

Real-time digital payments will drive a cross-industry business transformation this decade



New payment methods (SoftPoS, e-money, mobile and digital wallets, account-to-account, dynamic QR codes, tap and pay, biometric payments, etc.) are leading the charge with consumers.



Laser-sharp focus on customer-centricity has given rise to experiential payments, increasing customer conversion — saving people time, helping manage their financial, personal, and business lives, and improving brand loyalty.



New-age technologies (web 3.0, blockchain, IoT, AI/ML, 5G) have enabled Embedded Payments in all walks of life, driving an exponential change in the way we do business.



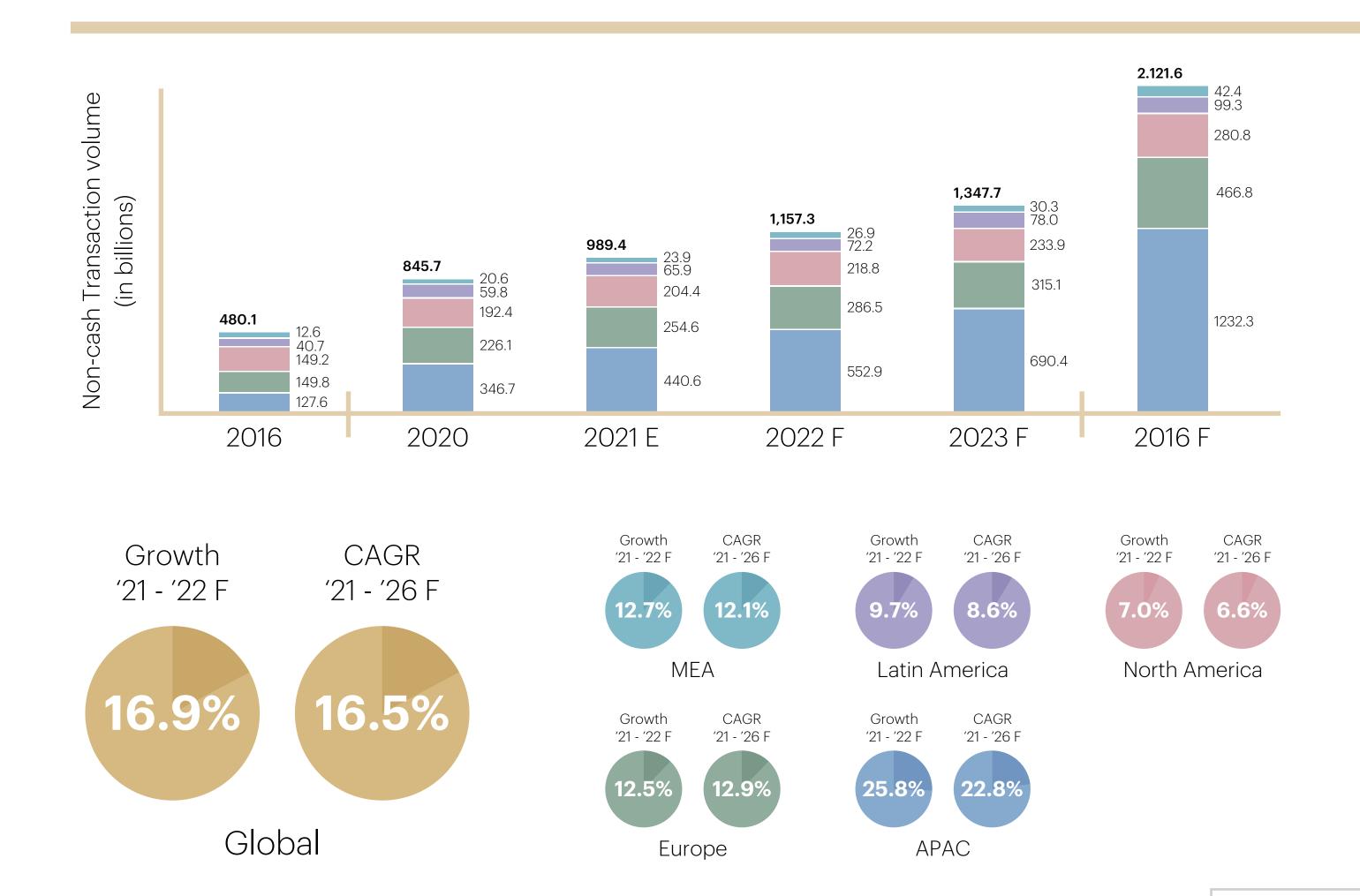
Real-time, anywhere, anytime, phygital: Payments are everywhere and driving cross-industry innovation (Embedded Payments) at an accelerated pace.



