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NILSON REPORT

ARTICLES IN THIS ISSUE

p5 **Global Brand Card Transactions Projected Worldwide**

p7 **The Threat from Quantum Computing**

p8 **Market Cap Performances by Payment Processors in 2023**

p10 **NFC Payment Cards for Two-Factor Authentication**

p11 **Advent International's Latest Deal in Europe**

p12 **US General Purpose Card Brands through 3Q 2023**

p14 **M&A in Merchant Processing and Acquiring—2023**

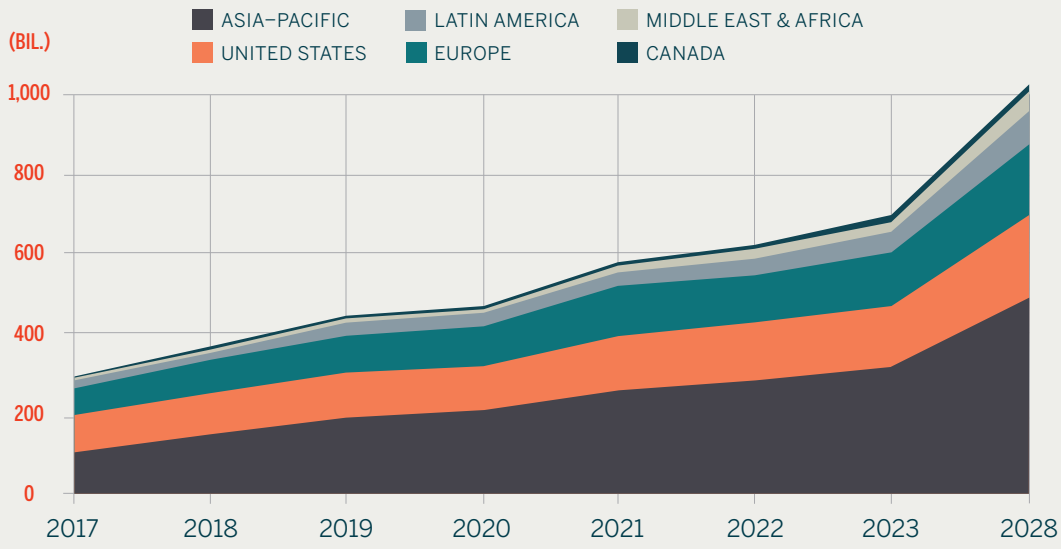
p16 **Verifone's Expanding Payments Business**

TRANSACTIONS (BIL.) IN 2023

Global Brand Card Purchase Transactions Projected Worldwide

Cards that carry the brands of UnionPay, Visa, Mastercard, American Express, JCB and Discover/Diners Club are projected to generate 1.016 trillion transactions in 2028.

→ Read full article on page 5



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CONTENTS

COVER STORY

Global Brand Card Transactions Projected Worldwide

Transactions will grow 46.6% over 2023. There will be 323.02 billion more transactions worldwide in 2028 than last year.
*p*5

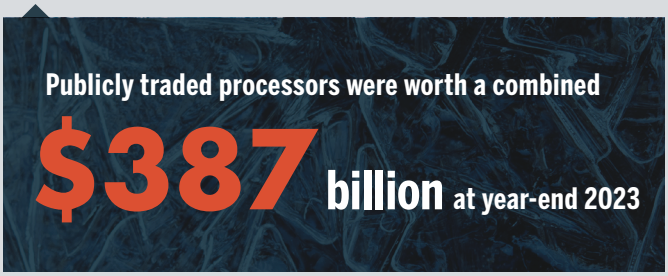


The Threat from Quantum Computing

Quantum computers will store and process exponentially more information and solve optimization problems at speeds that legacy computers can't match.
*p*7

Market Capitalization Performances by Payment Processors in 2023

Only 9 of the 41 processors listed posted gains in market capitalization, including 4 of the top 10—Fiserv, Global Payments, Shift4 and Stone.
*p*8



NFC Payment Cards for Two-Factor Authentication

The technology meets the US government's zero trust architecture requirements for secure communications.
*p*10

Advent International's Latest Deal in Europe

The company has invested more than $6.60 billion in 17 payment and fintech companies since 2008.
*p*11

US General Purpose Card Brands through 3Q 2023

Visa, Mastercard, Amex and Discover cards generated $7.547 trillion in purchase volume from January 1 through September 30, 2023.
*p*12

M&A in Merchant Processing and Acquiring—2023

There were 75 transactions in the merchant processing and acquiring sector of the payment card industry during 2023.
*p*14

Verifone's Expanding Payment Business

The company processed more than 14 billion transactions in 2023, and its payment gateway facilitated more than $500 billion in payments.
*p*16

REGULAR FEATURES

*p*13 **Digital Currency Update**

*p*17 **Investments & Acquisitions**

FEATURED IN OUR UPCOMING ISSUE

Payment Cards Projected

Figures for credit, debit and prepaid general purpose and private label payment cards in circulation worldwide are projected through December 2028.

PHOTO CREDITS: *Cover and Back Page* Shannon McInnes on Unsplash; *p2* Scott Rodgerson (top) and Erin Mckenna (bottom) on Unsplash; *p5* Alexander Pogorelsky on Unsplash; *p11* Philipp Trubchenko on Unsplash

First Look

News in brief on payment industry trends around the world.

GOCARDLESS has replaced American Express as the open banking payment provider for JustGiving, an online donation platform. JustGiving will use the fintech's Instant Bank Pay feature to collect instant one-time gifts and its Direct Debit capabilities for recurring donations. Other companies using GoCardless include Yonder, a credit card provider; Nude, a savings app for first-time buyers; Pillar, a fintech platform; and ethical lender Plend.

Pat Phelan is Managing Director of UK & Ireland and Chief Customer Officer at GoCardless, pphelan@gocardless.com, www.gocardless.com. Oliver Shaw-Latimer is Senior Director, Payments and Innovation at JustGiving, oliver.shaw-latimer@justgiving.com, www.justgiving.com.

ADYEN, a global financial platform, has entered a partnership with Straumur, a subsidiary of Kvika that processes payments in several verticals in Iceland including grocery stores, restaurants, pharmacies and gas stations. Adyen will act as the card acquiring bank for Straumur, allowing merchants to collect all payment data from all sales channels, markets and consumers on the same platform.

Tobias Lindh is Managing Director at Adyen, Nordics & Baltics, tobias.lindh@adyen.com, www.adyen.com. Lilja Ólafsdóttir is Managing Director at Straumur, lilja.olafsdottir@straumur.is, www.straumur.is.

INTERGIRO, a Sweden-based fintech that provides payment and banking infrastructure, has announced a new partnership with Silverflow, a cloud-based platform for global card processing. The collaboration gives Intergiro acquiring capabilities and detailed reporting for its payment processing services.

Johan Ryer is CCO at Intergiro, johan.ryer@ftcs.se, www.intergiro.com. Anne Willem de Vries is CEO at Silverflow, annewillem@silverflow.com, www.silverflow.com.

BOLD COMMERCE, a provider of headless checkout for omnichannel retailers and direct to consumer (DTC) brands, has launched a payment feature for its Bold Checkout product, called Payment Booster. It allows brands to expand the payment options they offer, manage multiple payment options and introduce as many payment options as they need to cater to individual shoppers. Personalized payment experiences are based on shoppers' profiles, the device and channel they're using and past purchases.

Peter Karpas is CEO, peter.karpas@boldcommerce.com, www.boldcommerce.com.

700 CREDIT, a provider to the automotive industry of products that handle credit reports, compliance, soft pulls, driver's license authentication and identity verification, has partnered with Overfuel, a mobile-first website platform that offers dealerships secure online payments for online car buyers. The alliance allows shoppers to prequalify for financing directly on a dealership's website or from their mobile phone.

Ken Hill is Managing Director at 700Credit, khill@700credit.com, www.700credit.com. Ryan Pfenninger is CEO at Overfuel, ryan@overfuel.com, www.overfuel.com.

