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Unlocking Innovation: The Role of MNO APIs

Transforming Financial Services and Digital Commerce in Southeast Asia

November 2024

The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change.

Our vision is to unlock the full power of connectivity so that people, industry, and society thrive.

Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions, and Outreach. This activity includes advancing policy, tackling today's biggest societal challenges, underpinning the technology and interoperability that make mobile work, and providing the world's largest platform to convene the mobile ecosystem at the MWC and M360 series of events.

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Think Howe offers strategy consulting and research services to private companies, governments, and public institutions focused on the Australasian region.

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TABLE OF CONTENT

GSMA

EXECUTIVE SUMMARY

Harnessing the Power of MNO APIs for Fintech and Digital Commerce

Mobile Network Operator (MNO) APIs are at the forefront of innovation in financial services and digital commerce, particularly in Southeast Asia - a region characterised by its mobile-first economies and traditionally underserved financial ecosystems. These APIs provide seamless integration between telecommunications networks and fintech, enabling transformative solutions in areas such as financial inclusion, security, cross-border payments, and scalability. For MNOs, financial service providers, developers, and digital commerce stakeholders, APIs represents a strategic opportunity to enhance user experience, optimise operations, and unlock new markets.

MNO APIs simplifies financial service delivery for underserved populations, through various use cases such as streamlining onboarding with identity verification and enabling secure transactions via mobile money platforms. For developers, APIs accelerate time-to-market and further enable innovations such as microloans and credit scoring.

In digital commerce, APIs enhances customer engagement through efficient carrier billing, location-based offers, and real-time payments, leading to boosted conversion rates and revenue.

Security-focused APIs like Two-Factor Authentication (2FA) and SIM Swap Detection mitigate rising fraud risks, while cross-border payment APIs streamline remittances and global e-commerce with secure, cost-effective solutions.

Real-time scalability APIs ensure uninterrupted services during peak transaction volumes, meeting the demands of growing digital markets while keeping costs under control.

MNO APIs have already demonstrated transformative impact. Unified frameworks in Cambodia increased mobile wallet users from 1.5M to 4M, while Thailand's payment API integrations have facilitated growth in conversational commerce by 30%. Vietnam's API-enabled microloans empowered SMEs, and the Philippines processed $2B in remittances through API-powered wallets. These successes underscore the essential role of MNO APIs in creating the future of a secure, inclusive, and innovative digital economy.

MNO APIs are not just tools - they are essential infrastructure for the next wave of digital transformation. Stakeholders who prioritise their integration will lead in shaping a more inclusive, secure, and innovative digital future.

FOREWORD

In today's fast-changing digital landscape, Mobile Network Operator (MNO) APIs are playing an increasingly vital role in revolutionising financial services and digital commerce, especially in Southeast Asia. This region, known for its diverse economies and high mobile penetration rates, offers unique opportunities and challenges for innovation in fintech and digital commerce.

Through in-depth analysis and real-world case studies, this report examines the essential function of telecommunications APIs in connecting users, platforms, and service providers. It offers valuable insights into their development and application, addressing key challenges such as fragmented data, secure cross-border transactions, and real-time scalability.

As you navigate through the chapters, you will gain a deeper understanding of how these APIs facilitate seamless integration, enhance security, and promote financial inclusion, creating new opportunities for both businesses and consumers in Southeast Asia. It stands as a testimony to the innovative and collaborative efforts of various industry stakeholders, all striving for a more connected and inclusive digital economy.

I hope this report inspires you to explore the vast possibilities that MNO APIs present and encourages you to engage in the ongoing transformation of financial services and digital commerce in this dynamic region.

Julian Gorman
Head of APAC, GSMA

Dr Ong Geok Chwee, CEO of Bridge Alliance said,

"Our Bridge Alliance API Exchange (BAEx) offers a streamlined solution with a single integration and contract empowering businesses to seamlessly access regional telco APIs and unlock cross-border opportunities. It reflects the commitment we share with the GSMA towards a unified and standardised API framework, which will advance digital transformation and democratise regional service delivery for the financial sector and beyond."

John Chua, Strategic Carrier Relations of Twilio said,

"Customers are seeing improved Conversion Rates & a reduction in Social Engineering incidents with our Twilio Verify API using the Silent Network Authentication product. We look forward to engaging with GSMA Asia Pacific to light up the Number Verification API with more carriers in this region"

Stefan Kostic, CEO of IPification said,

"The integration of MNO APIs into mobile identity and authentication services is driving innovation in mobile ecosystems. By implementing solutions like IPification's GMID-BOX into their networks, MNOs enable secure, privacy-centric, one click authentication solutions that empower third-party services across fintech, e-commerce, and more. These MobileID APIs not only enhance fraud prevention through capabilities like SIM Swap Detection but also open new revenue opportunities for MNOs, transforming their role from connectivity providers to enablers of trust and innovation in the mobile economy. A GSMA Open Gateway partner, IPification is helping to set the global benchmark for secure, scalable, and user-friendly authentication."

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3. Introduction to Telecommunications APIs in Fintech and Digital Commerce

Telecommunications Application Programming Interfaces (APIs) have rapidly emerged as vital components in the fintech and digital commerce ecosystems, particularly in South East Asia, where the pace of digital transformation is accelerating. In a region marked by significant mobile penetration, diverse economic landscapes, and varying levels of financial inclusion, telecommunications APIs are enabling new solutions that bridge gaps and increase efficiency between users, platforms, and service providers.

What Are Telecommunications APIs?

Telecommunications APIs are sets of protocols and tools provided by mobile network operators (MNOs) and telecommunications service providers to allow developers and businesses to access specific functionalities of their networks. These functionalities currently include sending SMS notifications, managing data traffic, performing identity verifications via mobile numbers, and integrating payments through carrier billing. The value of these APIs lies in their ability to make the information within and the complex infrastructure of telecom networks accessible to third-party developers and businesses through single, simple, and standardised interfaces.

APIs essentially serve as automated bridges, connecting different platforms, applications, and devices. In fintech and digital commerce, this capability allows businesses to offer seamless experiences, integrate various services, and expand their reach, and opening up areas with limited traditional banking infrastructure.

South East Asia presents a unique case for leveraging telecommunications APIs due to its mobile-first economies and rapidly growing demand for digital financial services.

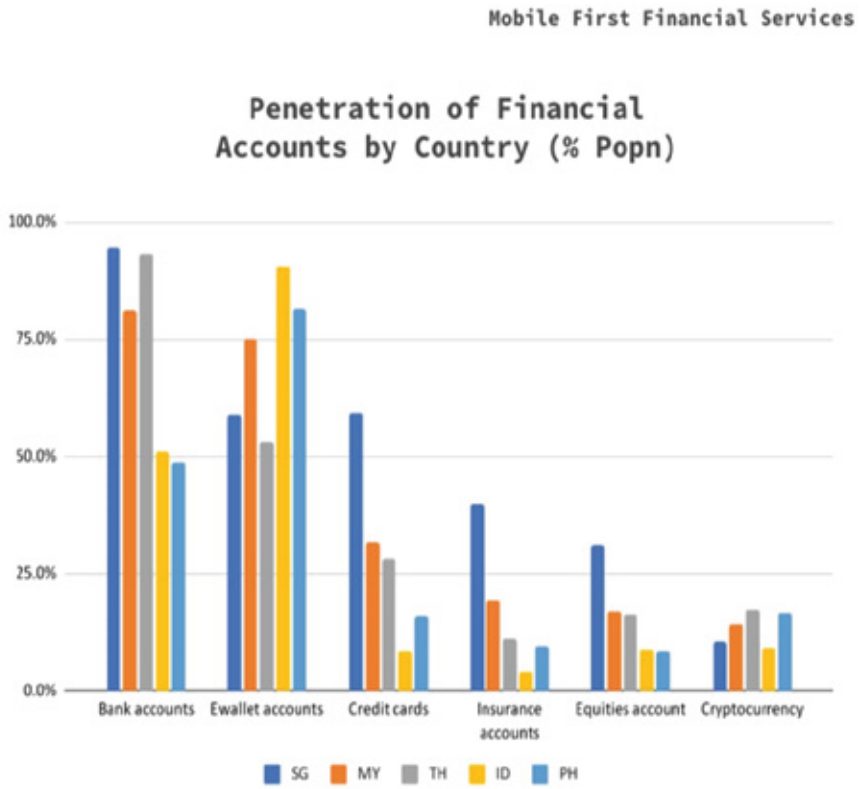
The Role of Telecommunications APIs in Fintech

In fintech, telecommunications APIs have become a crucial enabler for delivering services to unbanked and underbanked populations in South East Asia. With a significant portion of the population relying primarily on mobile phones for internet access and financial transactions, APIs offer a means of providing financial inclusion through innovative solutions.

