A photograph showing a person's hands holding a smartphone over a payment terminal. The phone screen displays a white square and a signal icon. The background is a blurred retail or cafe setting with shelves of goods and a child looking at a terrarium on the counter.

# Fast, agile, adaptable

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**Are your systems  
equipped to keep  
up with modern  
card processing?**

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 Fast, agile, adaptable

# The changing face of card processing

**Legacy technologies that have been in operation for decades don't have the flexibility required to respond to change at its current breakneck pace.** This is becoming increasingly evident with each passing year across the financial services industry, particularly in payments and transaction processing.

It's especially clear in the card payments sector, where many existing systems are predominantly focused on regular debit and credit card processing, even though alternatives to these traditional transaction types—such as virtual cards stored in digital wallets, prepaid cards and bank transfers—are becoming increasingly common.

Consequently, it's important for the key parties involved in the processing of payments—particularly acquirers—to be responsive and adaptable to market trends. This is difficult and expensive to achieve if you are reliant on legacy systems.

The scale of change underway in the payments landscape was underlined by Worldpay in its latest Global Payments Report<sup>1</sup>. The research showed that credit cards were the most common global payment method in 2016, accounting for 29 percent of all transactions. Digital wallets (18 percent), bank transfers (17 percent) and debit cards (13 percent) followed.

However, Worldpay is expecting a big change in this dynamic over the next three years, with digital wallet usage soaring to make up 46 percent of all transactions by 2021. Bank transfers (16 percent) are also expected to become more common than credit (15 percent) and debit card (eight percent) purchases.

Regardless of how accurate these projections prove to be, they provide an insight into how payment methods, technologies and customer preferences are evolving.

Financial institutions must have flexibility in their transaction processing systems to ensure they can keep up with change, while continuing to meet the needs of those who still want to use familiar payment instruments—such as regular debit and credit cards—in an increasingly diverse marketplace.

<sup>1</sup> <https://www.worldpay.com/global/insight/articles/2017-11/global-payments-report-2017>

## Preparing for an unknown future

**If there's one statement that can be made with absolute certainty about any industry, it's that businesses can never fully know what the future holds.** You can study trends, do your research and make informed predictions, but there is always a risk of external factors or unforeseen circumstances having an impact on your organization and how you operate.

These influences can range from economic challenges that escalate extremely rapidly, to regulatory changes that are announced years before they come into full effect. Even in the latter case, where organizations are given time to prepare for the shift, adjusting how core services function can be a challenge when decades-old legacy systems are involved. This is particularly true for larger institutions handling hundreds or thousands of transactions every single second.

While it's true that you can never be entirely sure what's around the corner, you can improve your readiness to adapt to any situation with modern, flexible payment processing solutions.

Here are some real-world examples that provide an insight into the value of agility for financial institutions:



Financial institutions must have flexibility in their transaction processing systems to ensure they can keep up with change.

<sup>2</sup> <https://www.emvco.com/about/deployment-statistics/>

## The growth of EMV and contactless

The U.S. payments industry passed a significant milestone back in October 2015, when liability for in-store counterfeit card fraud shifted to the party—either the card issuer or the merchant—that has not adopted EMV chip technology. As a result, there has been a big increase in EMV card deployment and transactions in the U.S. in recent years, according to EMVCo, the organization that manages the EMV standard.<sup>2</sup>

In other parts of the world, EMV has been around for much longer than in the U.S. France has been using the technology since the late 1980s, while the UK introduced 'chip and PIN' in 2004. The standard is now pretty much universal in these and several other European countries.

The U.S. has also been relatively slow to adopt another key technology that has transformed how card payments are made: contactless. In September 2017, less than one percent of face-to-face Visa transactions in the U.S. were contactless, compared to 92 percent in Australia, 91 percent in the Czech Republic, 73 percent in Poland and 63 percent in Singapore.<sup>3</sup> However, this situation looks set to change, with Visa predicting that half of face-to-face transactions in the U.S. will occur at contactless-enabled merchant locations by the end of 2018.

