ORDER PLACED
A hungry college student places a burger order with a food delivery company.

2 DRIVER DISPATCHED
The delivery driver carries a zero-balance debit card to purchase the order at the restaurant.

3 CARD PRESENTED
The card can be used at any restaurant location that accepts Visa or Mastercard.

MODERN CARD ISSUING PLATFORM

6 FUNDS RELEASED
After the transaction is authorized, Marqeta's Just-in-Time (JIT) funding feature funds the card and completes the transaction.

5 TRANSACTION AUTHORIZED
The food delivery company uses customized spend controls on the payment platform, or on their own gateway, to authorize the transaction in real-time.

4 AUTHORIZATION REQUESTED
When the driver uses the card, the payment platform is contacted by the card network for authorization.

---- CARD PROCESS   **—— CUSTOMER PROCESS**

◀ Payments Then

In the past, companies that wanted to offer corporate cards had to qualify with an issuing bank. The process required established credit histories, large reserve accounts and upfront deposits and fees. It could take up to a year to bring a card to market. Issuing cards to temporary workers within 48 hours would not have been possible. To avoid these delays and limitations, on-demand delivery companies were forced to give their drivers preloaded gift cards to purchase food and grocery items for their customers, often leading to fraudulent activity and frustrated drivers.
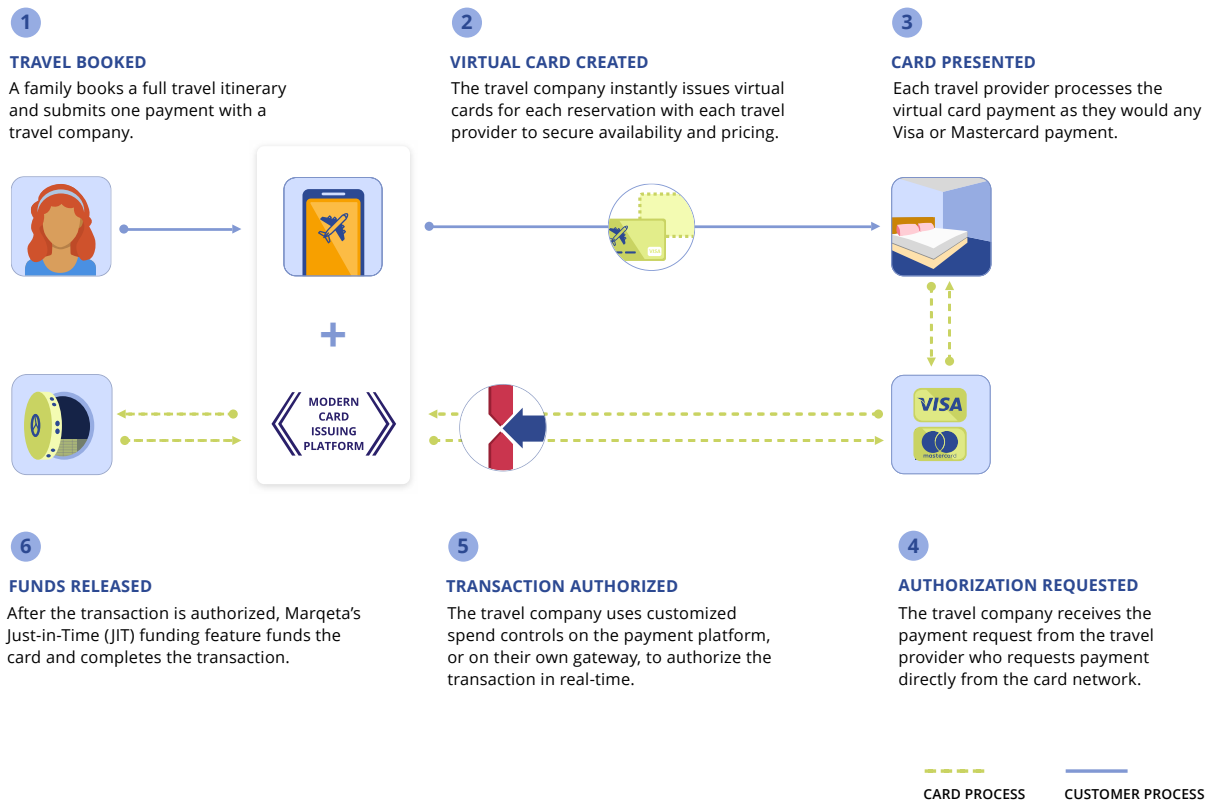
Payments Now ▶