FRAUDXCHANGE is a newly formed cooperative network for financial institutions wanting to share insights, strategies and intelligence related to fraud prevention. It offers reporting of fraudulent transactions, streamlined communication and expedited funds return between member banks and credit unions. It also monitors the dark web, employee email fraud detection and provides a fraud training platform.

David Brasfield is Founder at FraudXchange, dbrasfield@threatadvice.com, www.fraudxchange.com.

JCB INTERNATIONAL has extended its collaboration with Worldpay from FIS to enable JCB Contactless for UK merchants. Almost 20% of Worldpay POS systems in the UK are already equipped to accept JCB Contactless payments. The remaining 80% should be equipped by the end of 2024.

Ray Shinzawa is Managing Director at JCB International (Europe), rshinzawa@jcbeurope.eu, www.jcbeurope.eu. Chris Wood is General Manager for SMB International, Worldpay Merchant Solutions at FIS, chris.wood@worldpay.com, www.fisglobal.com.

PAYWAY, a payment provider, has integrated with Global Payments' Portico Virtual Terminal for customers in the US and Canada. Portico is a web-based terminal that allows businesses to securely process manually keyed and card-not-present transactions.

Dan Nadeau is CEO at Payway, dan.nadeau@payway.com, www.payway.com.

ALTERNATIVE PAYMENTS, a provider of integrated B2B payments and checkout infrastructure, has launched Collections Assist, an embedded feature designed to help companies get paid faster. It gets activated when invoices are not paid within 30 days, allowing businesses to evaluate and then send overdue invoices to collections with two clicks.

Baxter Lanius is CEO, baxter@alternativepayments.io, www.alternativepayments.io.

VOLT, a real-time payments platform, will partner with Ekko, an embedded sustainability fintech, to give its customers the no-fee option of choosing to remove a plastic bottle from the ocean at checkout. Afterwards, they are shown a real-time counter for how many bottles have been removed so far.

Jordan Lawrence is Chief Growth Officer at Volt, jordan@volt.io, www.volt.io. Oli Cook is CEO at Ekko, oli@joinekko.earth, www.joinekko.earth.

BLUEFIN, a provider of PCI-validated encryption and tokenization services to protect payment data, has reached a global agreement with Scheidt & Bachmann Fare Collection Systems to secure fare collection systems. Scheidt & Bachmann will give clients using its platform the option of using Bluefin's PCI P2PE service based on Decryptx. The company has upgraded more than 3,800 ticket vending machines with P2PE protected payment devices in the UK and Ireland for their national rail services.

Andreas Räschmeier is CEO Fare Collection Systems at Scheidt & Bachmann, raeschmeier.andreas@scheidt-bachmann.de, www.scheidt-bachmann.de. Nick Berents is VP of Marketing at Bluefin, nberents@bluefin.com, www.bluefin.com.

CORPAY ONE, a Fleetcor brand, has launched Corpay One Business Mastercard for fuel, travel and business purchasing. The card also delivers fuel rebates, fraud prevention and spend management tools.

Alan King is Group President, Vehicle Payments at Fleetcor, alan.king@fleetcor.com, www.fleetcor.com.

VOPAY, a provider of embedded financial software, has launched VoPay Verify, a service that verifies bank accounts via micro transactions. Available on February 1, it will allow enterprises to authenticate and confirm any US or Canadian bank account using VoPay's real-time transaction capabilities.

Hamed Arbabi is CEO, hamed.arbabioon@vopay.com, www.vopay.com.

JUSTIFI, a provider of a platform that enables software companies to monetize white-label fintech products including embedded payments, BNPL, lending and insurance, has partnered with Verifone. The companies have introduced a unified card-present service for in-store transactions on Verifone POS terminals.

Joe Keeley is CEO at JustiFi, joe.keeley@justifi.ai, www.justifi.ai. Tim Aden is EVP of Global Partners at Verifone, timothy.aden@verifone.com, www.verifone.com.

MPE 2024 (MERCHANT PAYMENTS ECOSYSTEM) conference & exhibition: 17th MPE puts together 1,400 global merchants & senior level merchant payment professionals to explore the latest trends and technologies and to get new business done. It is at the InterContinental Hotel, Berlin, Germany, March 12-14, 2024. For more information and to register **click here**.

INTELLICHECK'S technology for identity validation has been integrated with Versatile Credit's omnichannel lending platform. This lets Versatile's merchants authenticate customer identity documents in less than a second. This service also pre-fills applications, enhancing the customer experience. Intellicheck claims a 20% to 40% reduction in false negatives. Versatile Credit's markets include jewelry, furniture, flooring, automotive, electronics and elective medical.

Vicki Turjan is President at Versatile Credit, vicki@versatilecredit.com, www.versatilecredit.com. Bryan Lewis is CEO at Intellicheck, blewis@intellicheck.com, www.intellicheck.com.

BLAZE SOLUTIONS, a developer of a software suite for cannabis dispensaries and delivery services, can give dispensary customers the option of using their smartphone camera to scan product QR codes for self-checkout.

Scott Roehrick is VP of Ecommerce, scott@blaze.me, www.blaze.me.

ZIP has collaborated with Google Pay to enable US merchants who accept Google Pay online to integrate the Zip Pay-In-4 service issued by WebBank. A pilot is scheduled to launch this month. Consumers can use merchant Android apps that offer Google Pay for checkout or use their Android device when shopping at select sites. Merchants do not need any additional integration.

Larry Diamond is US CEO at Zip, larry.diamond@zipmoney.com.au, www.zip.co. Drew Olson is Senior Director, Engineering at Google Pay, drewolson@google.com, pay.google.com.

AIRWALLEX, a global payment and financial platform for businesses, is available on open source ecommerce platform WooCommerce. Merchants on WooCommerce can use Airwallex to accept cross-border payments made with global brand cards, Apple Pay, Google Pay and 60+ local payment methods. WooCommerce is a subsidiary of Automattic.

Ravi Adusumilli is SVP, Strategic Partnerships & EGM at Airwallex, ravi.adusumilli@airwallex.com, www.airwallex.com. Web Griebel is Head of Payment Partnerships at Woo, web.griebel@automattic.com, www.woo.com.

THE HONG KONG MONETARY AUTHORITY and THE BANK OF THAILAND have launched the FPS x PromptPay link for cross-border QR payment between Hong Kong and Thailand. Travelers between the two jurisdictions will be able to make retail payments by using their mobile payment applications to scan the Hong Kong FPS QR code and the Thai PromptPay QR code displayed by merchants.

Winn Varootbangkul is Assistant Director, Payment Systems and Financial Technology Policy Department at The Bank of Thailand, winnV@bot.or.th, www.bot.or.th.

CITCON, a payment processor, has partnered with Alipay+ to enable international ewallet payments for retail merchants in the US. International Shoppes, a duty-free retail group, will be among the first merchants to gain access to Alipay+ and its ewallet partners including Alipay China wallet; AlipayHK (Hong Kong SAR, China); MPay (Macau SAR, China); GCash (the Philippines); Kakao Pay, Naver Pay, Toss Pay (South Korea); OCBC, Changi Pay (Singapore); Public Bank (Malaysia); TrueMoney (Thailand); Hipay (Mongolia); and Tinaba (Italy).

Roseate Wagner is General Manager of North America at Ant Group, roseate.wagner@antgroup.com, www.antgroup.com. Casey Bullock is CEO at Citcon, casey.bullock@citcon.com, www.citcon.com. Matthew Greenbaum is Co-CEO at International Shoppes, mgreenbaum@ishoppes.com, www.ishoppes.com.

Global Brand Card Transactions Projected Worldwide

Consumer and commercial credit, debit and prepaid cards that carry the brands of the global networks—UnionPay, Visa, Mastercard, American Express, JCB and Discover/Diners Club—are projected to generate 1.016 trillion transactions in 2028, an increase of 46.6% over 2023.

There will be 323.02 billion more transactions worldwide in 2028 than in 2023. Those transactions include card-present and card-not-present types as well as QR code–based payments initiated by mobile phones.

In Asia–Pacific, global network cards are projected to generate 489.06 billion purchase transactions in 2028 (up 54.0% from 2023) and account for 48.16% of the worldwide purchase transaction total. It is projected that there will be 171.40 billion more transactions in 2028 than in 2023.