EMV and contactless are compelling examples of technologies that have had a huge impact on card payments, and required financial institutions to move with the times in order to minimize risk and deliver a positive, relevant experience for customers.



Financial institutions must be able to identify and prevent fraudulent card transactions in real time.

<sup>3</sup> <https://vision.visaeurope.com/blogs/the-rise-of-contactless-payments-around-the-globe>

### The evolution of 3-D Secure

EMVCo has also been responsible for the development of 3-D Secure (3DS) version 2.0. Officially launched back in October 2016<sup>4</sup>, this security protocol allows consumers to authenticate their identity with card issuers when making card-not-present purchases.

The key benefit of this exchange of data between the merchant and the card issuer, via 3DS, is a reduced risk of fraud. 3DS version 2.0 delivered a number of improvements on its predecessor, including country-specific preferences and regulatory requirements.

Jonathan Main, chair of the EMVCo board of managers, noted: "The new specification gives industry the flexibility to effectively support new technology developments as consumer payments become increasingly digitized."

Institutions that want to maximize security and deliver the best possible experience for customers need to incorporate these sorts of protocols into their card processing methods. It's much easier to keep up with any changes in their specifications with modern, adaptable transaction platforms.



### Withdrawal limits in Greece

In response to the economic crisis that hit Greece in late 2009 and the subsequent years, one of the actions taken by the government was to place a cap on how much money individuals were able to withdraw from their accounts in a day. This was an overnight change that local banks had to respond to as quickly as possible.

Institutions using modern and responsive transaction platforms had the ability to implement the withdrawal limit without too much difficulty, while those dependent on older systems had a much more complicated, time-consuming and costly job on their hands.

### PSD2 and APIs

January 13, 2018 was a highly significant date for the financial services industry in Europe, in that it marked the full introduction of the second iteration of the EU's Payment Services Directive (PSD2).

These new rules were brought into force to enable new payment services, promote competition and improve choice for customers, partly through the use of application programming interfaces (APIs) to support open banking. Open APIs make it possible for third parties to access bank systems to provide account information and payment initiation services.

This means new opportunities for businesses and healthier competition in the industry, but it also represents a major technical and logistical challenge for established financial institutions. Those who have moved beyond legacy infrastructure and adopted agile payment solutions will be the best-placed to succeed in this new environment.