Today, on-demand delivery companies partner with a modern payment platform like Marqeta to design customized card programs with real-time control over every transaction. By leveraging payment APIs and established relationships with issuing banks and card fulfillment partners, they are able to accelerate their time to market. Virtual cards can be issued by the company instantly, along with physical cards, if needed, that are printed with their brand. Depending on the payment platform, those cards and every transaction made on them can be controlled by the company through a customizable dashboard. Some platforms have Just-in-Time (JIT) funding, meaning the cards carry a zero-balance until they are swiped. In those few milliseconds, the transaction is authorized by the company based on requirements like store/restaurant location, time, cardholder and amount. For some platforms, a full suite of data analytics tools are available to help the company uncover new areas of opportunity to mitigate fraud, better manage cash flow and improve customer experience.

Real-world Use Case:
Online Travel & Shopping

GETTING WHAT YOU ORDERED AT THE RIGHT PRICE

Payments are deeply integrated into online travel and online shopping. Modern payment platforms help ensure that the items in the cart are purchased before the supplier's inventory runs out. Payment platforms deliver the speed needed to facilitate multiple transactions from multiple providers at the best price. End-to-end visibility of every transaction streamlines the expensive process of managing chargebacks and reconciliations as well.

1

TRAVEL BOOKED
A family books a full travel itinerary and submits one payment with a travel company.

2

VIRTUAL CARD CREATED
The travel company instantly issues virtual cards for each reservation with each travel provider to secure availability and pricing.

3

CARD PRESENTED
Each travel provider processes the virtual card payment as they would any Visa or Mastercard payment.

MODERN CARD ISSUING PLATFORM

6

FUNDS RELEASED
After the transaction is authorized, Marqeta's Just-in-Time (JIT) funding feature funds the card and completes the transaction.

5

TRANSACTION AUTHORIZED
The travel company uses customized spend controls on the payment platform, or on their own gateway, to authorize the transaction in real-time.

4

AUTHORIZATION REQUESTED
The travel company receives the payment request from the travel provider who requests payment directly from the card network.

CARD PROCESS   CUSTOMER PROCESS

◀ Payments Then

For decades, checks, ACH and fax machines were the norm, and so was a steady group of unhappy customers who discovered that their airline reservations or the items in their shopping carts were no longer available after they placed their order.
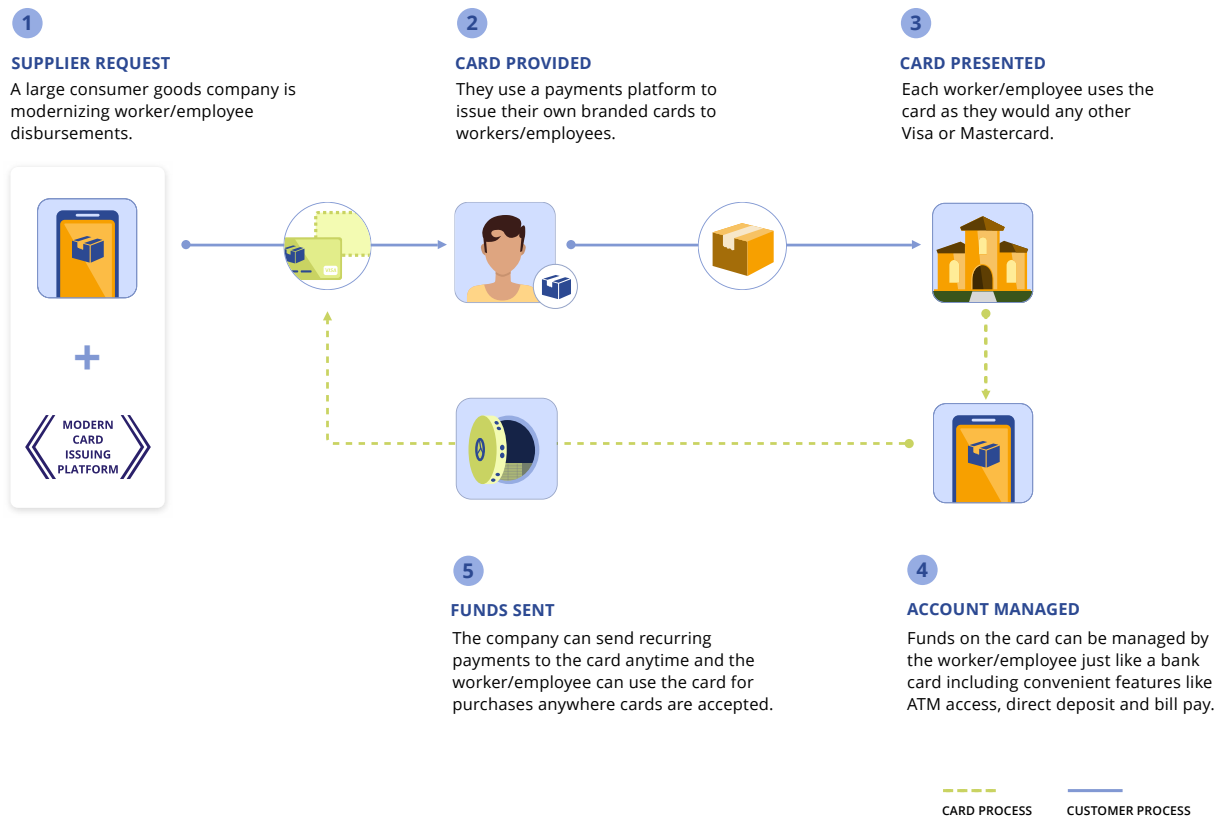
Payments Now ❯