A whole new subsection of payments technology players, PayTechs, are leading innovation in payment areas such as real-time payments, cross-border payments, BNPL (buy-now-pay-later), digital wallets, super apps, Embedded Payments, and digital currencies.

Rise of digital payments:

global markets snapshot



Non-cash transactions are expected to grow at a healthy CAGR of 16.5 percent from 2022 to 2026. However, growth post-2022 is expected to remain soft due to forecast.

According to McKinsey, global payments revenue is expected to increase to \$3.3 trillion globally by 2026 (CAGR of 9 percent).

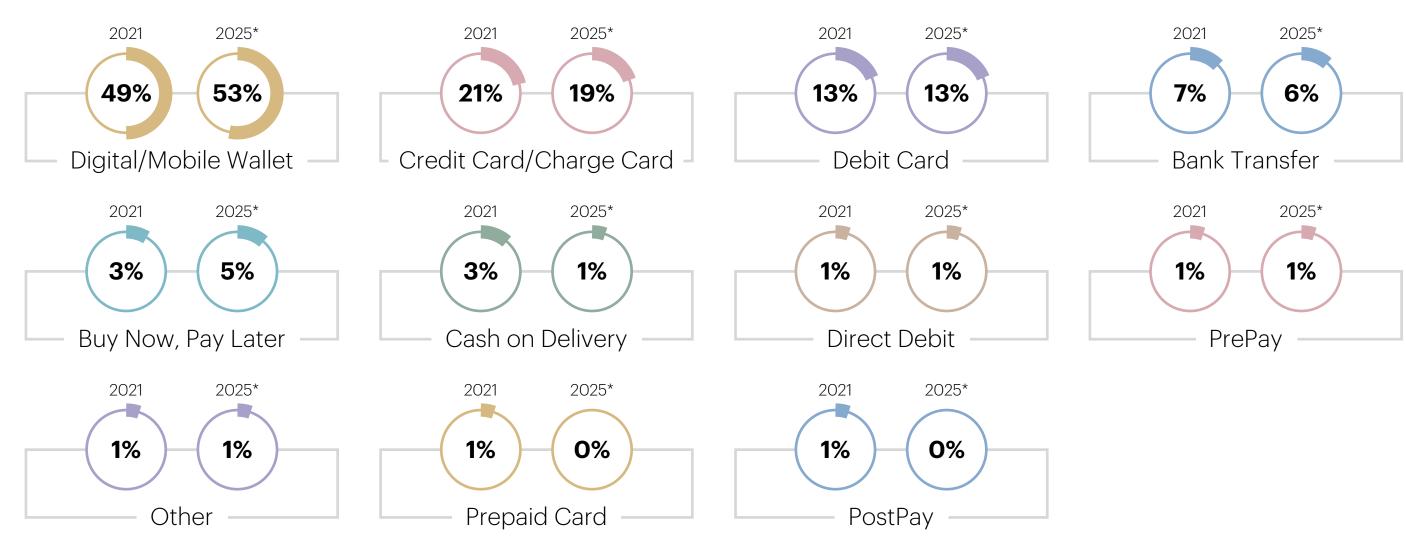
Non-cash transaction volumes in the B2B segment are expected to experience double-digit growth from 2021-26 at a CAGR of 10.7 percent globally.

The emergence of fintech in payments markets, such as embedded finance and payments, is enabling the expansion and growth of non-cash transactions.