## ISO 20022

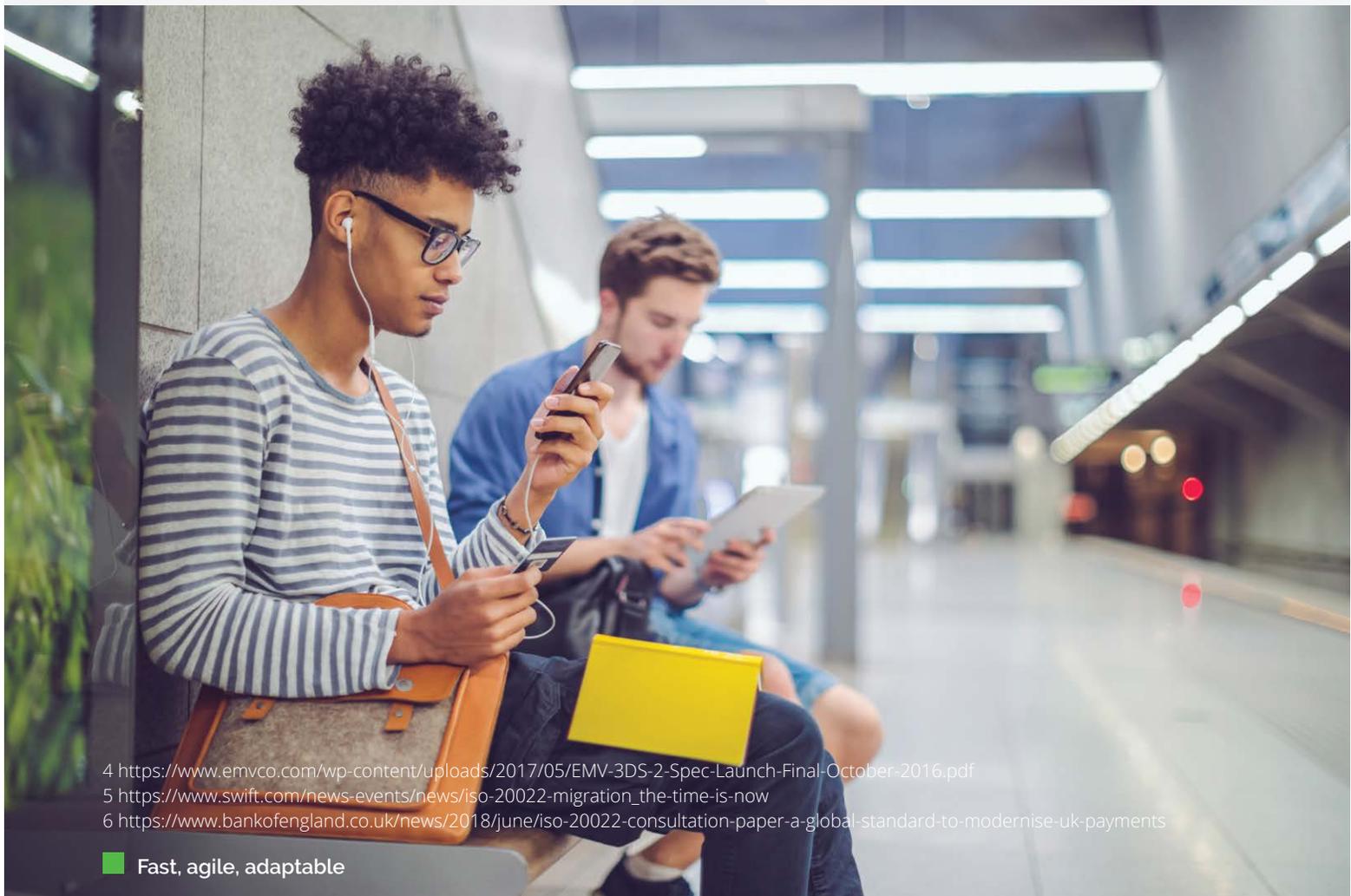
The ongoing development and adoption of the ISO 20022 global payments messaging standard provides another powerful example of why adaptability is so important for modern financial institutions.

SWIFT is currently pushing for a large-scale migration of cross-border transactions to ISO 20022<sup>5</sup>, noting that the standard has underpinned the development of instant payments and other systems in major markets all over the world.

In the UK, the Bank of England (BoE) recently held a consultation on the adoption of the messaging standard.<sup>6</sup>

Andrew Hauser, the central bank's executive director, said, "The coordinated adoption of a single standard across UK payment systems should bring many benefits for payment providers, and for the businesses and households they serve."

However, the BoE also acknowledged that the switch will involve "major upheaval for both payment providers and users of the system." Financial institutions that aren't prepared to make a smooth transition to ISO 20022 could be in for a challenging time.



4 <https://www.emvco.com/wp-content/uploads/2017/05/EMV-3DS-2-Spec-Launch-Final-October-2016.pdf>

5 [https://www.swift.com/news-events/news/iso-20022-migration\\_the-time-is-now](https://www.swift.com/news-events/news/iso-20022-migration_the-time-is-now)

6 <https://www.bankofengland.co.uk/news/2018/june/iso-20022-consultation-paper-a-global-standard-to-modernise-uk-payments>

## Balancing security and experience

**Achieving the highest standards of security and combating fraud are, of course, big priorities in card payment processing.** For financial institutions, one of the key challenges is to put effective layers of authentication and security in place, without adding too much friction to the end-user experience.

As Experian pointed out in the 2018 Global Fraud and Identity Report, businesses are “forever grappling with the tension between managing fraud and maintaining a positive customer experience.”<sup>7</sup> The research also revealed that 75 percent of companies want advanced authentication and security measures that have little or no impact on the digital customer experience.