Today, online travel and shopping companies partner with modern payment platforms and use their APIs to integrate virtual card programs into their back-office operations. Companies issue virtual cards to suppliers, enabling them to pay for each reservation or online purchase instantly, even if they are interacting with multiple suppliers. Each transaction has a unique virtual card number, so chargebacks and reconciliations are done with ease. If the platform also offers spending controls and Just-in-Time (JIT) funding, the company can control when, where and how each card is used and only fund cards that meet criteria like supplier, day, time and amount.

Real-world Use Case:
Corporate Expense Management

BUILDING EFFICIENCY INTO MONEY-OUT SYSTEMS

Companies looking to streamline workflows, reduce operational costs and improve efficiency are using modern payments technology to manage corporate expenses and send money to contract workers and partners. Payment platforms give companies the control to issue physical or virtual cards and manage spending on those cards using APIs.

1

SUPPLIER REQUEST
A large consumer goods company is modernizing worker/employee disbursements.

2

CARD PROVIDED
They use a payments platform to issue their own branded cards to workers/employees.

3

CARD PRESENTED
Each worker/employee uses the card as they would any other Visa or Mastercard.

MODERN
CARD
ISSUING
PLATFORM

5

FUNDS SENT
The company can send recurring payments to the card anytime and the worker/employee can use the card for purchases anywhere cards are accepted.

4

ACCOUNT MANAGED
Funds on the card can be managed by the worker/employee just like a bank card including convenient features like ATM access, direct deposit and bill pay.