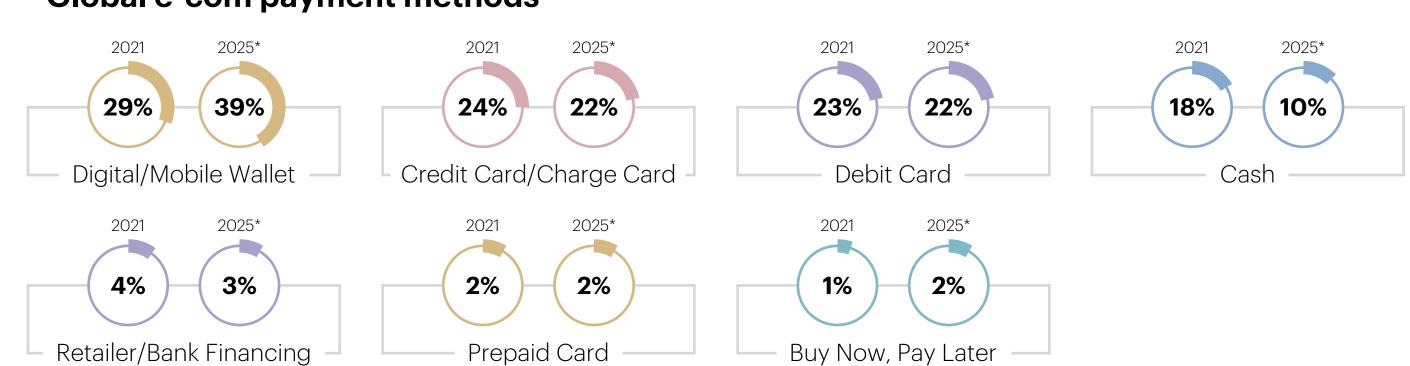
^{*} Source: ECB Statistical Data Warehouse, +BIS Statistics Explorer, countries' Central Bank Annual Reports, Mckinsey Global Payments report