In the United States, it is projected that there will be 52.79 billion more transactions in 2028 than in 2023. Global network cards are projected to generate 203.60 billion purchase transactions in 2028 (up 35.0% from 2023) and account for 20.05% of the worldwide purchase transaction total.

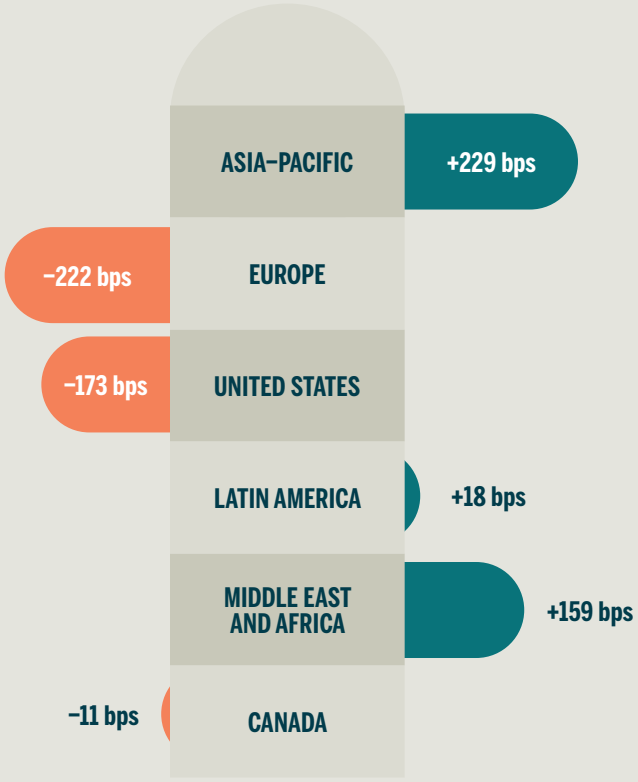
In Europe, global network cards are projected to generate 176.06 billion purchase transactions in 2028 (up 30.0% from 2023), equal to 17.34% of the worldwide total. It is projected that there will be 40.63 billion more transactions in 2028 than in 2023.

In Latin America, it is projected that there will be 26.80 billion more transactions in 2028 than in 2023. Global network cards are projected to generate 80.33 billion purchase transactions in 2028 (up 50.1% from 2023), a 7.91% share of the worldwide total.

→ *p6*

Market Shares of Purchase Transactions by Region

Five-Year Change in Basis Points (bps) 2023 vs. 2028



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In the Middle East and Africa, global network cards are projected to generate 52.76 billion purchase transactions in 2028 (up 111.5% from 2023) and account for 5.20% of the worldwide total. It is projected that there will be 27.82 billion more transactions in 2028 than in 2023.

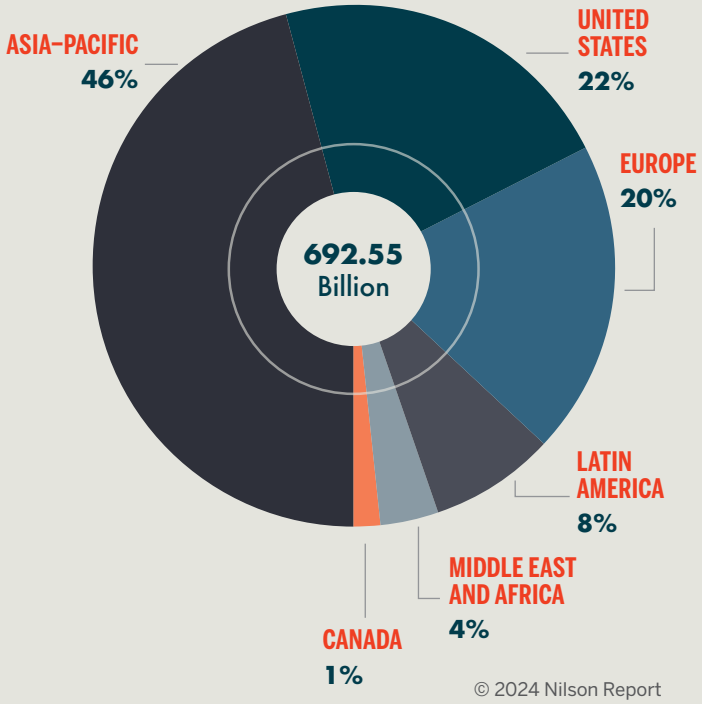
In Canada, global network cards are projected to generate 13.76 billion purchase transactions in 2028 (up 35.2% from 2023), a 1.35% share of the worldwide total. It is projected that there will be 3.58 billion more transactions in 2028 than in 2023.

The 1.016 trillion transactions figure includes global network cards only. Not included are transactions generated by domestic-only debit and credit payment card brands that are issued exclusively within single countries.

Domestic-only payment cards are led by Mir (Russia), RuPay (India), Elo (Brazil), BC Card (South Korea) and Shetab (Iran). Others include Aeon, ATH, Bancontact/Mister Cash, BankAxept, Banricompras, Cartes Bancaires, Dankort, eCash, epal/eftpos, girocard, Hipercard, Interac, J-Debit, KNet, Mada, Multibanco, Nyce, PagoBancomat, PostFinance, Pulse, Redcompra, Samsung Card, SmartPay, Star, Troy, Verve and more than 60 others.

Prior issues: 1233, 1211, 1189, 1167, 1145, 1123, 1101, 1078

Purchase Transaction Market Shares by Region in 2023



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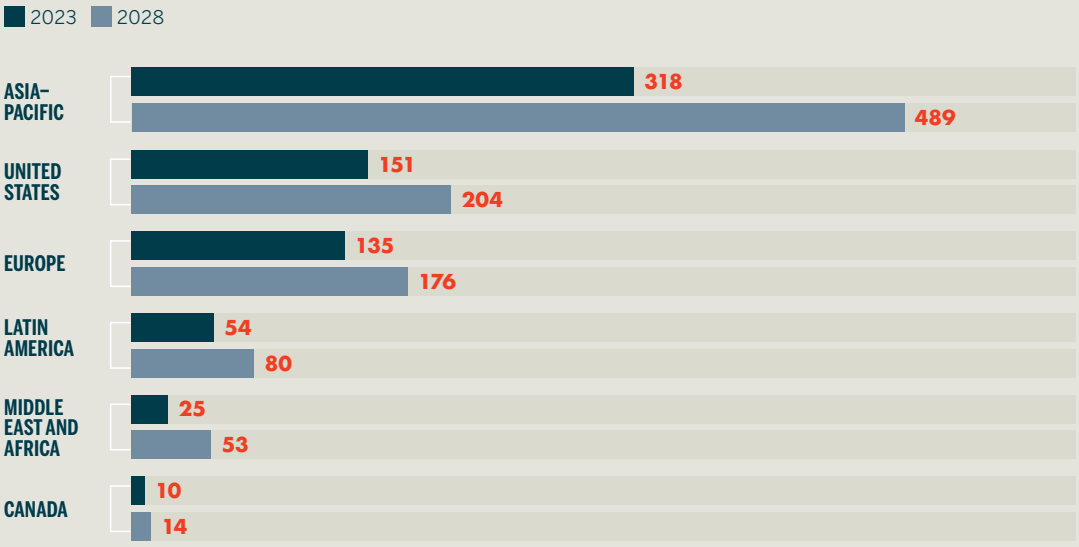
Global Brand Purchase Transactions Worldwide 2023 vs. 2028

Billions



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The Threat from Quantum Computing

Quantum computers can perform all the operations of a legacy computer. They also can store and process exponentially more information and solve optimization problems at speeds that legacy computers can't match. They will not replace legacy computers, but they will be valuable in performing functions such as computing probability.

Quantum computer models leverage the principles of quantum mechanics—the physics concerned with the behavior of subatomic particles. Instead of the bit (0 or 1) used to process data in legacy computers, quantum computers use the qubit, which can act as both a 0 and a 1.

There are logical qubits and physical qubits. A logical qubit is encoded using a collection of physical qubits to protect against errors. Physical qubits are required to control or produce a single logical qubit.