For example, mobile identity APIs allow fintech platforms to use phone numbers as a form of user identification and authentication. This minimizes the friction often encountered during the onboarding process for financial services, especially in regions where traditional identification systems are either inadequate or unavailable. APIs for SMS and USSD (Unstructured Supplementary Service Data) have been used with success to enhance communication between fintech providers and their customers, and now these are supplemented with additional offerings such as secure two-factor authentication (2FA) and SIM swap protection APIs.

Telecommunications APIs also play a significant role in enabling mobile money and carrier billing. In many parts of South East Asia, mobile money services have become a popular alternative to bank accounts. Telecommunications APIs provide the backbone for these services, facilitating money transfers, bill payments, and micro-loans via mobile devices. By integrating directly with mobile network operators, fintech companies are able to make their offerings easier to use, more secure and more deeply integrated with other offerings allowing users the ability to deposit, withdraw, and transfer money seamlessly, often in partnership with mobile wallets or payment service providers.

Adoption of eWallets has reached 91% in Indonesia and 80% in the Philippines



Source: Consumer Attitudes Toward Fraud and Opportunities for Mobile Network Operators in SEA, https://www.gsma.com/about-us/regions/asia-pacific/communities/apac-fintech-forum/

The Impact on Digital Commerce

In digital commerce, telecommunications APIs are reshaping how businesses interact with consumers. APIs enable merchants to reach customers directly via mobile devices, allowing for mobile payments, personalized marketing, and real-time communication. Carrier billing APIs, for example, lets consumers purchase goods or services using their mobile balance, which is especially important in regions where credit card penetration and other banking alternatives are low.

There is also significant interest in how Telecom APIs could support localized customer engagement strategies. Businesses could potentially send targeted promotions through SMS or push notifications, boosting conversion rates. Additionally, by leveraging location-based APIs, merchants can offer hyper-localized services, catering to specific demographics within South East Asia's highly fragmented markets. Of course, any personal data privacy concerns must be taken in account as these offerings develop.

The role of telecommunications APIs in fintech and digital commerce is growing exponentially, particularly in South East Asia. As more businesses and fintech platforms recognize the potential of these APIs, they will continue to drive financial inclusion and enhance digital commerce experiences across the region. APIs represent the future of seamless integration, allowing businesses to scale and adapt quickly to the region's evolving digital economy. South East Asia, with its mobile-first approach, is poised to be at the forefront of this transformative shift.

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4. Why Telecommunications Companies Are Developing APIs

Telecommunications companies (telcos) are at the forefront of developing Application Programming Interfaces (APIs) that address critical challenges in the fintech and digital commerce ecosystems. The motivation behind this push to develop APIs is driven by industry-wide problems, including fragmented data across networks, the need for secure cross-border transactions, and the demand for real-time scalability. These APIs are designed to provide solutions that not only enhance interoperability between different platforms and networks but also streamline processes, improve security, and deliver better user experiences.

Problem Statement 1: Fragmented Data Across Networks

In the interconnected digital world, a single field of user data would be held within multiple telecom networks with each network housing the data of their own users. For example, a request check to KYC Match a users application data with their phone number to verify would traditionally have to go out to multiple networks with the query not knowing which network held the data.

The fragmentation of data storage creates several challenges. First, service providers must connect to multiple networks each with their own proprietary and sometimes changing formats hindering growth potential and scale. Second, the response times and data quality will vary across the different network operators making the user experience feel sluggish and unresponsive. Third, they must maintain billing relationships with all the different providers.

API Solutions: Data Consolidation and Integration APIs

To address the challenge of fragmented data, telecommunications companies have developed APIs that consolidate and integrate data across multiple networks. These APIs serve as an intermediary layer that connects disparate systems, enabling the seamless exchange of data between them.

Data consolidation streamlines the flow of information by laterally connecting multiple telecom networks allowing for a single connection into this unified system. This ensures that data can be accessed quickly and efficiently, through a single connection regardless of the telecom network involved. Furthermore, with the Camara standard this connectivity will take the same format globally reducing any work required to connect to any other network globally.

Integration APIs, on the other hand, help fintech applications and digital commerce platforms interface with telecommunications networks in real-time. Improving efficiency by providing a consistent and standardised way for applications to interact with telecom systems. This improves the speed and accuracy of any activity or request sent to the network.

Together, these APIs allow fintech applications to offer faster, more reliable services to their customers. By eliminating the data silos that exist across telecom networks, data consolidation and integration APIs provide businesses with consistent and simplified access to information from and trigger actions within the network, and hence deliver a more seamless user experience.

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Problem Statement 2: Account and Transaction Security

The increasingly digital nature of finance means that protection of an increasing number of accounts is increasingly important, whether it be financial accounts, communication accounts or a host of other accounts that hold value accessible through a login on our devices.

Security is one of the most pressing concerns for people today and many have already experienced account hacking or fraud on some level and advances in AI are further driving the ability of attackers to deploy more sophisticated exploits at a greater speed.

API Solutions: Subscriber Identity APIs

To tackle the issues of security, while maintaining convenience, telecommunications companies have developed APIs that enable faster, and safer account verification mechanisms.

These APIs support secure authentication of the subscriber and the device to ensure that transactions are protected from fraud and hacking attempts. By leveraging telecommunications networks, service providers can use APIs to facilitate verification of the device, KYC or the user, protection against SIM swap attacks, and a range of other information used for fraud prevention engines.

The ability to secure accounts and verify users in real time is a game-changer for fintech companies aiming to expand rapidly. By partnering with telcos that provide these APIs, fintech companies can access secure and reliable methods for account security and fraud prevention, ultimately driving financial inclusion and empowering businesses to operate at scale.

Problem Statement 3: The Need for Real-time Scalability

As digital platforms scale, their ability to handle large volumes of users in real time becomes increasingly important. Customers today expect instant gratification - whether they are watching video, downloading a device update, or playing online games. Increased congestion in the network can result in poor user experience, lost revenue, and a damaged reputation for the company.

Scalability is particularly challenging for applications operating in regions with varying telecom infrastructure capabilities. The ability to cope with changing network congestion becomes crucial when these platforms need to accommodate peak usage periods, such as during holidays, or densification of people such as rush hour commuting times.

Traditional telecom infrastructure is not inherently designed for the real-time scalability demands of modern applications. Networks can become congested, leading to slower load times or even failures in browser communication with the servers. This can frustrate users and lead to lost opportunities for businesses.

API Solutions: Real-time Scalability APIs

Telecommunications companies have responded to this challenge by developing scalability APIs that allow service providers to prioritise their traffic, cache commonly requested data on the network edge and even provide feedback about user experience. These APIs enable businesses to provide their customers with uniform experience by leveraging telecom networks that can adjust to demand in real time.