Rise of digital payments: view by payment methods

Global e-com payment methods



Global e-com payment methods

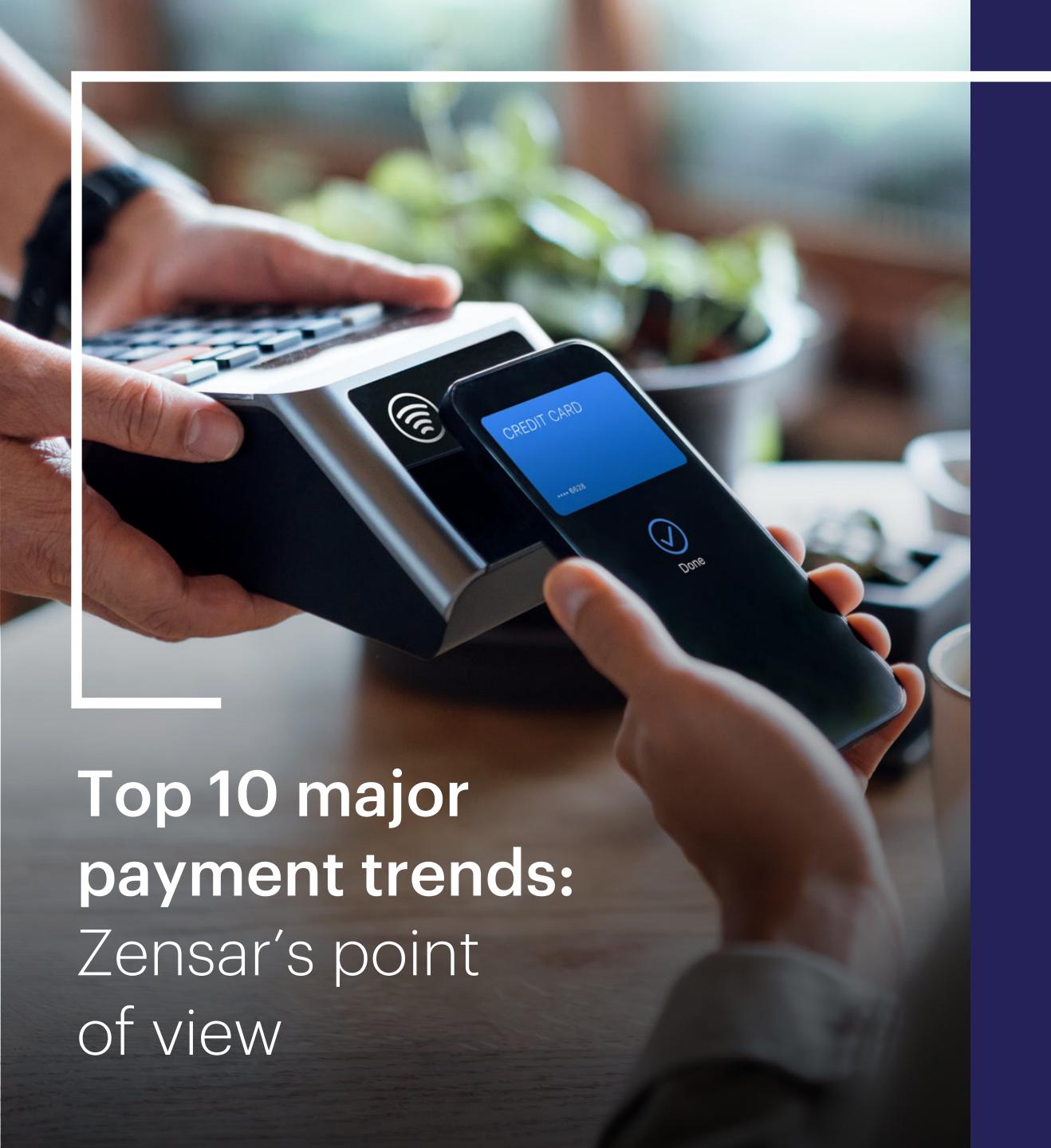


Digital/mobile wallets are expected to account for 53 percent of e-commerce transactions in 2025, making it the payment method of choice among consumers.

Digital/mobile wallets are projected to account for 39 percent of the transaction volume of global PoS payment methods in 2025, up 10 percent from 2021.

BNPL will continue to earn market share globally, while cash transactions volume is expected to decrease by eight percent in 2025.

Emerging payment solutions such as real-time payments, wallets, QR codes, digital payments, etc., are expected to grow faster at a CAGR of 19.3 percent in 2025 as against traditional payment rails and cards.





Accelerated digital products innovation



Cross-border payments: New frontiers driving growth



Embedded Payments: Enabling frictionless consumer experience (CX)



Risk and fraud: E2E transaction observability and streamlined processes



SoftPoS: Enabling payments anywhere



Payments infrastructure modernization to support new-age payments



Domestic Payments Rails: National Security & Financial Inclusion



Monetizing payment transactions data



B2B payments: Reimagining business models



The gradual acceptance of digital money, CBDC, and crypto

Major payment trends shaping the payments industry in 2023 and beyond



Accelerated digital products innovation

- Rise of super wallets: The super wallets of the future will combine a wide range of payments, banking, credit, investment, and insurance products on a single platform, allowing users to store important documents and access credit cards, bank details, biometric information, and even medical records on their smartphones.
- Adoption of cloud-based mobile POS systems will catalyze cashless transactions.
- Biometric payments: A more secure and seamless payment method beyond traditional chip and PIN authentication (multi-factor authentication).



Frictionless customer experience (CX)

- Embedded Payments provide an immersive and frictionless CX by enabling organizations to seamlessly integrate customizable payment methods into the customer purchase journey.
- Proliferation of plug-and-play APIs: FinTechs offering Embedded Payment services via APIs are increasing at an unprecedented rate.
- Embedded Payment in cross-industry apps such as Uber, Ola, Amazon, etc., will drive cross-industry collaboration for banks, BigTech, and FinTechs driving the digitization of supply chains.



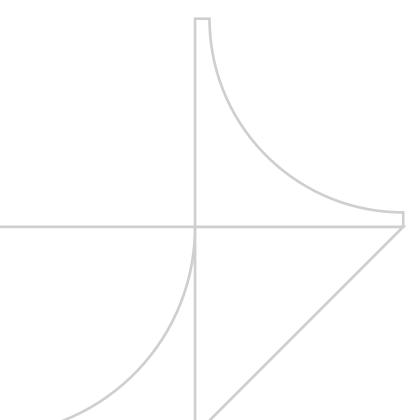
Soft PoS for payments anywhere

- According to Juniper Research, the total number of merchants deploying SoftPOS solutions will exceed 34.5 million globally by 2027, rising from six million in 2022 with an increase of 475 percent.
- SoftPos is a disruptive technology in the payments space, promoted by payment schemes like MasterCard, Visa, Rupay, etc., that see it as an opportunity to onboard millions of micro-merchants.
- Multiple digital options at PoS enable expanding payment options to broader consumer segments, thereby increasing reach and facilitating financial inclusion (QR code pay, request to pay, direct benefit transfer).