Manufacturer QuEra, via Amazon Braket, the cloud computing service of Amazon Web Services, offers commercial access to a 256-qubit quantum computer. Last month, a team that included QuEra, Harvard and MIT demonstrated error-corrected quantum algorithms on 48 logical qubits.

Manufacturing a 300 logical qubit computer is in sight. On 300 logical qubits, a quantum computer will have more processing power than if every atom in the universe was converted into a transistor and used for computation.

Top financial institutions worldwide and the global card networks are already working on commercial applications of quantum computers.

Those companies, payment card and SIM card manufacturers, payment processors and other payment industry companies are also concerned with the security threat from quantum computing, particularly threats arising from the exposure of the current asymmetric public key/private key (PKI) encryption standard used to protect financial transactions, as well as breaches to systems. Logical qubits have the processing power to defeat PKI encryption.

The US government has directed financial institutions to establish quantum secure infrastructures by year 2035. However, the consensus among manufacturers and security experts is that quantum computers are at the same level of readiness to enter the market as AI was five years ago. One, Sundar Pichai, the CEO at Google parent Alphabet, believes that the time before threats materialize might be only two to five years.

IN THIS ARTICLE

Qrypt

Hackers associated with foreign governments, crime syndicates and industrial companies are preparing to use the first generation of publicly available quantum computers on previously stolen encrypted data already in their hands.

Companies that offer services to protect financial transactions and systems include IBM, Microsoft, PsiQuantum and Qrypt.

Qrypt says that point-to-point encryption technology currently used in the payment card industry has a flaw in the algorithm that will easily be hacked by quantum computers. The company maintains that strong user identity management will not protect data against quantum computers.

The brute force computational power of quantum devices also poses risks to cryptocurrencies, where a hack of the largest wallet providers would reduce the value of the crypto to zero because the trust in the system would no longer exist.

Qrypt provides end-to-end encryption that secures data across applications, clouds, services and infrastructure. Its technology eliminates the exchange of public and private encryption and decryption keys used in PKI, replacing them with identical keys independently generated at the end points of a secure tunnel.

In financial services, Qrypt's technology can be used to protect ATMs, online banking, mobile banking, interbank networks, trading platforms and retail purchases at the point of sale.

INTERVIEWED FOR THIS ARTICLE

Denis Mandich is Chief Technology Officer at Qrypt in New York, denis@qrypt.com, www.qrypt.com.

Prior issues: 1225, 1218, 1156

Market Cap Performances by Payment Processors in 2023

Every month the Nilson Report publishes a snapshot of the stock market performances of 137 companies that earn all or a significant portion of their revenues from customers in the payment card industry.

Among that group, the 41 payment processors that were publicly traded for the full year are shown here. Those processors are headquartered in 18 countries and territories. Their stocks trade on 11 different exchanges.

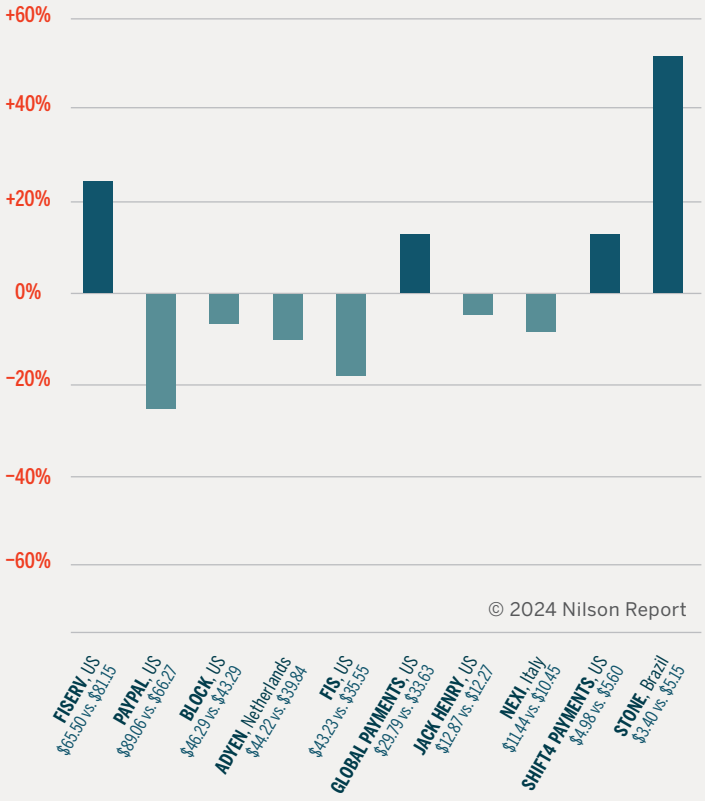
Collectively, those 41 companies held a combined market capitalization of $420.66 billion in January 2023. That figure declined 8.0% to $387.09 billion by the end of the year.

Only 9 of the 41 processors posted gains in market capitalization, including 4 of the top 10—Fiserv, Global Payments, Shift4 and Stone. The other 5 with increases were dLocal, PayTM, PagSeguro, Evertec and Network International.

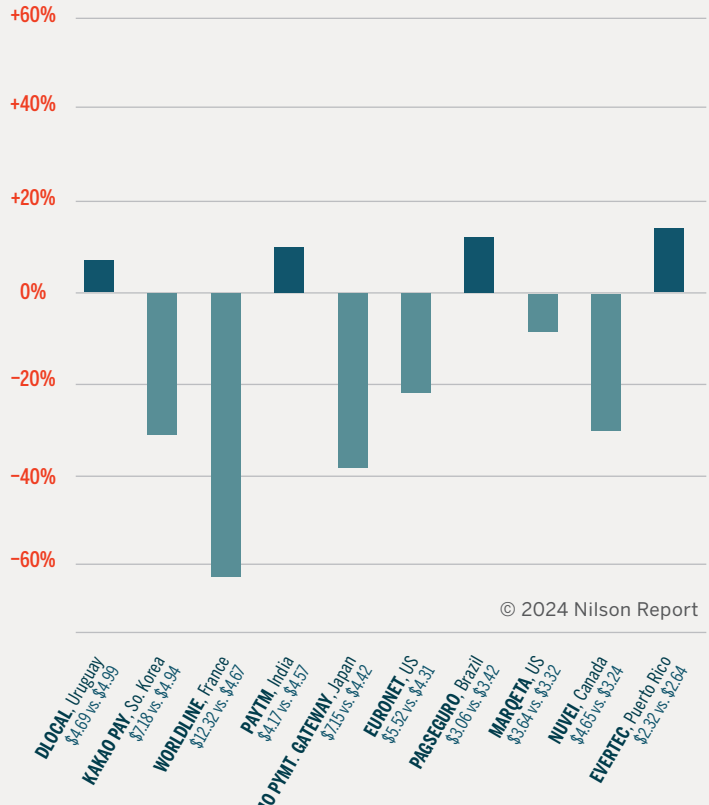
Publicly Traded Payment Processors—Market Capitalization Change

January 2023 vs December 2023

Processors Ranked 1-10 at year-end 2023



Processors Ranked 11-20 at year-end 2023



Of the nine companies posting gains, five traded on the New York Stock Exchange, two on Nasdaq, one on the London Stock Exchange and one on the National Stock Exchange of India.