CARD PROCESS   CUSTOMER PROCESS

◀ Payments Then

In the past, accounts payable systems and checks were the dominant payment methods for companies to disburse funds to internal teams and pay suppliers and contract workers. Customer demand for faster delivery of goods and services accelerated the need to speed up the process of making payments and reconciling payments within companies as well. Streamlining payment operations became a top priority, opening new opportunities to improve the bottom line.
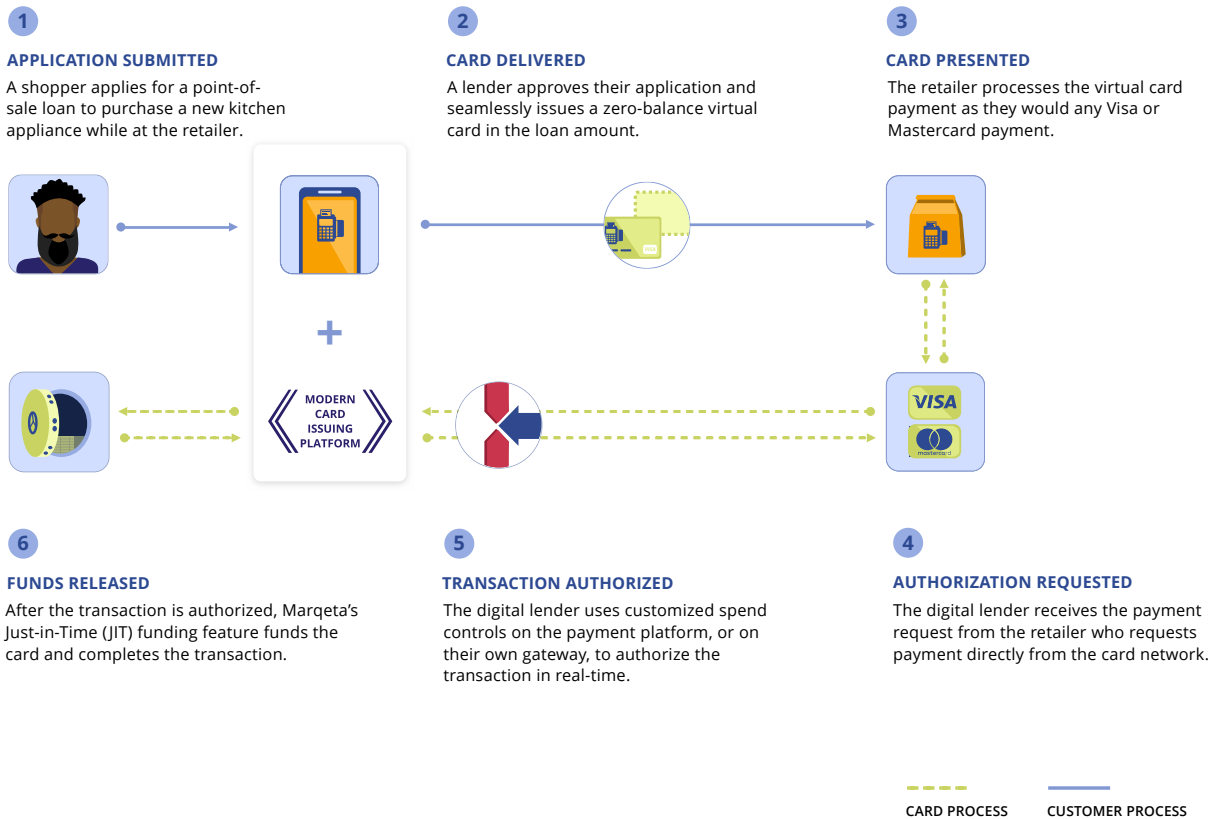
Payments Now ▶

Today, companies use modern payment platforms and APIs to issue and authorize custom card programs for physical or virtual cards. Companies use cards to allocate funds to internal teams for specific events, employees or purchases, and they control how those cards are used with spend controls that they manage and monitor with real-time data. Virtual cards improve brand perception and streamline processing costs by accelerating payments to workers and simplifying reconciliations. Insurance companies use card programs to settle insurance claims quickly.

Real-world Use Case:
Fintechs & Digital Banking

CREATING SEAMLESS EXPERIENCES IN FINANCIAL SERVICES

Modern payment technology is core technology for this sector. APIs lend the flexibility, speed, and control to fuel new product and service innovation like digital-only banking and point-of-sale lending. Card issuing and processing platforms empower brands to bring their cards to the top of their customer's wallets using APIs to integrate new services like direct deposit, bill pay and ATM access.

1

APPLICATION SUBMITTED

A shopper applies for a point-of-sale loan to purchase a new kitchen appliance while at the retailer.

2

CARD DELIVERED

A lender approves their application and seamlessly issues a zero-balance virtual card in the loan amount.

3

CARD PRESENTED

The retailer processes the virtual card payment as they would any Visa or Mastercard payment.

MODERN CARD ISSUING PLATFORM

6

FUNDS RELEASED

After the transaction is authorized, Marqeta's Just-in-Time (JIT) funding feature funds the card and completes the transaction.

5

TRANSACTION AUTHORIZED

The digital lender uses customized spend controls on the payment platform, or on their own gateway, to authorize the transaction in real-time.

4

AUTHORIZATION REQUESTED

The digital lender receives the payment request from the retailer who requests payment directly from the card network.

CARD PROCESS   CUSTOMER PROCESS

◀ Payments Then

There was only one way for companies and consumers to secure a loan and that was through a bank. It began with a bank interview, required many documents of reference including financial statements and tax returns, and ended weeks and even months later with a "yes" or "no". With approval came many fees and a mountain of paperwork to sign before you received a check in hand.