Important as it is to keep users happy and remove friction from payments and other core financial services, it's just as vital that providers are aware of the latest fraud threats and taking action to protect against them.

As the recent EMV fraud liability shift in the U.S. has shown, stronger protections in one channel often result in criminals shifting their attention to another. Javelin Strategy & Research recently revealed that the transition to EMV had made card-not-present fraud 81 percent more likely than point-of-sale fraud.<sup>8</sup>

To take the fight to the criminals, financial institutions must be able to identify and prevent fraudulent card transactions in real time, rather than responding after the fact. One of the key requirements in this process is being able to draw on as much data as possible to maximize accuracy in transaction authentication. As well as optimizing fraud detection, this improves the overall customer experience by minimizing false declines.

With the right transaction processing solution on your side, you can achieve the flexibility required to make relevant data collection an integrated part of your payment handling process. Being able to access key pieces of customer information in real time improves your ability to determine if a purchase is genuine. It can also help to flag up instances where individuals may be spending irresponsibly and creating a credit risk.

<sup>7</sup> <https://www.experian.com/assets/decision-analytics/reports/global-fraud-report-2018.pdf>

<sup>8</sup> <https://www.javelinstrategy.com/press-release/identity-fraud-hits-all-time-high-167-million-us-victims-2017-according-new-javelin>

## Authentic flexibility

**Authentic from NCR is a system specifically designed to give financial institutions the flexibility and responsiveness required to thrive in the modern, fast-moving payments business.**

Traditionally, organizations using legacy systems would have faced a fairly long, complex and expensive process whenever they wanted to roll out a new service, function or technology. Often, the choice would have been between investing in an entirely new system and running it alongside the old, or paying for expensive custom development to enable the features.

With a fully customizable and configurable transaction processing platform, these problems—like legacy infrastructure itself—become a thing of the past.

Authentic is unique in that it provides a completely flexible workflow engine that gives you control over every step of your regular transactions, from the initial request to authorization, clearing and settlement. Each step of the process is represented as an 'action' within a graphical user interface, and you can add and remove actions as you see fit.

In the previously mentioned case where Greece introduced new withdrawal limits overnight, a local bank using Authentic was able to respond to this condition by simply adding a step to their workflow.

Authentic also supports routing to external systems for tasks such as balance checking and data collection, enabling more effective fraud detection and a better experience for genuine customers.

Crucially, this is all achievable without any need for coding or the expertise of developers or IT specialists. Members of your team have complete control over every stage of the transaction workflow, giving your organization the agility and responsiveness you need to succeed in the modern payments business.

7 <https://www.experian.com/assets/decision-analytics/reports/global-fraud-report-2018.pdf>

8 <https://www.javelinstrategy.com/press-release/identity-fraud-hits-all-time-high-167-million-us-victims-2017-according-new-javelin>