Scalability APIs use techniques such as QoS, caching, and intelligent traffic routing to ensure that the applications can handle large transactions during periods of congestion. For example, when a mobile payment app experiences a surge in users during an ecommerce promotional campaign, the real-time scalability API ensures that the app remains responsive by automatically prioritising traffic to its servers.

Moreover, these APIs can provide real-time monitoring and analytics, allowing businesses to gain insights into transaction patterns and network performance. This enables them to make data-driven decisions about future capacity planning and ensures that they can continually meet customer demands while balancing costs during peak periods.

By adopting real-time scalability APIs, fintech companies can deliver the instant experiences that customers expect, while ensuring that their services remain reliable and efficient even as they scale.

Conclusion

Telecommunications companies are developing APIs in response to key challenges facing the fintech, digital commerce and digital services sectors. From fragmented data across networks to secure transactions and the need for scalability, telco APIs provide tailored solutions that enable fintech applications to operate efficiently, securely, and at scale. These APIs are not just technical tools but strategic enablers, allowing businesses to innovate and grow in an increasingly connected world.

	Anti-Fraud								Cloud & Edge	Fixed Connectivity		Mobile Connectivity & VAS				Cloud & Edge	Payments	Grand Total
	Subscriber Identity								MEC	Network Quality & Optimisation		Location			Network Quality & Optimisation	MEC	Payments & Charging	
	Device Roaming Status	Device Status	Sim Swap	One Time Password	Number Verification	KYC Fill-in	KYC Match	Device Identifier	Number Verification	One Time Password SMS	Home Devices Quality on Demand	Device Location Verification	Device Location Geofencing	Device Location Retrieval	Quality on Demand	Simple Edge Discovery	Carier Billing	
NA		2	1												1	1		5
LATAM	1	1	8	2	4			1			1	5		1	1			25
Europe	1	2	14	2			1		14			5			4		1	44
MENA	2		2	1														5
SSA			4		3													7
NE Asia		1	2	4	2	1	1	1		1	1	1		1	2	1		19
SE Asia		1	7	4	8							7					2	29
South Asia	1		1									1	1	1	1			6
Asia-Pacific		1	1						1						1			4
Oceania																1		1
Total	5	8	40	13	17	1	2	2	15	1	2	19	1	3	10	3	3	145

Source: GSMAi, November 2024

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5. Applications of Telecommunication APIs in Fintech & Digital Commerce

Telecommunication APIs are driving significant transformation in the fintech and digital commerce industries, particularly in regions like South East Asia (SEA). With a rapidly growing population, increasing mobile penetration, and a significant portion of unbanked or underbanked individuals, South East Asia presents both challenges and opportunities for fintech companies.

Telecommunication APIs provide innovative solutions that help address these challenges, enabling greater financial inclusion, enhanced security, and more efficient digital transactions. In this chapter, we explore several key applications of telecommunication APIs in the fintech sector, with a focus on how these solutions are shaping the future of digital finance in SEA.

Enabling Mobile Money and Financial Inclusion

One of the most impactful applications of telecommunication APIs in SEA is the facilitation of mobile money services. According to the GSMA's "State of the Industry Report on Mobile Money 2023," approximately 1.4 billion people worldwide remain unbanked[1]. This presents a significant opportunity for mobile money platforms, which rely on telecommunication APIs to provide secure and efficient financial services to people without traditional banking access.

Telecommunication APIs enables seamless integration between mobile networks and fintech platforms, allowing users to send and receive money, pay bills, and make purchases using their mobile phones. This is particularly beneficial in countries like Indonesia, the Philippines, and Cambodia, where mobile penetration is high, but access to banking infrastructure is limited. With the help of APIs, mobile money platforms can tap into telecom networks to authenticate users, verify transactions, and provide real-time notifications.

For example, in the Philippines, GCash (a leading mobile wallet) uses APIs to integrate with telecom operators, allowing users to access financial services via USSD (Unstructured Supplementary Service Data) or mobile apps. This has contributed to a significant increase in financial inclusion, as millions of previously unbanked individuals now have access to mobile wallets and other fintech services.

Enhancing Security with Two-Factor Authentication (2FA)

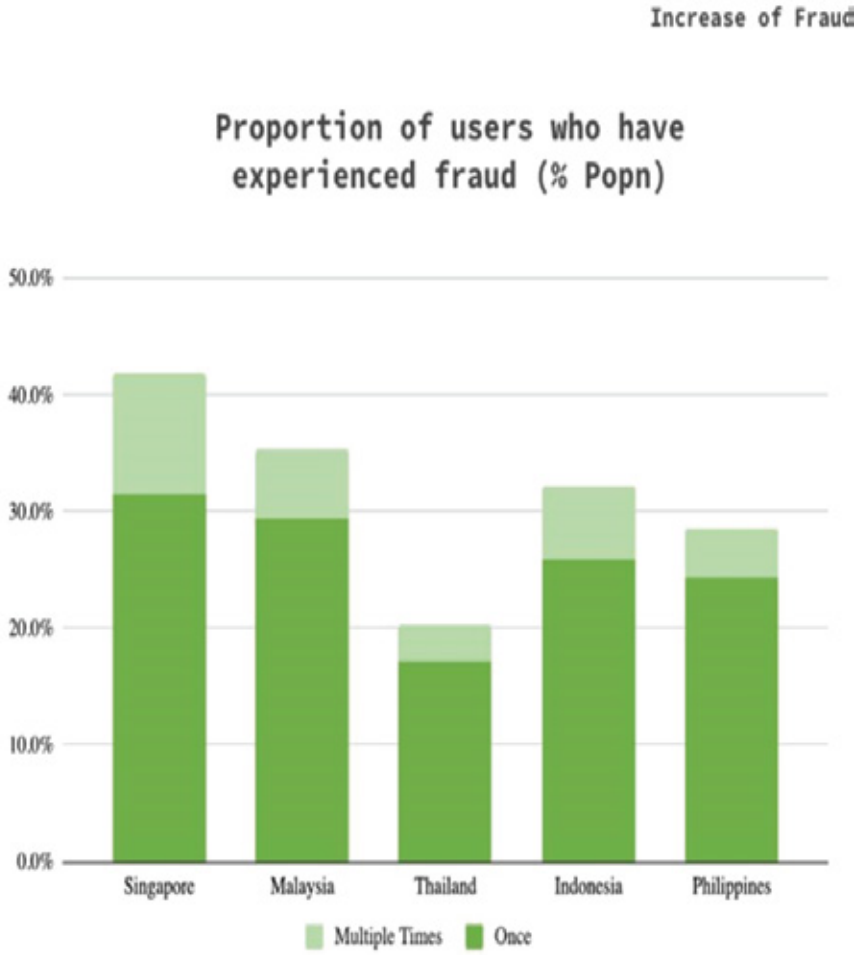
As the fintech sector in South East Asia expands, so too does the need for enhanced security measures. The region has witnessed a sharp increase in digital fraud, with the growth of e-commerce and mobile payments making it a target for cybercriminals. In 2023, Kaspersky's Anti-Phishing System blocked over 709 million attempts to access phishing and scam websites globally, marking a 40% increase compared to the previous year[2]. (Kaspersky) In Southeast Asia, businesses faced nearly 500,000 financial phishing attempts, with the Philippines recording the highest number at 163,279 incidents, followed by Malaysia with 124,105, and Indonesia with 97,465[3]. This surge underscores the escalating threat of phishing attacks in the region, highlighting the need for increasingly robust security measures.