Payments Now ▶

Today, lenders and digital banks are leveraging the speed and flexibility of payment platforms to deliver funds to their customers in minutes not weeks. Modern payment APIs empower them with end-to-end visibility, and the control to authorize every transaction in real-time. They manage cardholder data security as they instantly issue virtual cards and tokenize them to digital wallets at the point-of-sale or through their smartphone. These innovators are using Just-in-Time (JIT) funding to manage fraud, optimize cash flow and simplify compliance requirements easily with tools like PCI Compliance widgets. Through bank partnerships and direct integrations with card networks, digital banks can now offer customers traditional banking products like checking, savings and investment accounts in a fraction of the setup time. Modern payment platforms are fueling powerful new business models that add real value for consumers every day.

API-Powered Cards Are Key to Modern Payments

A few years ago, many predicted the end of physical cards as mobile wallets moved into the spotlight. Headlines like "Is the Debit Card Dead?" were commonplace. But that forecast was off the mark. Consumers continue to want physical cards with great design, new features and integrated functionality. Cards have not only survived, they've thrived.

Apple, the brand most known for technology innovation, includes both physical and virtual cards in its new payment solution. Billed as "a new kind of credit card, created by Apple, not a bank,"* the new Apple card reflects modern API-powered card technology: cloud-based tokenization provides the security needed for use inside mobile wallets and also supports single-use virtual cards. Cardholders are treated to color-coded spending analyses and instant cash back. They can click on a charge and see its location on a map, and split a bill with a friend.

Many of the seamless transactions integrated into our favorite apps rely on API-powered cards.

> Make a purchase with an instant microloan or pay an on-demand driver without taking out a wallet

> Pay and tip a meal delivery service

> Purchase work-related items without needing to document receipts or fill out expense reports

As digital payments proliferate, companies across all sectors are pushing the boundary of what modern card technology and increased processing power can do for their business.

*Apple Newsroom https://www.apple.com/newsroom/2019/08/apple-card-launches-today-for-all-us-customers/

Choosing the Right Payment API for your Business

Now that payments are a game-changer for companies, many new payment technology platforms have come forward. Depending on your business goals, one platform may be better than another. Here are a few important guidelines to consider:

> **Modern Technology:** Modern APIs, written in modern software languages are essential. APIs built on legacy systems and off-the-shelf card programs can constrain customization. If you're developing a new service or integrating a custom solution and need both flexibility and control, look for modern infrastructure and open APIs.

> **Reliability:** Nothing is more important than the reliability of the platform. Ensure that uptimes meet your expectations and that the system has been tested at scale.

> **Payments Expertise:** Modern payment technology is bringing payments into the 21st century, but payments are still deeply rooted in rules and regulations. Look for a team with both the enthusiasm, the expertise and the partnerships necessary to ensure efficiency and full compliance.

> **Partnerships:** Established partnerships with banks, card networks, card fulfillment providers, cardholder support services and many other providers are an essential component of a modern payment platform. Look for direct tech integrations and longstanding relationships with multiple providers.

> **Dedicated Customer & Cardholder Support:** There are many moving parts in payments and things happen that can impact card fulfillment, payment processing, and other areas. Ensure the platform you chose has dedicated staff with the expertise and market experience to solve issues quickly and efficiently.

> **Global Reach:** Business today is frequently conducted on multiple continents. Global reach ensures that curated, branded programs are engaging and effective worldwide.

The Marqeta Platform

BUILD QUICKLY

Develop, launch and scale new payment solutions fast with a modern card platform built for innovative companies
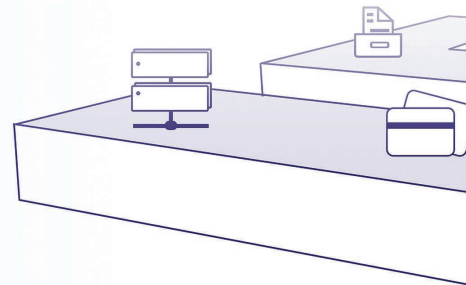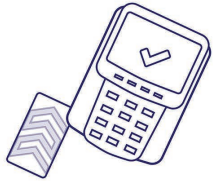
Customize

CUSTOMIZE INTELLIGENTLY

Design a card program for your unique business goals using hundreds of market-tested APIs, and real customer insights