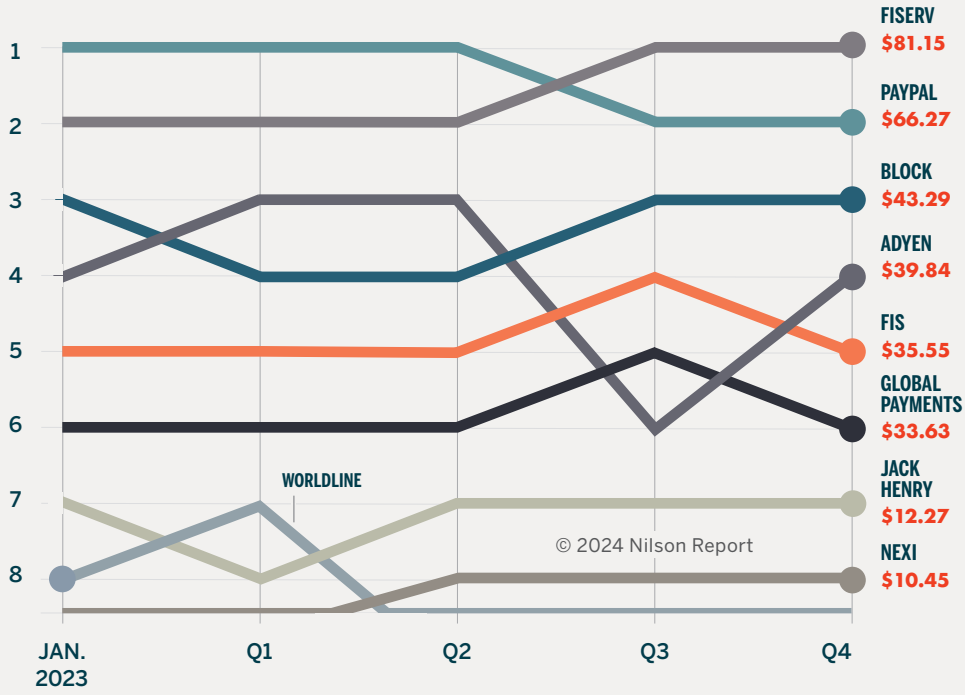
No company in the bottom half of the rankings had gains in market cap.

Brazil-based Stone, ranked 10th largest among all processors based on market capitalization at year-end 2023, had an increase of 51%, moving it up from 18th.

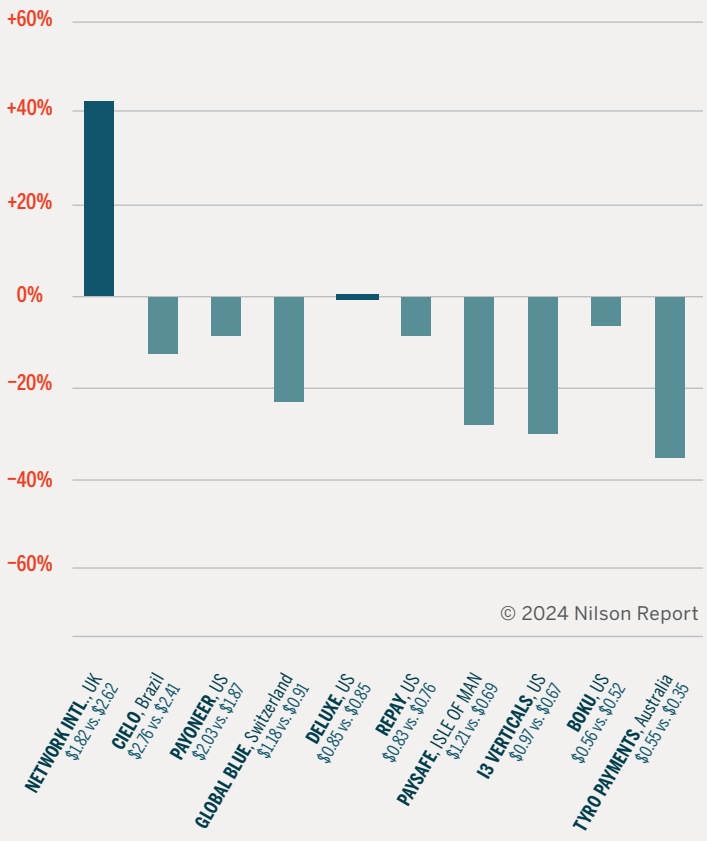
Worldline, which started the year ranked 8th, experienced a 62% decline in its market cap, falling to 13th place.

Prior issues: 1254, 1252, 1250, 1248, 1246, 1244, 1242, 1240, 1238, 1236, 1234

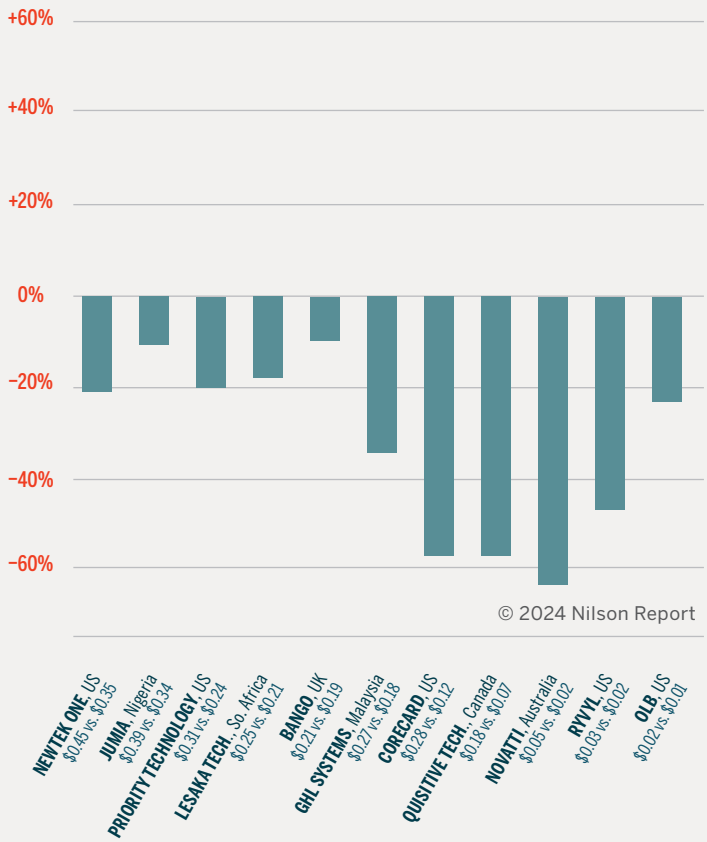
Top Processors at Year-End 2023 by Market Cap



Processors Ranked 21-30 at year-end 2023



Processors Ranked 31-41 at year-end 2023



NFC Payment Cards for Two-Factor Authentication

The cryptography used in Arculus technology from CompoSecure leverages the secure elements in NFC-enabled payment cards to provide a FIDO-certified, two-factor authentication service to any credit or debit card issuer worldwide.

CompoSecure, the top provider worldwide of metal payment cards, has been developing Arculus technology for several years. Its first product came on the market in 2021—a credit card-sized hardware wallet for owners of cryptocurrencies and other digital assets.

This new service, Arculus Authenticate, is comprised of an applet, software development kit (SDK) and a back-end authentication server. It works with NFC-enabled metal and plastic cards certified by the global networks.

The security value of usernames and passwords is in a steady decline. Both have been thoroughly compromised by relentless data breaches. Criminal elements are known to be storing troves of hacked data, including captured usernames and passwords, while waiting for quantum computers to become available. Quantum computers will have enough processing power to break down any encryption protection.

At the same time, two-factor authentication is growing in value, particularly a one-time password (OTP) sent to a consumer's smartphone. However, this too has become problematic, as the SMS messages often used to deliver OTPs are subject to hacking. SIM cards inside smartphones are also increasingly vulnerable, subject to compromise via SIM swap attacks, phishing and social engineering campaigns.

NFC-enabled payment cards are ubiquitous and have educated consumers about tapping, rather than inserting or swiping cards, to send data from a card to a POS terminal.

Arculus incorporates tapping to send the credentials in a payment card to the user's smartphone, triggering the two-factor authentication. Payment cards hold Level 3 hardware-based authentication ratings from the National Institute of Standards and Technology, which is the highest rating.

Arculus Authenticate uses elliptic curve-based cryptography keys, which are superior to the RSA keys commonly found in public key cryptography. The technology meets the US government's zero trust architecture requirements for secure communications.

IN THIS ARTICLE

CompoSecure

When evaluating return on investment, Arculus Authenticate impacts a card issuer's top line and bottom line. On the top line, revenue gains can be expected from increased customer engagement and deepening brand awareness. On the bottom end, savings are expected from reduced losses to fraud and call center support costs.