[1]Mobile money exceeds industry expectations, reaching a transactional value of 1.26 USD Trillion in 2022 - GSMA - (2023)

[2]Kaspersky reports phishing attacks grow by 40 percent in 2023 - Kaspersky - (2024)

[3]Nearly 500K Phishing Attacks Target Southeast Asian Firms - Telecom Review Asia Pacific - (2024)

In Singapore 42% of people have already been a victim of fraud



Source: Consumer Attitudes Toward Fraud and Opportunities for Mobile Network Operators in SEA, https://www.gsma.com/about-us/regions/asia-pacific/communities/apac-fintech-forum/

Telecommunication APIs are being used extensively to implement two-factor authentication (2FA), a security mechanism that requires users to verify their identity through a second method, typically via their mobile phone. This adds an extra layer of protection for users conducting transactions on fintech platforms, ensuring that only authorised individuals can access their accounts.

For instance, when a user initiates a payment on a fintech app, the platform can use an API to send a one-time password (OTP) to the user's mobile phone via SMS. The user must enter this OTP to complete the transaction, providing an additional safeguard against unauthorised access. This use of APIs for 2FA has become a critical security feature in Southeast Asia's digital finance ecosystem, where trust and security are paramount for driving further adoption. APIs enable both the automatic sending of OTPs and more recently the option of using background authentication to increase convenience and remove any margin of error from the user.

Supporting Cross-border Remittances

Cross-border remittances represent another major area where telecommunication APIs are making a significant impact in South East Asia. The region is a major recipient of remittances, with the World Bank estimating that SEA received over USD 149[4] billion in remittances in 2022. Countries like the Philippines, Vietnam, and Indonesia are among the top recipients, with millions of workers abroad sending money home to their families.

However, traditional remittance channels can be slow, costly, and inconvenient, particularly for those in rural areas. Telecommunication APIs have revolutionised this process by enabling faster, cheaper, and more secure cross-border transfers. APIs allows fintech platforms to connect directly with mobile networks, enabling users to send money internationally using mobile wallets or other digital payment services.

For example, Singapore-based remittance service TransferWise (now Wise) uses APIs to partner with mobile operators and financial institutions, enabling seamless cross-border payments. This reduces transaction fees and processing times, making it easier for individuals in SEA to send and receive money across borders. With APIs facilitating real-time currency conversion, identity verification, and transaction tracking, remittances have become more accessible and affordable for those who need it most.

Real-time Payments and E-commerce Integration

The growing e-commerce market in South East Asia is another area where telecommunication APIs are transforming fintech applications. SEA's digital economy is expected to reach USD 363 billion by 2025[5], with e-commerce being one of the key drivers. To support this growth, real-time payment systems are essential for enabling seamless transactions between buyers and sellers.

Telecommunication APIs enables real-time payments by integrating fintech platforms with telecom networks, allowing users to make instant payments via mobile wallets or bank transfers. In countries like Thailand, where the government has launched the PromptPay system, APIs enable e-commerce platforms to accept real-time payments directly from customers' mobile phones, improving the security, speed and convenience of online shopping.

By providing APIs that secure real-time transaction processing, telecommunications companies are helping e-commerce platforms in SEA improve customer experience, reduce cart abandonment rates, and drive higher sales volumes.

[4]Remittances in East Asia & Pacific - World Bank Blogs (2023)

[5]Southeast Asia Digital Economy to Reach $363 Billion by 2025 - Bloomberg (2021)

APIs and Machine Learning for Fraud Detection in South East Asia

In the rapidly expanding fintech ecosystem of South East Asia, the integration of machine learning models with telecommunications APIs has proven to be a crucial tool for detecting and preventing fraudulent activities. The region, characterised by its fast adoption of digital payments and mobile banking, also faces rising threats of digital fraud. Digital fraud in Southeast Asia has been escalating significantly, prompting fintech platforms to enhance their security measures. A 2024 report by BioCatch highlights that 70% of all digital fraud now originates from mobile apps, marking a 17% increase from 2022. Additionally, voice scams have surged by 108% in 2023[6]. Similarly, a 2024 report by Jumio indicates that the Asia-Pacific region has the highest fraud rate globally, at 3.27%[7]. These findings underscore the urgent need for fintech platforms to implement advanced security measures to protect against the rising tide of digital fraud.

Telecommunications APIs, when integrated with machine learning models, offer real-time fraud detection by analysing transaction data and identifying unusual patterns. These APIs allow fintech companies to access vast amounts of data from mobile networks and use machine learning algorithms to monitor transactions for potential anomalies. For instance, if a transaction deviates from a user's typical behavior (such as transactions made from unusual locations) the API-based system can trigger alerts or even freeze the account to prevent further damage.

This proactive fraud detection mechanism has been particularly effective in reducing financial fraud in South East Asia. A recent report from GSMA revealed that API-based fraud detection systems have reduced fraud by 60% in regions where telecom APIs are widely used. Countries like Indonesia and the Philippines, where mobile payments and e-commerce have seen tremendous growth, are leading in the adoption of these systems, providing a safer environment for digital transactions.

By integrating machine learning models with telecom APIs, fintech companies in South East Asia are not only improving security but also building trust with users, encouraging greater adoption of digital financial services in the region.

Conclusion

Telecommunication APIs are revolutionising fintech in South East Asia by addressing key challenges such as financial inclusion, security, cross-border remittances, and real-time payments. As the region's digital economy continues to grow, the role of APIs in enabling seamless and secure transactions will only become more critical. These solutions not only help fintech companies scale but also provide millions of people in SEA with access to essential financial services, contributing to greater economic inclusion and growth in the region.

[6]Mixed Findings in BioCatch's Latest Fraud Report - APSM (2024)

[7]The Shifting Landscape of Fraud and Identity in 2024 - Fintech News (2024)

6. Case Studies & Real-world Implementations

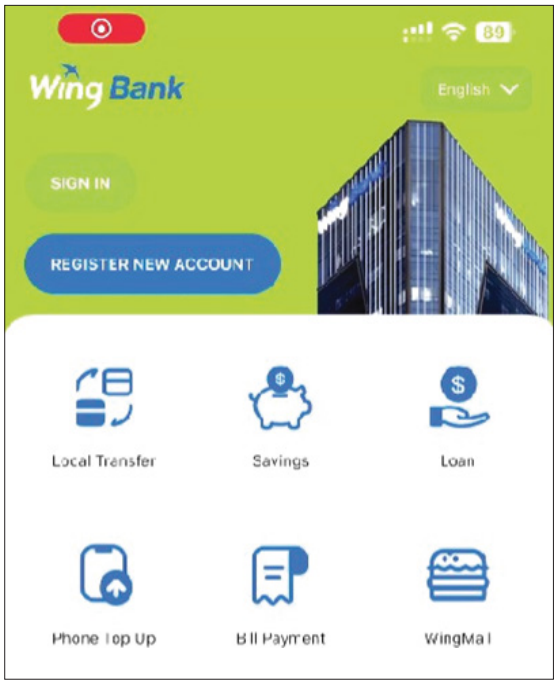
Boosting Financial Inclusion Through Mobile Wallets in Cambodia

Overview: In Cambodia, mobile network operators (MNOs) collaborated to create a common API infra- structure aimed at increasing financial inclusion. With a largely unbanked population, MNOs facilitated mobile wallet services that allowed users to store money, make payments, and receive remittances directly on their mobile devices.

Challenge: Approximately 70% of Cambodians were unbanked, leaving them reliant on informal and often unreliable financial systems[8]. Traditional banks were inaccessible in rural areas, creating a financial divide. The challenge for MNOs was to provide an affordable and accessible financial service to connect these underserved populations.