## Conclusion

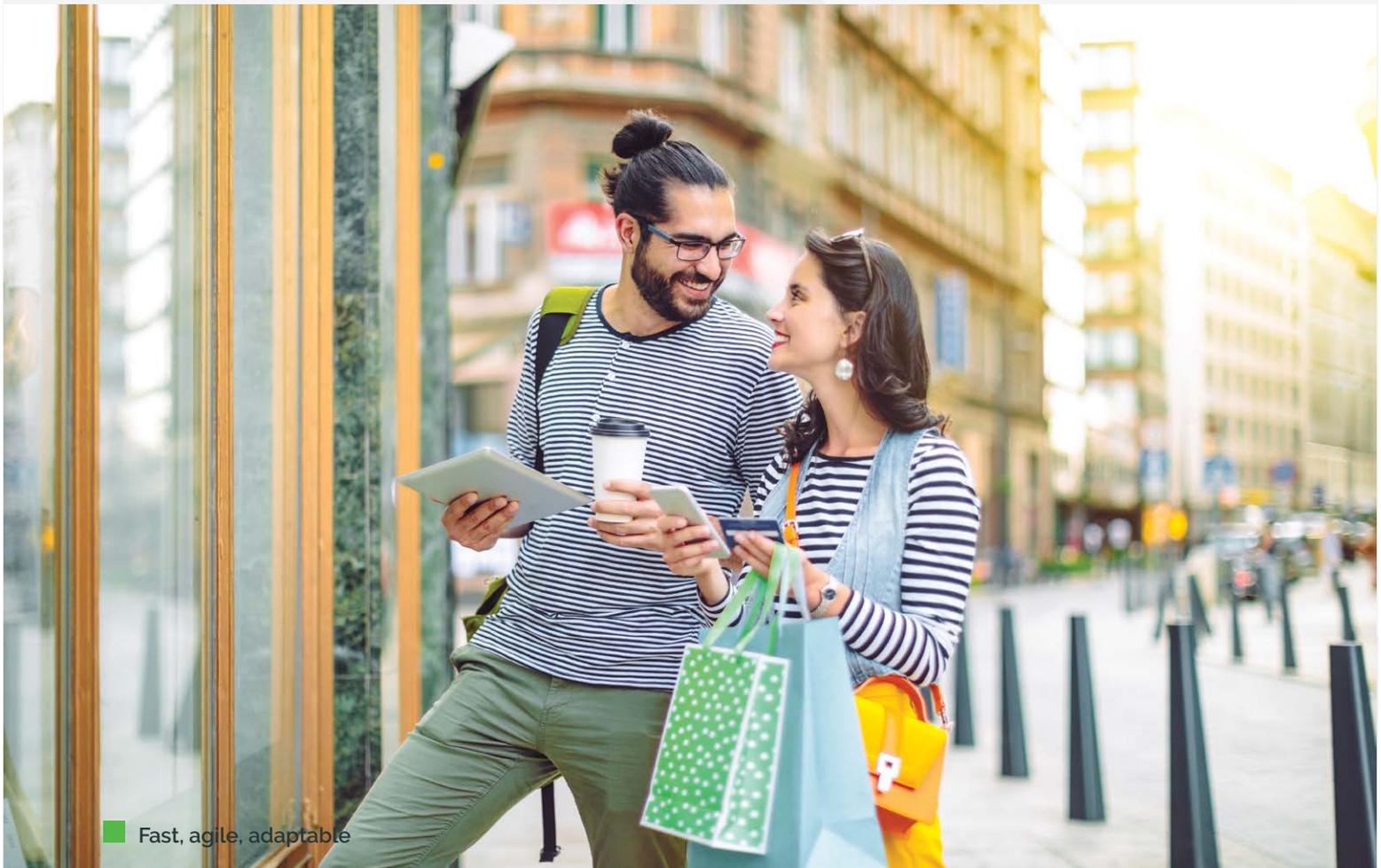
**In the financial services industry, payments provide ample evidence of just how quickly things are changing.**