The technology replaces usernames and passwords used to confirm identity, log in to an account, verify a high-value transaction, authenticate a customer's new device and confirm a consumer's location. It can operate in-app, out of app, on a desktop device (Microsoft, Mac, Linux) and on mobile devices.

INTERVIEWED FOR THIS ARTICLE

Jon Wilk is Chief Executive Officer at CompoSecure in Somerset, New Jersey, jwilk@composecure.com, www.composecure.com.

Prior issues: 1253, 1205, 1196, 1190, 970



Advent International's Latest Deal in Europe

The fourth M&A phase involves the purchase of payment processors that serve small to midsized merchants, marketplaces and digital wallets

Private equity firms have significantly contributed to the four phases of merger and acquisition activity in the payment card industry over the last 20 years.

The initial phase involved buying large processing businesses from banks, and the second, scaling those investments through horizontal deals that involved buying additional processors.

Over the last five years, the third M&A phase has been taking shape. It involves adding software specialists, payment gateways and other applications to core transaction processors to create vertically integrated companies. This generates more revenue per merchant and makes it more complicated for a merchant to switch to a new processor.

The fourth phase, which is just becoming evident, involves the purchase of payment processors that serve small to midsized (SMBs) merchants, marketplaces and digital wallets. And as with earlier deals involving larger processing companies, there is the expectation that these SMB processors will become vertically integrated providers of all key payment-related services.

Advent International has been a prominent participant in all four phases of M&A activity in the payment card industry. The company has invested more than $6.60 billion in 17 payment and fintech companies since 2008.

The firm's successes in Europe in the first three M&A phases include the acquisition of Nexi, its subsequent merger with Nets, and the acquisition of Concardis and its merger with Nets.

Since 2022, Advent's participation in the fourth wave of M&A activity has involved acquisitions of and transactions between Planet Payment, Mangopay, Thredd, Medius and myPOS. All are based in Europe, and all can be components in a vertically integrated payment service that supports SMBs, marketplaces and wallets.

Advent created Circle, a payment and technology platform, to acquire myPOS. This year it expects to add merchant loans and software services to Circle through partnerships and new acquisitions.

MyPOS, a payment services company, had revenues of $60.6 million (up 39%) in 2022. It owns its processing technology and payment gateway. The company offers 170,000 merchant customers in 30 European countries instant settlement of payment card transactions they accept and ties those card receipts to a Mastercard business debit card to enable immediate spending opportunities. MyPOS holds e-money licenses in Ireland and the UK.

Smaller companies in Europe have not been well served by the region's legacy processors. This provides opportunities for Advent's UK-based myPOS, as well as its direct competitors SumUp and Zettle by PayPal.

IN THIS ARTICLE

Advent International
GLOBAL PRIVATE EQUITY

INTERVIEWED FOR THIS ARTICLE

Fabio Cali is Managing Director at Advent International in London, UK, fcali@adventinternational.co.uk, www.adventinternational.com.

Prior issues: 1241, 1228, 1217, 1186, 1184, 1019, 990, 962

US General Purpose Card Brands through 3Q 2023

Credit, debit and prepaid cards issued in the United States carrying the Visa, Mastercard, American Express and Discover brands generated $7.547 trillion in purchase volume for goods and services from January 1 through September 30, 2023, up 6.9% compared to the first nine months of 2022.

Credit card purchase volume was $4.310 trillion, up 7.4%. Purchase volume generated by credit cards accounted for 57.10% of combined credit and debit card purchase volume, up from 56.84% for the same period of 2022.

Visa's share of credit card purchase volume slipped to 51.93% from 52.20%. Mastercard's share grew to 24.61% from 24.15%. Amex's market share dipped to 19.73% from 19.79%. Discover declined to 3.73% from 3.86%.

Debit card purchase volume grew 6.3% to $3.237 trillion. Visa's share was 73.30%, up from 72.62% after nine months of 2022. Mastercard's share of 26.70% compared to 27.38% in the same period of 2022.

Purchase transactions for goods and services from January 1 through September 30, 2023, using credit, debit and prepaid

US General Purpose Cards

Jan. 1-Sept. 30, 2023, and Change vs. Jan. 1-Sept. 30, 2022

Brand/Type	Dollar Volume (Bil.)						Purchase Trans.	
	TOTAL	CHANGE	PURCHASES	CHANGE	CASH	CHANGE	(BIL.)	CHANGE
Visa Credit	$2,273.28	6.8%	$2,238.25	6.9%	$35.03	2.2%	24.75	7.7%
Mastercard Credit	$1,091.53	9.7%	$1,060.47	9.5%	$31.06	18.1%	11.35	10.7%
American Express Credit	$854.18	7.2%	$850.23	7.1%	$3.95	18.0%	5.69	7.4%
Discover Credit	$171.87	4.0%	$160.77	3.7%	$11.10	7.3%	2.75	3.1%
CREDIT CARD TOTALS	**$4,390.85**	**7.5%**	**$4,309.72**	**7.4%**	**$81.14**	**9.2%**	**44.54**	**8.1%**
Visa Debit & Prepaid	$2,795.19	6.2%	$2,372.95	7.3%	$422.24	0.3%	48.80	8.6%
Mastercard Debit & Prepaid	$1,018.61	3.2%	$864.44	3.6%	$154.17	0.6%	18.02	3.9%
DEBIT CARD TOTALS	**$3,813.80**	**5.3%**	**$3,237.39**	**6.3%**	**$576.41**	**0.4%**	**66.82**	**7.3%**
Visa Totals	$5,068.47	6.5%	$4,611.20	7.1%	$457.27	0.4%	73.55	8.3%
Mastercard Totals	$2,110.14	6.4%	$1,924.91	6.8%	$185.23	3.2%	29.36	6.5%
Visa & Mastercard Totals	$7,178.61	6.5%	$6,536.11	7.0%	$642.50	1.2%	102.92	7.8%
CREDIT & DEBIT CARD TOTALS	**$8,204.65**	**6.5%**	**$7,547.11**	**6.9%**	**$657.55**	**1.4%**	**111.36**	**7.6%**

Includes all consumer, business and commercial credit, debit and prepaid cards. American Express includes business from third-party issuers, prepaid and alternative payment solutions.

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cards issued in the US reached 111.36 billion, up 7.6%. This was an increase of 7.88 billion transactions over the first nine months of 2022.

Visa and Mastercard debit cards accounted for 60.00% of all debit and credit card purchase transactions, down from 60.19% in 2022. Credit cards with American Express, Discover, Mastercard and Visa brands accounted for the remaining 40.00% of purchase transactions, up from 39.81%.

As a percentage of all credit and debit card purchase transactions, Visa debit cards held a 43.82% market share, up from 43.44%. Credit cards with the Visa brand accounted for 22.23% of all purchase transactions, up from 22.20%.

Debit cards with the Mastercard brand held a 16.18% share of combined credit and debit card purchase transactions, down from 16.75%. Mastercard credit cards had a 10.19% share, up from 9.91%.

American Express cards accounted for 5.11% of all purchase transactions, essentially unchanged from 5.12%. Discover cards had a 2.47% share, down from 2.58%.

The average purchase amount of a credit card transaction was $96.76, down 0.6%. The average purchase amount of a debit card transaction was $48.45, down 0.9%.

Prior issues: 1233, 1210, 1188, 1181, 1175, 1169, 1165, 1161, 1138, 1115, 1092, 1069, 1046

Digital Currency Update

The intersection of card and crypto payments

JCB has partnered with **Idemia** and Soft Space to launch the second phase of a CBDC-based offline P2P payment pilot. The test will allow person-to-person transfers of CBDC using cards and mobile phones without relying on internet connectivity.

Alchemy Pay, a fiat-crypto payment gateway, has entered into a partnership with Worldpay from FIS to access Visa and Mastercard payment rails. The company has also added BINs for a **card product** in Hong Kong. Customers can apply for the card using Alchemy Pay's Crypto Card mini app on the Binance Marketplace.

Coinbase, a digital currency exchange, was granted a virtual asset service provider (VASP) registration in France. The company will be able to provide digital asset custody services, facilitate buying or selling of digital assets in legal tender and trading digital assets against other digital assets.