Solution: By developing a common API, MNOs allowed fintech firms and other financial service providers to easily integrate with their networks. These APIs enabled interoperability across mobile wallets, banks, and fintech apps, creating an ecosystem where users could seamlessly transfer money, pay bills, and receive remittances via their mobile phones. Partnerships with microfinance institutions further enhanced these services.

Impact: This common API framework significantly increased mobile wallet adoption in Cambodia, wallet accounts surged from 13.6 million in 2021 to 19.5 million in 2022, and during the same period, online payment transactions soared to 1 billion, amounting to $272.8 billion in total[9]. Transactions were simplified, costs lowered, and financial literacy improved, with Cambodians using their mobile wallets for day-to-day transactions such as buying goods, paying for transport, and transferring money.



Conclusion: Cambodia's use of common MNO APIs for mobile wallets demonstrates the powerful role MNOs can play in financial inclusion. The collaboration between different sectors- telecommunications, fintech, and banking-created a sustainable, scalable model for delivering financial services to unbanked populations.

[8]Cambodia aims hybrid digital currency on blockchain at unbanked - Thompson Reuters Foundation (2021)

[9]The Rise of Fintech in Cambodia: Driving Growth and Financial Inclusion - The Fintech Times (2024)

Conversational Commerce in Thailand with API Integration

Overview: In Thailand, MNOs collaborated with fintech companies and e-commerce platforms to enable conversational commerce, leveraging APIs to integrate payment services into chat platforms like LINE and Facebook Messenger. This allowed customers to make seamless payments through familiar communication channels.

Challenge: While e-commerce was booming, many Thai consumers remained cautious about making online payments. Chat-based commerce was popular, but the process of shifting from conversation to payment was cumbersome, requiring users to exit chat platforms to complete transactions.

Solution: MNOs developed APIs that allowed fintech companies to integrate payment gateways directly into chat platforms. By partnering with messaging services, MNOs enabled users to make payments without leaving their chat sessions. The API infrastructure also supported multiple payment methods, including mobile wallets and credit cards.

Impact: The integration of payments into chat platforms dramatically improved the user experience. Transaction volumes increased by 30%, and businesses saw a 25% rise in completed transactions[10]. Small businesses and social sellers in particular benefited, as they could engage with customers, close sales, and accept payments all within the same chat environment.

Conclusion: Thailand's case highlights the effectiveness of MNO API integration in driving conversational commerce. By streamlining the payment process within popular chat platforms, MNOs enabled businesses to capture more online sales, while consumers enjoyed a more seamless and trusted shopping experience.

Enabling Digital Lending in Vietnam through MNO APIs

Overview: Vietnamese MNOs partnered with fintech companies to create digital lending platforms, leveraging customer data to assess creditworthiness and disburse microloans. Through APIs, MNOs facilitated real-time verification and mobile-based loan processing.

Challenge: Access to formal credit was limited in Vietnam, especially for small businesses and individuals without formal credit histories. Traditional banks relied on lengthy processes for credit assessment, often excluding low-income earners and those in rural areas.

Solution: MNOs created APIs that allowed fintechs to access telecom data, such as mobile usage patterns, payment history, and location data, to build alternative credit scoring models. These APIs enabled fintechs to automate loan approvals, making small loans accessible to those who would otherwise be excluded from formal financial services.

Impact: Within the first year of launch of the service, over 2 million microloans[11] were issued via mobile devices. Since the introduction of an API-based system, loan processing times have reduced from several days to just a few hours. Small businesses and individuals in rural areas are now able to access credit on demand, fueling entrepreneurship and economic growth.

Conclusion: Vietnam's success in making digital lending more accessible shows how MNO APIs can be used to overcome traditional barriers of scale in the financial sector.

By leveraging telecom data for credit scoring, MNOs have enabled fintechs to provide financial services to previously underserved populations.

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[10]The Next-Gen Digital Payment Trends Using Intelligent Chatbots - Team Haptik (2023)

[11]New Alternative Lending and Micro Lending Players in Vietnam - Fintech News Vietnam (2019)

Cross-Border Remittances in the Philippines via MNO APIs

Overview: In the Philippines, MNOs developed APIs to facilitate cross-border remittances, allowing overseas Filipino workers (OFWs) to send money home through mobile wallets. These APIs linked international remittance services to local mobile networks, enabling real-time transfers.

Challenge: OFWs often face high fees and slow processing times when sending remittances through traditional channels. Additionally, recipients in rural areas had limited access to banking infrastructure, making it difficult to receive funds.

Solution: MNOs partnered with global remittance providers to create APIs that allowed seamless integration between foreign financial institutions and local mobile wallets. This allowed OFWs to send money directly to mobile wallets in the Philippines, where recipients could withdraw funds at mobile money agents.

Impact: Cross-border remittances became faster and more affordable with the proliferation of digital wallets in the Philippines, noting that there were an estimated 258 million active digital wallet accounts in 2022, ranking the country fifth globally in digital wallet penetration, benefiting both senders and recipients[12]. The increased accessibility and lower costs made it easier for OFWs to support their families back home.

Conclusion: The success of cross-border remittances via MNO APIs in the Philippines demonstrates how telecommunications infrastructure can enhance financial services. The initiative improved the speed and affordability of remittance services, particularly for those in rural areas.

API-Driven Insurance Services in Indonesia

Overview: In Indonesia, MNOs collaborated with insurance companies to offer microinsurance products through mobile platforms. Using APIs, these partnerships enabled consumers to purchase, renew, and claim insurance policies directly via their mobile phones.

Challenge: Traditional insurance products were inaccessible to much of Indonesia's population, particularly in rural areas where insurance agents and banks were scarce. Insurance penetration remained low, especially among low-income groups.

Solution: MNOs created APIs that integrated with insurance providers to deliver mobile-based microinsurance products. These APIs enabled insurance companies to offer small-scale, affordable insurance policies that could be purchased using mobile airtime credit or mobile wallets. Policy details and claims processing were also handled digitally.

Impact: Increased offering in the market of Mobile-based microinsurance products. The availability of insurance services on mobile platforms allows for better financial protection against risks like health emergencies and natural disasters, particularly for low-income populations.

Conclusion: Indonesia's mobile microinsurance initiative shows the potential of MNO APIs to increase financial security. By enabling insurance services through mobile platforms, MNOs and insurance providers made it easier for underserved populations to access affordable and essential financial product.

[12]Philippines Rising: Leading the Digital Wallet Revolution - Thunes (2024)

Facilitating access to easy 2FA security protocols in Sri Lanka

Overview: In this use case, Axiata, a major telecommunications provider, deployed a single platform integrating three aligned APIs. This deployment focused on enhancing security, user experience, and platform reliability.

Specific Focus: A major component was the robust two-factor authentication (2FA) to secure transactions and customer data across multiple sectors. The emphasis on 2FA suggests its application in protecting sensitive operations such as mobile payments, access to financial services, or secure transactions in digital commerce.

Value Proposition: This approach simplified customer engagement by centralising security protocols and enhancing fraud prevention while providing a unified user experience. The consistent API structure ensured that Axiata's multiple operations, such as billing or identity verification, were secure and smooth. The project was also aligned with the national efforts to increase financial inclusion and promote the adoption of digital solutions.

Interoperator collaboration to enable the fintech sector in Indonesia

Overview: This initiative focused on the collaboration of the four Mobile Network Operators (MNOs) in Indonesia, implementing three aligned APIs in a coordinated launch to create a compelling offering for fintech adoption aimed at creating a more secure and enhanced end customer experience.

Specific Focus: Working together to coordinate the development and launch and the allocation of a lead operator, the industry was able to offer coverage for the vast majority of the market with a single interface point. The use of these APIs revolved around bolstering security, possibly with functionalities like authentication, identity management, and transaction integrity. The collaboration of four MNOs created a streamlined offering across mobile networks, including a single point of connection for payments, content delivery, and customer authentication across providers.

