CASE STUDY

SOUTHEAST ASIA'S CROSS-BORDER PAYMENT PUSH

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At the edge of Bali's Pura Tanah Lot, an ancient Hindu temple that towers above the ocean atop an outcrop of rocks on the Indonesian island's southwestern coast, a row of souvenir stalls invites tourists to shop for artwork, bracelets, sarongs, and other wares.

A $2 pair of sunglasses catches a shopper's eye. A buyer can use a mobile wallet app to scan a QR code: a faded black-and-white printout taped to a glass counter at the back of the stall. After keying in the amount and showing the stall owner the transaction confirmation screen, the sale is complete. No cash changes hands; no cards are swiped.

Seamless QR code payments are common across Southeast Asia. Mass adoption occurred during the COVID-19 pandemic, when governments urged merchants to move away from cash. These payments are convenient for customers and much simpler and cheaper for small businesses than a formal card-reading device.

QRIS, Indonesia's national QR code standard, established by the central bank and payment association in 2019, does not charge small businesses for processing payments below 500,000 rupiah ($30). Settlement is instant. Transactions above this threshold cost just 0.3 percent.

But there's a problem: QRIS transactions are still limited mostly to domestic use. With a mobile wallet from outside Indonesia, the sunglasses payment probably wouldn't have gone through.

Policymakers want seamless digital transfers between countries to be obstacle-free

Domestic instant payment systems were transformative for Southeast Asia, but regulators and businesses then "started to recognize the opportunity of connecting them," says Benjamin Lee, interim director of Singapore-based Nexus Global Payments (NGP), a nonprofit established by several central banks in April 2025 to improve cross-border connectivity.

On one hand, there's a growing number of bilateral links. Thailand and Singapore were the first to establish one, in 2021, linking their instant payment systems. Others, such as Singapore and India, Thailand and Malaysia, followed. Indonesia recently announced plans for a QR code link beyond the region, with China and Japan. On the other hand, there's an ongoing effort, spearheaded by NGP, to create infrastructure for multilateral connections to allow all manner of cross-border instant payments through a shared node and a common system.

Mobile payment innovation

After a decade of rapid digitalization, and inspired by China and India, Southeast Asia is pushing forward with mobile payment innovation. Smartphone adoption soared after 2010 and, with it, proliferation of digital platforms for rides, meals, and e-commerce, fueled by billions of dollars in venture capital.

But there was one major source of friction: payments. Card usage, especially credit cards, is low in Southeast Asia. This made it difficult to provide a secure environment for online transactions. And only a fraction of offline merchants had the means to install card readers. Most small-scale daily transactions used cash, even in major cities.

Digital platforms needed a better way to move money—not just between consumers and merchants, but within their own ecosystems of drivers, couriers, and sellers. If most ride-hailing drivers received cash from passengers, there was no easy way for the platforms to take a cut.

Digital wallets, such as those pioneered by Alibaba in China and Paytm in India, emerged as a solution for Southeast Asia. They allowed users to store money on their phones, making it easy to pay for rides, meals, or online orders without handling cash.

At first, each platform built its own closed-loop system. Payments worked smoothly inside the app and between its partners. This was efficient for platforms but fragmented for consumers and merchants. Regulators soon recognized the need for open, standardized infrastructure that would allow digital payments across platforms and providers.

Consolidation and standardization

Singapore pioneered this push. In 2017, its banking association introduced PayNow, an instant pay-

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ment system (IPS) for peer-to-peer transfers. The aim, according to Kenneth Gay, chief fintech officer at the Monetary Authority of Singapore (MAS), was to "provide a safe, simple, and faster way for individuals and businesses in Singapore to make payment transactions."

Similar to India's Unified Payments Interface (UPI), PayNow enables the electronic transfer of money to people using only their mobile phone or national ID numbers, and to businesses using their unique entity numbers—in real time, 24/7, for free.