EMPOWER SECURELY

Scale your payments program easily while ensuring the highest standards of reliablility and security
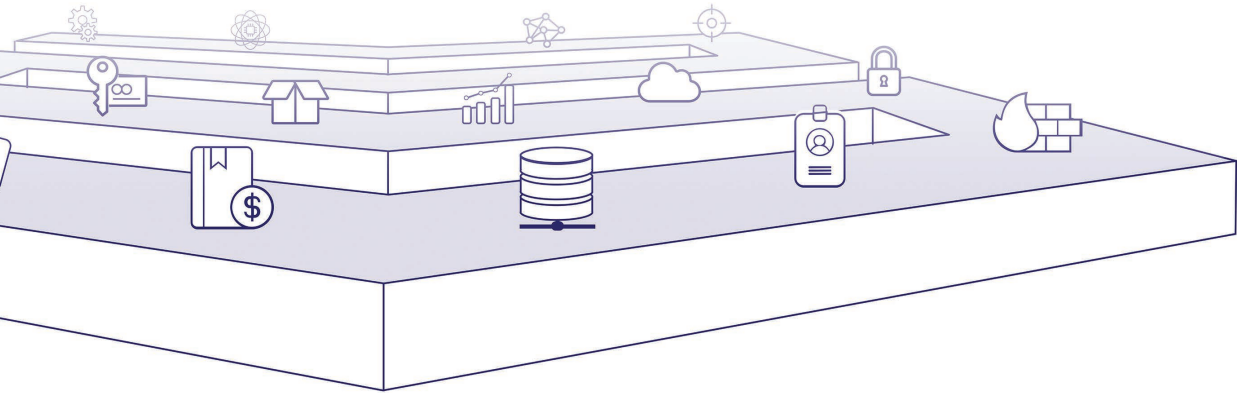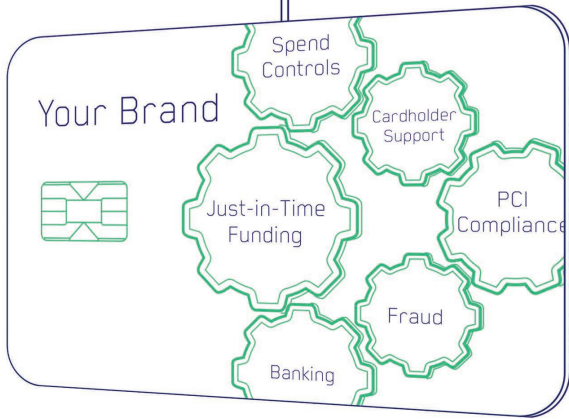
Launch

Scale

Expand

Your Brand

Spend Controls

Cardholder Support

Just-in-Time Funding

PCI Compliance

Fraud

Banking

Modern payment APIs are paying off in ways we have only just begun to imagine.

Conclusion

Modern payment APIs are being adopted by innovators who are looking for faster ways to bring new products and services to market. Although invisible to end users, APIs are integral to modern businesses. Along with APIs for cloud computing and storage, communications and analytics, payment APIs are empowering developers to innovate, expand and build more efficient business models. No longer are new applications and services bogged down in lengthy and complex relationships with banks. With easy, plug and play access to modern payment infrastructure, APIs have opened new possibilities for the creation of all kinds of new services and for many different modes of commerce. Modern payment APIs are paying off in ways we have only just begun to imagine.

⫸ MARQETA

Marqeta is the first modern card issuing platform built for the agile, digitally savvy customer. We power modern payment experiences for many of the apps and services you enjoy every day such as booking travel, ordering meal delivery or applying for a loan. Our customers are disruptors who are not afraid to upend decades-old business models to create tailored payment experiences that meet the unique needs of their business with unprecedented speed, flexibility and control. Our technology and payments expertise serves a wide breadth of industries from on-demand delivery services that manage fraud with dynamic spend controls, to digital lenders who fund virtual cards and push them to digital wallets at the point-of-sale, to ecommerce aggregators who use real-time payments to secure inventory and optimize payment terms. Our modern payments platform and APIs make these experiences possible by empowering developers to issue cards, authorize transactions and manage payment operations with ease. Highly configurable, secure and reliable, Marqeta's platform helps B2B and B2B2C companies compete in a constantly changing digital world.

⫸ *Try out our Sandbox and visit our Documentation at **marqeta.com**.*