Value Proposition: This joint effort showcased the power of MNO collaboration in driving seamless customer experiences, access to enhanced market breadth and enhanced digital security in one of Southeast Asia’s most significant markets. The alignment of APIs between operators helped reduce friction for users, improve service quality and access, and address cross-network compatibility.

Seamless digital identity authentication with V-Key ID and Telco APIs from Bridge Alliance API Exchange (BAEx)

Overview: Bridge Alliance, a leading mobile alliance of 35 mobile operators collaborated with V-Key, a Singapore based mobile app security provider specializing in various industries, including banking and fintech sector, aimed at delivering a Universal Digital ID, that is privacy-preserving, consent-driven and works across all platforms and devices.

Challenge: The rise of scams in recent years has been alarming. Globally, majority of scams were delivered via phone calls or messages. In Singapore alone, malware scams ranked in the top 10 scams, with 1,899 reported cases and the total amount lost at least S$34.1 million (US$25.5m)[1].

This poses a challenge to businesses in the Financial Services Industry (FSI), where user authentication is crucial for digital logins and transactions, and two-factor authentication has primarily been via SMS. Fraudsters have used SMS as a key modus operandi for directing users to phishing sites and malware downloads.

Solution: We have launched the Bridge Alliance API Exchange (BAEx) to aggregate mobile network operators' (MNO) network authentication, user verification and other Open Gateway APIs. With BAEx, enterprises streamline the deployment of new services on MNO networks by accessing a common API framework, which provides secure, consistent and on-demand access to telco network attributes capabilities across multiple regions. Enterprises in the FSI sector are able to scale new services quickly as the initial integration is simple with no new development required for new markets.

For a start, BAEx is providing Silent Network Authentication (SNA)APIs, to power the authentication and fraud prevention needs we have identified, using telco real time data. Number Verification API allows businesses to confirm the phone number a customer provides is the same as the one they're using to access the online service or app. Verification occurs in a single step and is phishing proof, malware proof and reliable-i.e. more secure than SMS 2FA. No personal identification information is involved, and the user does not need to use an OTP or download an authenticator.

SIM Swap API allows businesses to verify that the SIM card has not recently been swapped and is still possessed by the rightful customer. These APIs serve not only FSI, but also e-commerce and over-the-top media services, enabling seamless mobile user authentication process for a positive user experience.

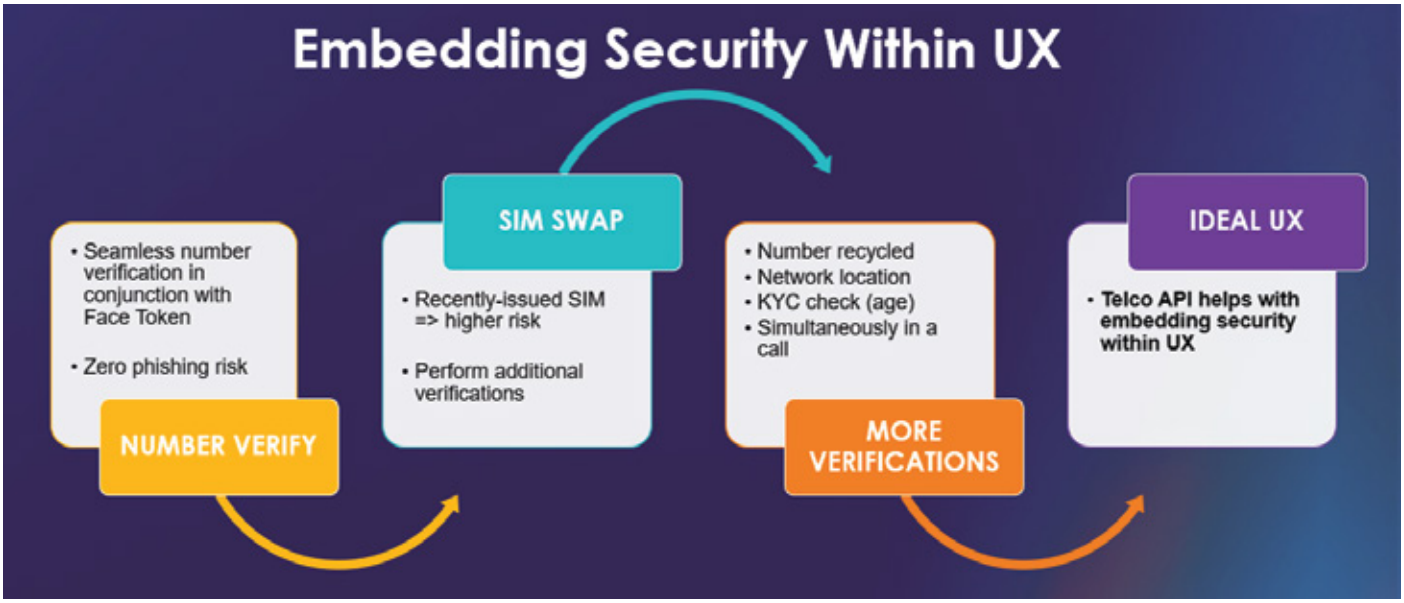
[1]Scam victims in S'pore lost $651.8m in 2023, with record high of over 46,000 cases reported | The Straits Times

V-Key ID integrates SNA APIs to enhance its authentication process by verifying that the phone number or SIM card used to access the service matches the registered identity. This seamless verification ensures that only the legitimate user associated with the phone number or SIM card, can access sensitive services. Using real time-telco data through SNA APIs, V-Key ID adds an extra layer of security, mitigating risks like SIM swap fraud and unauthorized account access.

This integration allows V-Key ID to provide a frictionless authentication experience, eliminating the need for manual steps such as SMS one-time passwords (OTPs). When a user attempts to access a service, V-Key ID leverages SNA APIs to verify the authenticity of the phone number in real time, ensuring it matches the registered identity. Simultaneously, V-Key ID employs advanced cryptographic methods, including secure key storage to validate the user's identity.

Sensitive information like biometric hashes, is securely stored within the app, and by utilizing telco-backed data for phone number validation, V-Key ID delivers a multi-layered authentication process. This includes confirming the legitimacy of the user's device, ensuring compliance with regulatory standards, and safeguarding privacy. The entire process allows users to access services without interruptions, while providing businesses with enhanced security and fraud protection. With this robust authentication framework, V-Key ID offers a scalable, privacy-preserving solution across various industries.

Working through BAEx, V-Key benefits from the commercial simplicity of a single contract with all the MNOs integrated on BAEx.



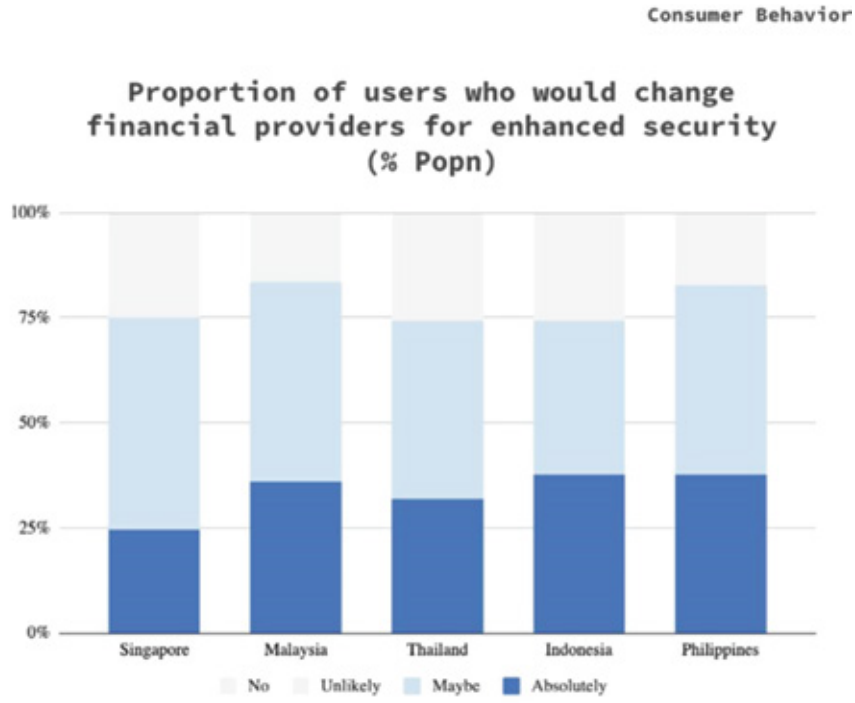
Conclusion: Through the use of telco APIs via BAEx, enterprises in the FSI sector can unlock and deliver tremendous value for their customers, starting with safe and secure transactions.