Singapore also expanded its existing Network for Electronic Transfers (NETS) to support QR code payments at regular offline stores. Together, these systems created a more open, connected payment landscape—one that didn't rely solely on cards or proprietary wallets.

Other countries followed. Malaysia introduced DuitNow and Thailand PromptPay, which both follow a similar approach to Singapore's and support UPI-style transfers; Indonesia introduced BI-FAST and QRIS. They all aim to unify domestic payments under national standards and establish public infrastructure that private fintech firms can use. But, says Gay, "Most cross-border payments remained slow, opaque, and inefficient, due to their reliance on multiple correspondent banks and other intermediaries."

Formally linking national instant payment systems across countries would eliminate fragmentation and, according to MAS, "carry over the benefits of cheap, fast, seamless payments from the domestic to the cross-border arena." Travelers and the many merchants that cater to them would appreciate the convenience of interoperability among standardized national QR code systems.

Allowing international fund transfers using a mobile phone or ID number via linked IPSs would be even more transformative, and a boon for the many families that rely on remittances from relatives working elsewhere in the region.

Project Nexus

Southeast Asia's regulators and central banks have started to realize that developing individual bilat-

Tourists shop at souvenir stalls in Ubud, Bali, Indonesia.

eral links is too resource-intensive. "Each linkage required a refresh in technical alignment between the respective two IPSs and alignment in domestic policies and requirements, such as on data privacy, security, and sanctions screening," says Gay. It took three years of extensive collaboration between multiple stakeholders to finalize the 2021 PayNow–PromptPay linkage.

Expanding IPS links to a broader network of countries becomes more efficient with a multilateral payment gateway solution—which is why central banks and regulators came together to form NGP, a gateway designed to standardize the way domestic IPSs connect to one another.

"The Project Nexus idea was originally conceived at the Singapore Innovation Hub," says Lee, referring to a Bank for International Settlements initiative that promotes new technologies for safer, faster, and more connected financial systems. Rather than building custom connections for every new country, an IPS operator need make only one connection to Nexus to reach all other countries in the network, he explained.

As with bilateral linkages, tapping into a single node through Nexus requires common technical standards, including common operating standards and processes that cover approaches to data privacy and money laundering safeguards, and a consistent commercial model that protects the interests of all stakeholders.

There's real momentum now, says Lee. "The region came together about two years ago, under the Indonesian G20 presidency, when the idea of regional payments connectivity was made a priority, and has now led to the establishment of NGP and a shared desire to scale this network globally to other interested and ready jurisdictions."

NGP is now focused on foundational work to build its capabilities and enable Nexus to go live. It is expected to appoint a technical operator to build and operate the network this year, according to MAS's Gay. "We expect to see the first live cross-border transaction on Nexus around 2027," he said, before expanding to other interested countries.

Glimpse of the future

Large-scale adoption of cross-border functionality depends on sustained collaboration between governments, central banks, and fintech players. Smaller banks too need to raise their game or risk being left behind amid rapid payment industry transformation.

Many banks in Southeast Asia still "operate on legacy systems," says Arun Kini, managing director for Asia-Pacific payments at fintech firm Finastra, which specializes in helping banks meet the latest technical and regulatory requirements. Banks can benefit from tapping into burgeoning IPSs, but their popularity has also "become a bottleneck for the banks," posing problems for those that don't have the technology to tap into them, says Kini.

So while there's progress, NGP's vision of a cross-border payment landscape in which people, banks, and fintech firms can effortlessly move money to each other across borders may take time. In the meantime, innovative technology is still popping up to meet everyday needs.

The latest invention to reach Southeast Asia from China and India? QR codes attached to portable 4G-enabled speakers. They deliver audio confirmation of the payment amount received, removing the need for merchants to do a visual check. It's ideal for mobile payments in busy settings like the bustling tourist stalls that line the approach to Bali's Tanah Lot temple. F&D

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