Zebec has launched its web3 payment, real-time payroll and prepaid Zebec Instant Card in Japan. The business allows for stablecoin payments (USDC and ERC). Payments with a Japan-native stablecoin (JPYZ) will be available soon.

Codego, an issuer of white-label prepaid, debit and corporate Visa and Mastercard crypto cards, has launched CodegoPay, an app that combines IBAN accounts in Europe with crypto services. CodegoPay supports card spending, crypto-to-fiat asset conversion and SEPA transfers in 33 countries.

Wirex, a crypto app and card provider, has partnered with Coca, a digital wallet provider with 700,000 users, to launch a Mastercard debit card that will accompany Coca's Multi-Party Computation (MPC) wallet.

Circle, issuer of the USDC and EURC stablecoins, submitted a draft registration statement with the US Securities and Exchange Commission related to an initial public offering. The company was also granted a conditional registration as a **digital asset service provider** (DASP) by the French Financial Markets Authority.

Reuters reported that CBDC transactions managed by the **Reserve Bank of India** exceeded 1 million per day at the end of 2023. The e-rupee was linked to India's Unified Payments Interface, supporting employee benefit payments.

Yonhap reports that the **Bank of Korea** signed a 15-month, $7-million agreement with LG CNS to develop a wholesale CBDC for that country's trials of digital currencies.

South Korea's **Financial Services Commission** proposed a ban on crypto purchases using credit cards, citing "...illegal outflow of domestic funds overseas due to card payments on overseas virtual asset exchanges, money laundering, speculation, and encouragement of speculative activities."

The **European Central Bank** has invited participants to take part in trials of central bank money settlement as well as in experiments with mock settlement in a test environment. The trials will include three Eurosystem wholesale financial transaction systems, recorded on distributed ledger platforms.

The **Bank of Spain** will partner with a consortium of Cecabank and Abanca to test a wholesale CBDC for securities settlement as well as the exchange of other wholesale CBDCs issued by other central banks. This effort is separate from the ongoing trials of CBDCs by the Bank of Spain and the European Central Bank.

M&A in Merchant Processing and Acquiring—2023

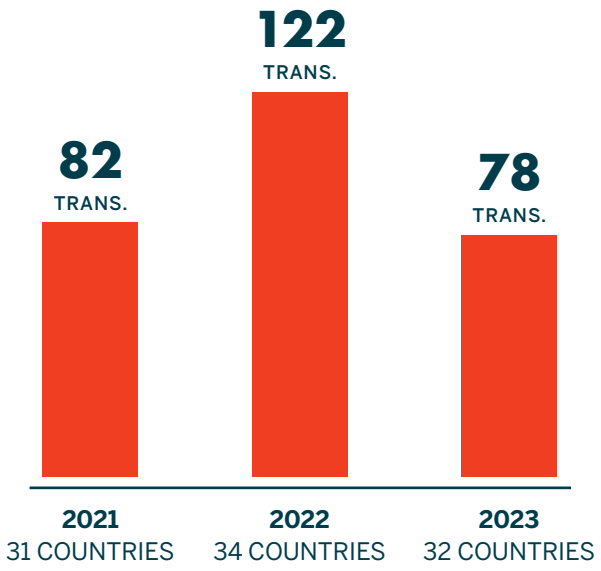
There were 75 merger and acquisition (M&A) transactions in the merchant processing and acquiring sector of the payment card industry during 2023. Those deals occurred in 32 countries. There were 25 deals in the US, 23 in Europe, 12 in Asia-Pacific, 7 in the Middle East and Africa, 6 in Latin America and 2 in Canada.

The number of M&A deals in this sector declined from 122 transactions in 2022 in 34 countries.

Among all 75 M&A deals in 2023, financial details were made known for only 17 transactions. The combined value of those transactions was $19.65 billion.

In 2022, the monetary value for the 25 deals for which financial details were provided was $7.95 billion.

The largest transaction in 2023 was the announced takeover of US-based Worldpay by private equity firm GTCR for $11.70 billion. Worldpay was the second largest merchant acquirer worldwide based on transactions processed in 2022. GTCR will be 55% owner of Worldpay. Seller FIS will retain 45% of the equity.



Asia–Pacific

COMPANY	COUNTRY	BUYER	AMOUNT (MIL.)
Acemoney	India	Radiant Cash Mgmt.	$120.7
AXS	Singapore	Tower Capital	*
Click	Uzbekistan	Uzum	*
OGS PayLab	India	PayTabs	*
Paytm	India	Resilient Asset Mgmt.	$628.0
Paytm	India	Alibaba	$125.0
Rabbit Line Pay	Thailand	Line Man	*
Saweria	Indonesia	IDN Media	*
Shang Wu Tong Network	China	Airwallex	*
Smile Pay + SSG Pay	South Korea	Toss	$537.0
Sony Payment Services	Japan	Blackstone	$280.0
Zecpe	India	Cashfree Payments	*

Middle East and Africa

COMPANY	COUNTRY	BUYER	AMOUNT (MIL.)
Cloud Invest	Morocco	Equiti	*
Moment	South Africa	joint venture	*
Network International	UAE	Brookfield Asset Mgmt.	$2,760.0
PayForce	Nigeria	FairMoney	*
Paymennt.com	UAE	Hala	*
Thumbzup	South Africa	Ecentric Payment Sys.	*
Vantage Payment Systems	Morocco	Cross Switch	*

Latin America

COMPANY	COUNTRY	BUYER	AMOUNT (MIL.)
Fuex Payments	Puerto Rico	Zenus Bank	*
GCS	Dominican Rep.	Grupo Popular	*
Gestopago	Mexico	Puntored	*
Skilopay	Brazil	Belvo	*
Skytef	Brazil	Fiserv	*
Yacare	Argentina	Fiserv	*

* Terms not disclosed.

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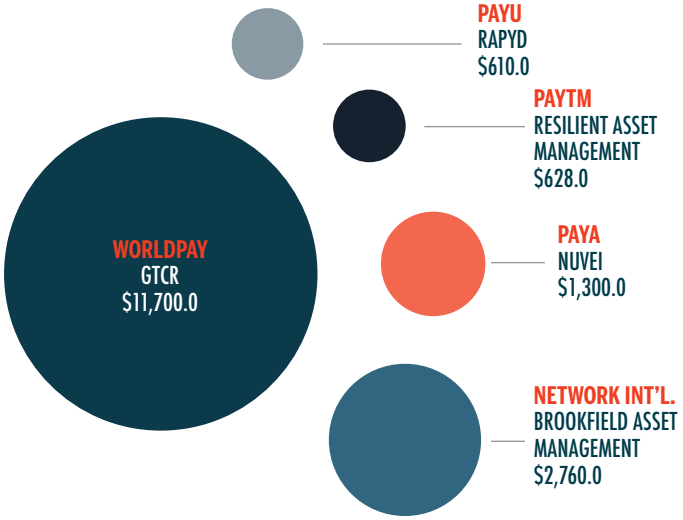
The second largest deal was private equity firm Brookfield Asset Management's takeover of UAE-based Network International. That company mostly provides third-party acquiring services to merchants in the Middle East and North Africa. As a direct acquirer, Network International ranked 77th largest worldwide.

Canada-based Nuvei Technologies, which ranked 113th largest among all acquirers worldwide, paid $1.30 billion to buy Paya, a US-based provider of integrated payment and commerce services. Paya, which ranked 137th largest among acquirers worldwide, had been owned by GTCR.