7. Use Cases for MNO APIs in Building Products and Services for Financial Services

The rapid evolution of mobile technology has reshaped the financial services landscape, and Mobile Network Operator (MNO) APIs are at the forefront of this transformation. As financial services increasingly shift towards digital-first models, MNO APIs offer essential capabilities to integrate mobile communication networks with fintech platforms. This enables seamless service delivery, operational efficiency, and enhanced customer experiences.

MNO APIs, such as identity verification, location data, and billing integration, empower financial institutions to offer personalised and secure services, especially in regions with limited banking infrastructure. For example, banks can utilise Identity Verification APIs to streamline Know Your Customer (KYC) processes by cross-referencing telecom data, ensuring quick and compliant onboarding of customers. Similarly, Location APIs can verify user locations in real-time, crucial for reducing fraud in services like loans or digital payments.

Over 75% of people could swap financial providers for better security



Source: Consumer Attitudes Toward Fraud and Opportunities for Mobile Network Operators in SEA, https://www.gsma.com/about-us/regions/asia-pacific/communities/apac-fintech-forum/

Moreover, APIs unlock innovative financial products. Credit scoring APIs that leverage telecom data (such as mobile usage patterns) provides an alternative means to assess creditworthiness, which is invaluable in regions where many individuals lack formal credit histories. These APIs help financial institutions extend micro-loans and other financial services to previously underserved populations, driving financial inclusion in markets such as Southeast Asia.

MNO APIs also enable enhanced fraud prevention and transaction security. SIM Swap Detection APIs play a critical role in identifying potential fraud by alerting banks to suspicious SIM activity that may indicate account takeovers. Combined with real-time transaction monitoring APIs, financial institutions can reduce fraud risks while ensuring secure, frictionless transactions.

By integrating MNO APIs, financial service providers can build robust digital ecosystems that deliver services more efficiently, scale their offerings, and reach wider markets. These use cases demonstrate the immense potential of MNO APIs in revolutionising financial services, ultimately driving growth, enhancing customer trust, and fostering financial inclusion across developing and established markets alike.

The integration of MNO APIs is no longer a luxury but a necessity for financial institutions looking to thrive in a highly competitive and digitally driven landscape.

Descriptions of all APIs are available on the GSMA website and all Camara APIs are available for download from Github.

API Portfolio	Anti-Fraud	Mobile Connectivity/ VAS			Fixed Connectivity	Cloud and Edge	Payments
API Product Family	**Subscriber Identity**	**Location**	**Network Quality/ Optimisation**	**Communication Services**	**Network Quality/ Optimisation**	**MEC**	**Payments and Charging**
CAMARA API	Call Forwarding Signal	Device Location Verification	Quality on Demand	SMS API	Home Devices QoD	Simple Edge Discovery	Carrier Billing
	Device Roaming Status	Device Geofencing Subscriptions	QoD Provisioning			Traffic Influence	
	Device Roaming Status Subscriptions	Device Location Retrieval	Connectivity Insights				
	KYC Fill In	Population Density Data					
	KYC Match						
	Number Verification						
	One time password						
	SIM Swap						
	SIM Swap Notification Subscription						
	Scam Signal						

Digital Identity Verification for Financial Services

Financial services companies can leverage MNO APIs for digital identity verification to streamline customer onboarding and comply with Know Your Customer (KYC) regulations. In Southeast Asia, where formal identification may be less accessible, MNOs can provide valuable mobile data such as SIM registration, usage patterns, and geolocation to authenticate user identities.

APIs Required:

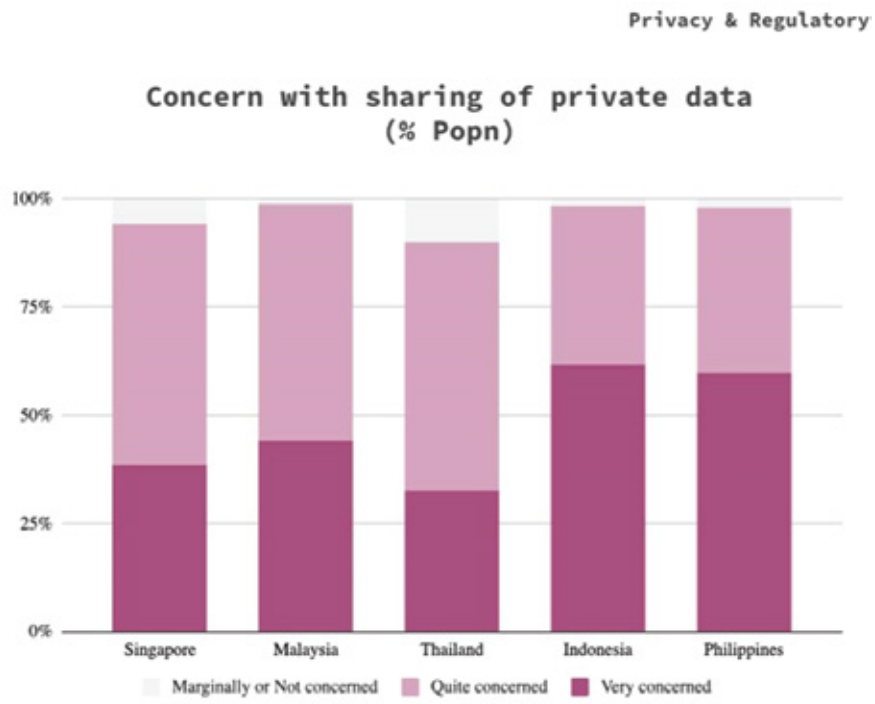
KYC Match API – This API allows financial institutions to verify a customer's identity against the MNO's subscriber data.

Number Verification API – Provides access to details about a user's SIM card registration, ensuring that the user's information matches what is provided to the financial institution.

Location Data API – Verifies whether the user's current location aligns with their registered address, enhancing fraud prevention.

By using these APIs, banks and fintechs can verify customer identities without requiring physical documents. This enhances the speed and efficiency of onboarding while reducing fraud risks, especially in regions where traditional identity verification methods may be slow or unavailable.

Across all countries consumers are concerned about data privacy



Source: Consumer Attitudes Toward Fraud and Opportunities for Mobile Network Operators in SEA, https://www.gsma.com/about-us/regions/asia-pacific/communities/apac-fintech-forum/

Fraud Detection for E-commerce Transactions

E-commerce platforms can use MNO APIs for real-time fraud detection by analysing patterns in mobile usage and SIM registration data. With a rise in e-commerce, fraudulent transactions are a growing concern, and leveraging MNO data can significantly reduce risks.

APIs Required:

SIM Swap Detection API – Alerts the platform if a user's SIM card has recently been swapped, which is a common indicator of fraud.