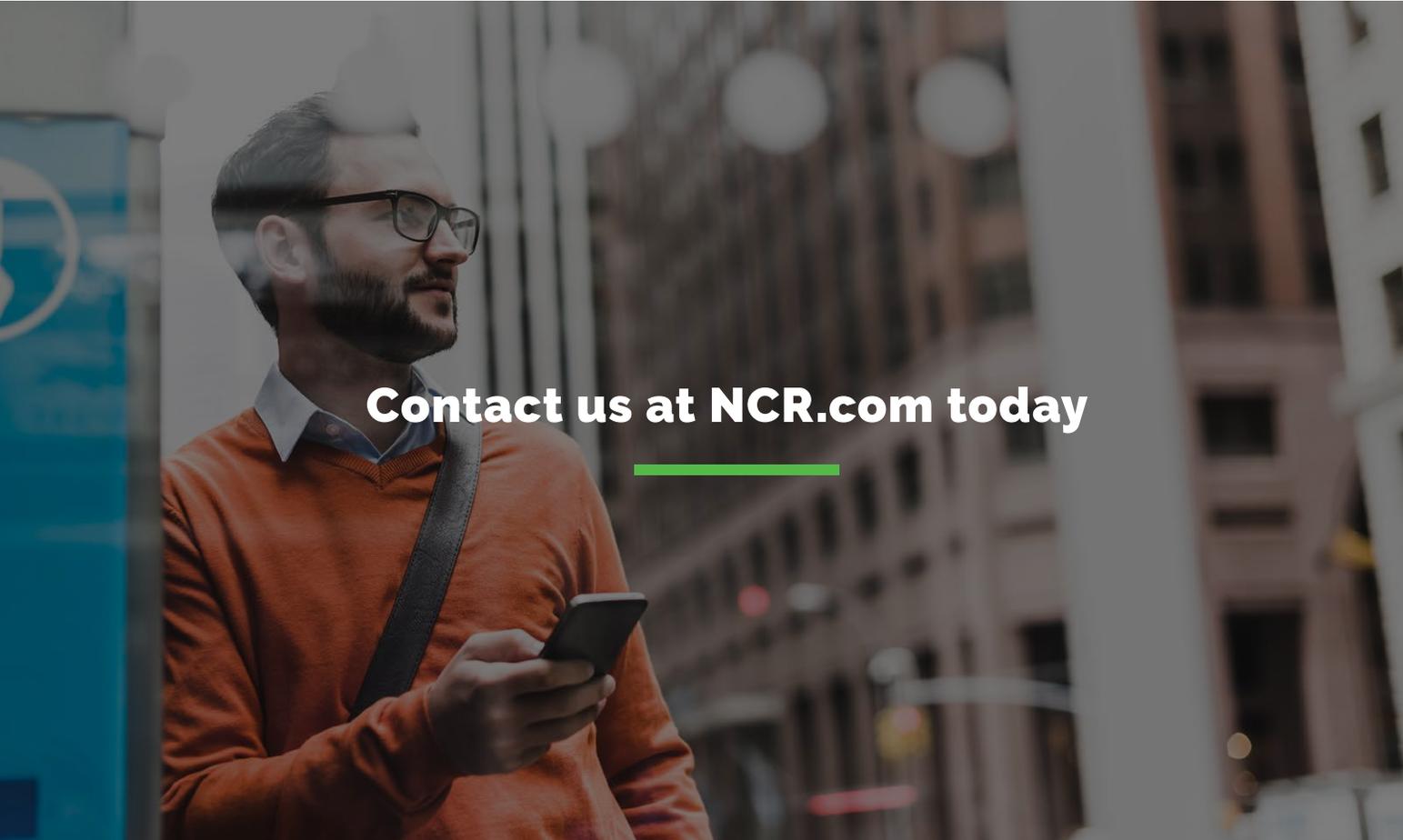
In the card processing space, during the past few years alone, successful financial institutions have shown the adaptability required to keep up with trends such as the rollout of EMV in the U.S., the ongoing development of the 3DS security standard and the explosion of digital wallets and contactless payments in several regions.

All the while, regulatory changes, intensifying competition and economic factors have shaped the industry and created new challenges for businesses to overcome.

With such a wide array of demands, responsibilities and potential opportunities all around you, you need responsiveness and agility to protect your customers and give them an efficient, positive and reliable payments experience. This has become increasingly difficult with outdated, expensive and inflexible legacy technologies.

Equipped with a transaction processing platform designed to navigate today's payments landscape, you can keep up with change, make your customers happy and look to the future with confidence.





**Contact us at [NCR.com](https://www.ncr.com) today**

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## Why NCR?

NCR is a leading global technology company that brings unexpected value to every interaction between customers and businesses. The company behind the world's **#1 ATM SelfServ brand** and ranked **#1 globally for ATM multi-vendor software**, we power 8 of the 10 highest-ranked banking apps with digital banking solutions used by 15M+ consumers.

Digital first but not digital only, our software, hardware and services help financial institutions bridge their digital and physical operations. From banking apps to branch transformation, our future-proofing technology runs the entire bank, delivering customized, secure, "anytime, anywhere" experiences that create more value for FIs and their customers.

NCR continually improves products as new technologies and components become available. NCR, therefore, reserves the right to change specifications without prior notice.

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