Domestic Payments Rails: National Security & Financial Inclusion

- Central banks support national payments infrastructure investments to drive real-time payments at low cost as well as financial inclusion.
- Reducing external payment rails' dependence in the interests of national security.
- API ecosystem maturity will enable interoperability.
- Promoting a digital economy enabled by fintech evolution and last-mile connectivity.





B2B payments: Reimagining business models

- Big demand for real-time payments in B2B market is driving banks to innovate in the B2B space with a CX focus.
- New-age real-time payments and settlements will impact cash and liquidity management business models. This will drive product innovation and revisiting of pricing models.
- FinTechs and BigTech are making their presence felt in B2B business via competition and collaboration with banks.
- FIs are modernizing their corporate payments infrastructure to support new-age payments in the B2B space.



Cross-border payments: New frontiers driving growth

- Real-time cross-border payments (CBP) will drive volumes across B2C and B2B. Market size of cross-border B2B payments was \$1 billion in 2021 and is expected to reach \$2.5 billion by 2030 at a growth rate of 10.8 percent, and \$200 trillion by 2027.
- CBP new models: For example, open banking-enabled cross-country collaboration between domestic payment networks, such as the UPI India and PayNow Singapore collaboration for instant and cheaper payments.
- Broader adoption of blockchain and distributed ledger-based technology for cross-border payments, expanding options to remit alternative currencies.



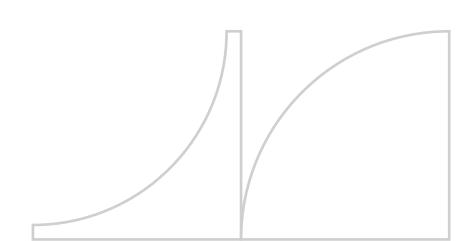
Risk and fraud: E2E transaction observability and streamlined processes

- Wider adoption of real-time payments and reduced processing windows will drive end-to-end observability with real-time monitoring to address fraud.
- Payment frauds can cost a single enterprise over \$14 million each year, and financial institutions and FinTechs are investing in streamlining processes to prevent fraud.
- Wider options for E2E transaction monitoring and observability platforms are improving false positive ratios and effective solutions – INETCO, Actimize, FICO, ACI, etc.



Payments infrastructure modernization

- New-age payments require infrastructure modernization. In two years, 70 percent of card payment services will likely be running on cloud.
- Cloud-based solutions and service-oriented architecture for new-age switching capability will see wide adoption, driving reinvention of traditional implementation models, as a service, and pricing options.
- VAC (Visa Acceptance Cloud), Visa's cloud platform for payments, will open up new use cases. So will Master Card's pilot for new cloud-based POS technology partnered by NMI and Global Payments.





Monetizing payments transaction data

- Payments providers are uniquely placed to leverage merchant and consumer data to gain an end-to-end view of transactions, opening up attractive commercialization options.
- Predictive analytics and AI will help understand (B2B and B2C) user payment behavior and identify new prospects and/or help cross-sell/up-sell new products and services.
- Offerings such as Fiserv's recently introduced data-as-a-service capability that provide near-real-time access to payments data and critical intelligence will help businesses make better-informed decisions.



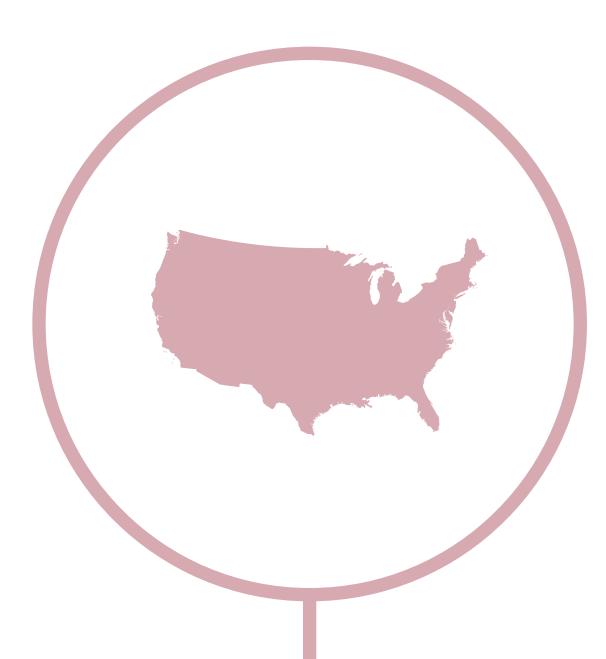
Emergence of digital money, CBDC, and crypto

- Digital currencies led by crypto will gain wider acceptability.
- 105 countries (95 percent of global GDP) are currently exploring CBDC.
- CBDC will redefine G2X transactions such as grants, remittances, and purpose-based spending.
- Metaverse is expanding and will boost usage of NFT and digital currencies.
- We anticipate a proliferation of closed-loop digital currency ecosystems such as JPMCoin.