Prior issues: 1233, 1231, 1229, 1228, 1226, 1225, 1223, 1221, 1219, 1217, 1215, 1213

Mergers and Acquisitions Worldwide

5 Largest Deals in 2023 (Mil.)



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North America

COMPANY	COUNTRY	BUYER	AMOUNT (MIL.)
Atlantic Merchant Services	US	Payroc	*
Atlantic Pacific (APPS)	US	Stax Payments	*
CDE Services	US	Milestone Partners	*
Click2pay	Canada	Paramount Commerce	*
Finical	US	Celero Commerce	*
Flexia Payments	US	Okto	*
G2 Web Services	US	Stellex Capital	*
Gaming Div. of Global Pymts.	US	Parthenon Capital	$415.0
HealthPay24	US	Waystar	*
Interware	US	Avenu Insights	*
Merchant One	US	Fiserv	*
Merchantology	US	Improving Payments	*
MJ Platform	US	POSaBIT Systems	$4.0
NailSoft	US	Aurora Payments	*
National Credit Card Proc.	US	Merchant Lynx	*
NCR Voyix	US	divestiture	$82.0
Paya	US	Nuvei	$1,300.0
PayByPhone	Canada	Fleetcor	*
Quickcharge	US	Transact Campus	*
Science of Sales	US	Improving Payments	*
Skip	US	Standard Cognition	*
SpotOn	US	Shift4	$100.0
Tymber	US	Blaze	*
USTransact	US	Beyond Bancard	*
VN Systems	US	Aurora Payments	*
Worldpay	US	GTCR	$11,700.0
YapStone	US	Velo Payments	*

Europe

COMPANY	COUNTRY	BUYER	AMOUNT (MIL.)
Amadis	France	Prulud Payment Services	*
Computop	Germany	Nexi	*
Ecebs	UK	Unicard	*
EMS	Netherlands	Fiserv	*
Flooid	UK	Glory Global	*
iDeal	Netherlands	European Pymts. Initiative	*
Inergy 24	Switzerland	Payment 24	*
IxoPay	Austria	Ixoit	*
Kuario	Netherlands	XMDS Holdings	*
myPOS	UK	Advent International	$542.2
Netopia	Romania	Innova Capital	*
Novelpay	Poland	Merket Pay	*
Oonex	Belgium	Equals Group	$5.1
Paycomet (Banco Sabadell)	Italy	Nexi	$369.0
Payconiq	Belgium	European Pymts. Initiative	*
PayCore	Turkey	Param	*
PayU (GPO)	Netherlands	Rapyd	$610.0
Phos	Bulgaria	Ingenico	*
SlimPay	France	Trustly	$75.8
Synalcom	France	Qori	*
Total Processing	UK	NomuPay	*
Wellet (Spain business)	UK	UTP Group	*
WhenThen	Ireland	Mangopay	*

* Terms not disclosed.

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Verifone's Expanding Payments Business

One of the pioneers of the payment card terminal business when it was founded in 1981 in Hawaii, Verifone now operates from offices in over 70 countries. In addition to selling payment hardware devices, Verifone also provides a suite of processor-agnostic cloud-based services to omnichannel merchants, services and compliance support to merchant acquirers and direct merchant acquiring in Europe.

Verifone mobile, countertop, portable, multilane and unattended devices are deployed in 165 countries to independent software vendors, quick-service restaurants, petroleum retailers and c-stores, plus big-box, midsized and small retailers and other customers. The company, which now offers a suite of Android-based devices, continues to post single-digit year-over-year growth in hardware shipments.

The number of card acceptance locations worldwide reached 130 million by September 30, 2023, largely from growth in single entrepreneurs that use smartphones to handle card payments. However, most merchant channels continue to use stand-alone POS terminals or devices integrated with POS systems for security reasons (PIN, tokenization) as well as the ability to provide messaging on their screens and support loyalty programs and private label credit cards.

In recent years, Verifone has built the capability to provide a cross-channel technology stack and a global payment gateway to process card transactions. In 2023, Verifone's tech stack processed more than 14 billion transactions. Its payment gateway facilitated more than $500 billion in payments.

The company maintains an expanding number of partnerships with acquirers that serve merchants using its devices. It also manages a portfolio of e-money licenses, primarily in Europe, to support its own portfolio of direct acquiring and settlement contracts with a growing number of merchants.

Verifone provides a single integration for global acquiring of card and alternative payment methods, processing connections, Visa and Mastercard tokenization support, encryption, PCI compliance and fraud fighting capabilities.

It is available as a cloud-based service on a subscription basis to banks, fintechs and payment facilitators, and supports POS hardware from any device manufacturer, in-store payments, omnichannel merchants, telephone and mail payments and digital-only sellers. For these customers, Verifone can provide merchant onboarding, device and software management services and consulting.

IN THIS ARTICLE

verifone

Private equity firm Francisco Partners has owned Verifone since 2018 when it took the company private in a $3.40-billion buyout.

INTERVIEWED FOR THIS ARTICLE

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Prior issues: 1250, 1239, 1228, 1216, 1212, 1189, 1186, 1137, 1123



In 2023, there were 485 mergers, acquisitions and corporate financing deals among companies that make all or part of their revenues from the card payment industry. Those deals took place in 63 countries. All, including the 30 deals in 19 countries in December included below, were published monthly in issues we published last year

DECEMBER 2023

Investments & Acquisitions

COMPANY	COUNTRY	BUYER/INVESTOR	AMOUNT (MIL)
B2B Payments			
Icon Solutions	UK	strategic round [1]	*
Supra	Colombia	strategic round [2]	*
BNPL, Alternative Lending			
Aria	France	Series A [3]	$16.4
Escrowpay	India	Series A ext. [4]	$0.6
LawFi	US	pre-seed round [5]	$1.5
Liberis	UK	debt financing [6]	$112.0
Splitit Payments	US	Motive Partners [7]	$50.0
Tabby	Saudi Arabia	debt financing [8]	$700.0
Tabby	Saudi Arabia	Series D ext. [9]	$50.0
Tamara	Saudi Arabia	Series C [10]	$340.0
Card Account Processing			
Prosa	Mexico	Visa [11]	*
Debit Cards			
Koho	Canada	Series D ext. [12]	$64.5
Fraud Fighting, Security			
Modirum	Estonia	Entersekt [13]	*
Salv	Estonia	undisclosed venture round [14]	$4.3
Spade	US	Series A [15]	$10.0
Loyalty, Rewards			
Claim	US	seed round [16]	$4.0
Salt Labs	US	undisclosed venture round [17]	$8.0
Merchant Processing, Acquiring			
Clik2pay	Canada	Paramount Commerce [13]	*

COMPANY	COUNTRY	BUYER/INVESTOR	AMOUNT (MIL)
Merchant Processing, Acquiring (Continued)			
Flooid	UK	Glory Global [13]	*
Nearpay	Saudi Arabia	Series A [18]	$14.0
Payble	US	private placement [19]	$3.5
Payrexx	Switzerland	Series A [20]	$2.9
Science of Sales	US	Improving Payments [13]	*
Sony Payment Services	Japan	Blackstone [21]	$280.0
SumUp	UK	growth round [22]	$310.7
Money Transfers			
Felix Pago	US	seed round ext. [23]	$5.3
Hanpass	South Korea	equity round [24]	*
Interstellar	Colombia	strategic round [25]	*
Personal Finance			
Paynest	Portugal	seed round [26]	$2.0
Software			
Triple	US	seed round [27]	$7.5

*Terms not disclosed. **1** From Citi Treasury and Trade Solutions. **2** Led by Citi. **3** Led by 13books Capital. **4** Including Inflection Point Ventures. **5** From Capital Q Ventures. **6** From HSBC and BCI Capital. **7** Purchased majority equity stake. **8** From JPMorgan. **9** Including Soros Capital. **10** Including SNB Capital. **11** Purchased majority of equity. **12** Including Drive Capital. **13** Acquisition. **14** Investors not disclosed. **15** Led by Flourish Ventures. **16** Led by Sequoia Capital. **17** Led by Third Prime. **18** Led by Sanabil Investments. **19** Led by OIF Ventures. **20** From INS. **21** Purchased 80% of the equity. **22** Led by Sixth Street Growth. **23** Led by Switch Ventures. **24** JB Financial purchased 15% of the equity. **25** Including MoneyGram. **26** Led by Lince Capital. **27** Led by TX Ventures.

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Message from the Publisher,

Our latest issue leads us into 2024 with an article that is a first for us—a market capitalization comparison of all publicly traded processors in the payment card industry. This comparison is based on our monthly presentation of the more than 137 publicly traded companies worldwide that earn all or a substantial part of their annual revenues from card industry customers. The processors we feature represent 18 countries and territories and 11 stock exchanges.

David Robertson, Publisher
January 16, 2024

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