US



FedNow RTP

The FedNow (Federal Reserve's RTP) solution is projected to launch by mid-2023 and is aimed at small and mid-sized banks.

It is an interbank real-time gross settlement system (RTGS) that provides support 24x7, 365 days a year.

The RTP volume is expected to grow 3X in the account-to-account space by 2024.

Embedded Payments

Non-financial companies such as BigTech, retailers, grocers, manufacturers, etc., are increasingly embracing Embedded Finance options. According to IDC, 73 percent of consumer payments will be processed by non-financial companies by 2030.

Faster Payments (FP) and CHAPS

Digital payments, fostered by successful evolution of open banking A2A payments (account to account).

The direct participants of the high-value payment system CHAPS (Clearing House Automated Payments System) will migrate to ISO 20022 messaging on June 19, 2023. The new RTGS core ledger and settlement engine will be introduced in the summer of 2024.

New Payment Architecture (NPA)

NPA, driven by Payment System Regulator (PSR), is a platform to regulate clearing and settlement of interbank payments in the future.

NPA can be accessed through both fixed-line and cloud-based solutions. Faster Payments transactions will migrate to NPA in 2024-2025, followed by BACS.

NPA's ISO 20022 messaging standard means enriched data fields and greater interoperability with other systems that use ISO 20022.

NPA supports multiple payment schemes such as instant payments, bulk payments, multi-payments, and priority payments with overlay services such as request to pay (RTP), confirmation of payee, etc.

UK





European Payment Initiative (EPI)

The European Central Bank-backed payment-integration initiative aims to create a pan-European payment system and interbank network to rival Mastercard and Visa, leveraging SEPA.

EPI manages cards, P2P payments, and e-wallets in an omnichannel experience.

It has launched two payments products (EPI Card and EPI Digital Wallet), to manage digital payments, with full functionalities expected by 2025.

Real-time payments

Europe's real-time payments market is expected to register a CAGR of 24.3 percent from 2022 to 2027.

The European Commission mandates the adoption of real-time payments (IP) as the preferred mode of payments.

The SRTP scheme rulebook (v3.0) is to be implemented by all participants effective November 30, 2023.

Project 27

P27 Nordic Payments: The world's first pan-Nordic real-time cross-currency payment system. P27 is a digital payment platform integrating Nordic regions for domestic and cross-border payments to enable multicurrency clearing. It will enable instant credit transfers to and from corporates and private persons via their domestic banks or payment service providers.

PAPSS (Intra-Africa cross-border payments)

PAPSS enables instant, cross-border payments in local currencies between African AfCFTA member nations.

It is a continent-wide platform for the processing, clearing, and settling of intra-African trade and commerce payments, leveraging a multilateral net settlement system.

It is a voluntary participation system that aims to ease payments constraints across Africa's complex network of more than 50 countries and almost 40 different currencies.

PayShap (SA RPP)

An initiative of the South African Reserve Bank (SARB) as part of SARB's Vision 2025 strategy.

BankServ Africa manages the Payshap infrastructure, including real-time payments and clearing.

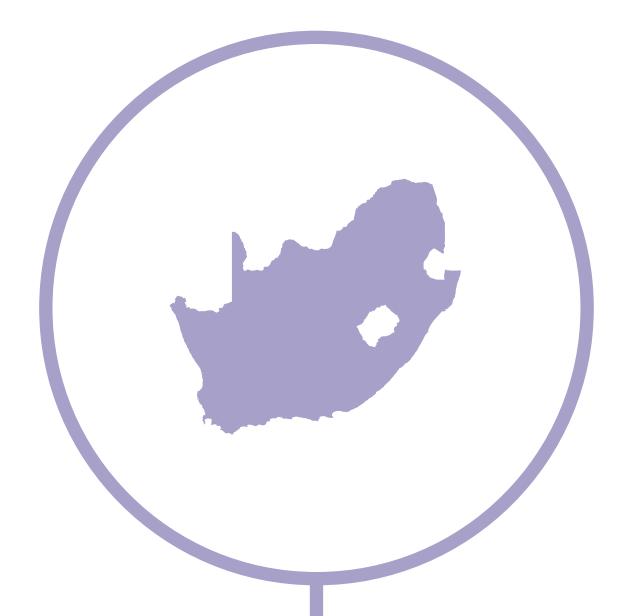
Payshap promotes the adoption of instant payments using the pay-by-proxy functionality.

It will initially be offered by four banks and later adopted by other FIs.

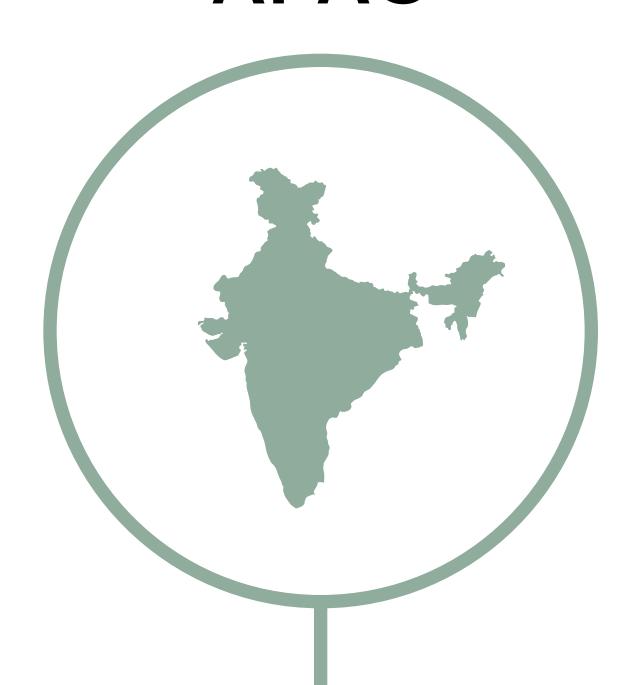
Mobile interoperability

A pilot is now underway for providing regional mobile interoperability within the SADC region enabling virtual cards attached to mobile money accounts.

African nations are adopting modern payments infrastructure to allow seamless national and cross-border interoperability to support card payments.



APAC



e₹ (Digital Rupee)

The Reserve Bank of India (RBI) has launched a Central Bank Digital Currency (CBDC) pilot in the wholesale and retail segments. The retail digital rupee (e₹-R) has components based on blockchain technology. Use of the wholesale digital rupee (e₹-W) is limited to the settlement of secondary market transactions in government securities and is expected to make the inter-bank market more efficient.

SoftPoS – contactless payments

SoftPoS allows quick and easy acceptance of card, UPI, QR code, and payment link-based payments for merchants on their existing smartphones and other devices, supporting widespread digital payments adoption. The National Payments Corporation of India (NPCI) has tied up with SBI Payments to launch RuPay SoftPoS for Indian merchants for accepting contactless payments of up to Rs 5,000 on their smartphones.

Cross-border RTP

The Monetary Authority of Singapore (MAS) and Reserve Bank of India (RBI) have announced the integration of Singapore's PayNow and India's Unified Payments Interface (UPI) real-time payment systems.

The PayNow-UPI linkage will enable users to make instant, low-cost fund transfers directly from one bank account to another between Singapore and India using cell phone numbers and UPI virtual payment addresses (VPA).

ePayment Code

The ePayments Code (Code) is a voluntary code of practice that regulates electronic payments including automatic teller machine (ATM) transactions, online payments, EFTPOS transactions, credit/debit card transactions, and internet and mobile banking. ASIC is responsible for both administering and reviewing the Code.

ASIC has made the proposal to extend the code specifically to NPP and Bulk Electronic Clearing System (BECS) and mandates Code usage for all payment types.

Modernizing payment infrastructure

The Australian Government will replace existing systems that are expensive, slow, and opaque with modern infrastructure to facilitate cross-border payments and support the G20 cross-border payments roadmap.

The final measures are expected to be implemented in 2027, ensuring that the NPP and other payment systems are interoperable with major payment systems in other countries.



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