Number Verification API – Verifies whether the number used for the transaction matches the one typically associated with the user's number.

Location Data API – Flags transactions made from unusual or unexpected locations compared to the user's typical activity.

By utilising these APIs, e-commerce platforms can detect fraudulent transactions before they are completed, providing a layer of security that complements traditional fraud detection methods such as IP address checks and behavioural analytics.

Digital Lending Solutions for SMEs

Small and medium-sized enterprises (SMEs) in Southeast Asia often face difficulty accessing formal credit due to a lack of financial history. Digital lending platforms can use MNO APIs to assess creditworthiness based on alternative data sources.

APIs Required:

SIM Swap Detection API – Alerts the platform if a user's SIM card has recently been swapped, which is a common indicator of fraud.

KYC Match API – This API allows financial institutions to verify a customer's identity against the MNO's subscriber data.

Location Data API – Verifies the location and operational activity, useful in areas where formal address registration may be limited.

These APIs enable lenders to create more inclusive credit scoring models, helping SMEs access the financial resources they need to grow, even if they lack traditional credit histories.

Insurance Claim Verification

Insurance companies can use MNO APIs to streamline and verify claims, especially in regions with low digital infrastructure. By accessing telecom data, insurers can automate parts of the claim's verification process, reducing fraud and improving the speed of payouts.

APIs Required:

Location Data API – Verifies the claimant's location during the time of the incident (e.g., verifying if a vehicle was in a specific area during an accident).

KYC Match API – This API allows financial institutions to verify a customer's identity against the MNO's subscriber data.

These APIs can help insurers make more informed decisions, leading to faster claims processing and improved customer satisfaction while minimizing fraudulent claims.

Regulatory Compliance for Digital Finance

Digital finance companies in Southeast Asia must comply with a range of local and international regulations. MNO APIs can help businesses meet these requirements by providing telecom-related data to verify transactions and user identities.

APIs Required:

KYC Match API – This API allows financial institutions to verify a customer's identity against the MNO's subscriber data.

Number Verification API – Confirms that customers' mobile numbers are registered correctly, helping businesses stay compliant with data protection and user identity regulations.

These APIs make it easier for digital finance companies to maintain regulatory compliance across multiple jurisdictions, reducing the administrative burden and risk of penalties.

Telemedicine with Payment Integration

In Southeast Asia, telemedicine platforms can use MNO APIs to offer a more seamless user experience by integrating mobile payments for healthcare consultations. These APIs can also enhance user authentication and service accessibility.

APIs Required:

Number Verification API – Confirms that customers' mobile numbers are registered correctly, helping businesses stay compliant with data protection and user identity regulations.

Location Data API – Helps verify the patient's location to connect them with the nearest health care provider or meet jurisdictional licensing requirements.

Carrier Billing API – Provides seamless payment processing by integrating telecom billing with the telemedicine platform, allowing users to pay for services using their telecom accounts.

By utilizing these APIs, telemedicine platforms can offer secure, compliant, and easily accessible healthcare services across regions, making medical services more affordable and reachable in remote areas.

Conversational AI for Customer Service Automation

Conversational commerce platforms can enhance customer service by leveraging MNO APIs to personalize interactions and automate responses. By accessing real-time telecom data, businesses can tailor their AI-driven customer service bots to provide more relevant assistance.

APIs Required:

Number Verification API – Confirms that customers' mobile numbers are registered correctly, helping businesses stay compliant with data protection and user identity regulations.

Location Data API – Helps verify the patient's location to connect them with the nearest health care provider or meet jurisdictional licensing requirements.

SIM Swap Detection API – Alerts the platform if a user's SIM card has recently been swapped, which is a common indicator of fraud.

This set of APIs enables conversational commerce businesses to provide better, more contextual customer service, resulting in faster response times and improved customer satisfaction.

Telecom-Driven Loyalty Programs for Financial Services

Financial services companies can partner with MNOs to offer telecom-driven loyalty programs, where customers earn rewards or points for completing financial transactions like making payments or maintaining balances.

APIs Required:

KYC Match API – This API allows financial institutions to verify a customer's identity against the MNO's subscriber data.

Location Data API – Helps verify the patient's location to connect them with the nearest health care provider or meet jurisdictional licensing requirements.

Device Roaming Status API – Delivers customer behaviour data, helping financial services tailor loyalty offerings based on user preferences and telecom usage patterns.

This use case encourages customer retention and engagement by rewarding users for staying active with both financial products and telecom services, ultimately improving customer lifetime value.

API-Driven Insurance Verification for Healthcare Providers

Healthcare providers in Southeast Asia can use MNO APIs to verify insurance coverage instantly, making it easier for patients to access healthcare services without the usual delays associated with manual verification.

APIs Required:

Device Roaming Status API – Delivers customer behaviour data, helping financial services tailor loyalty offerings based on user preferences and telecom usage patterns.

KYC Match API – Confirms the patient's identity, ensuring that the person receiving treatment matches the one covered under the insurance policy.

This API-driven solution streamlines healthcare service delivery, reduces waiting times for patients, and helps healthcare providers improve operational efficiency by automating key parts of the insurance verification process.

Dynamic Pricing for E-commerce Based on Location Data

E-commerce businesses can use MNO APIs to implement dynamic incentivisation strategies, tailoring product quotes based on a customer's real-time location. This is particularly useful for location-sensitive products or services, such as food delivery or transportation.

APIs Required:

Location Data API – Provides real-time information about a customer's location, enabling the business to adjust quotes based on factors like delivery distance or local taxes.

Device Roaming Status API – Analyzes telecom data to understand customer behaviour, allowing e-commerce platforms to offer personalised offers or incentives.

This use case allows e-commerce businesses to optimise the sales pipeline in real-time, helping them capture more revenue while offering location-specific promotions or discounts.

Personalised Credit Offers for Financial Institutions

Financial institutions can leverage MNO APIs to offer personalised credit products by analyzing telecom data, to assess credit risk and tailor loan offers accordingly.

APIs Required:

Location Data API – Provides real-time information about a customer's location, enabling the business to adjust prices based on factors like delivery distance or regional demand.

Device Roaming Status API – Analyzes telecom data to understand customer behaviour, allowing e-commerce platforms to offer personalised pricing or discounts.

By using these APIs, financial institutions can provide more inclusive credit offerings, making it easier for underserved populations to access loans while managing risk effectively.

Seamless E-commerce Logistics Tracking via Telecom APIs

E-commerce businesses can enhance their logistics and delivery services by integrating MNO APIs to provide real-time tracking and updates to customers, ensuring more transparent and efficient order fulfilment.

APIs Required:

Location Data API – Tracks the real-time location of delivery vehicles or personnel, providing accurate updates to customers about the status of their order.

SMS API – Sends automated notifications to customers when their order status changes, such as when the order is out for delivery or has been delivered.

This use case improves the customer experience by providing greater visibility into the logistics process, reducing uncertainty and enhancing trust in e-commerce transactions.

Enhanced Customer Authentication for Conversational Commerce

Conversational commerce platforms can use MNO APIs to strengthen customer authentication during online interactions, ensuring that transactions or interactions are secure and personalized based on verified identity.

APIs Required:

KYC Match API – Authenticates the customer's identity during an online conversation, ensuring that sensitive transactions or interactions are only completed by the legitimate user.

SIM Swap Detection API – Detects recent SIM card swaps, which could indicate fraudulent activity, helping conversational platforms avoid security risks.

One-Time Password (2FA) API – Provides an additional layer of security by sending one-time passwords (OTPs) or verification codes to the customer's mobile number.

By integrating these APIs, conversational commerce platforms can enhance security and build trust with customers, ensuring that interactions remain secure and personalized.

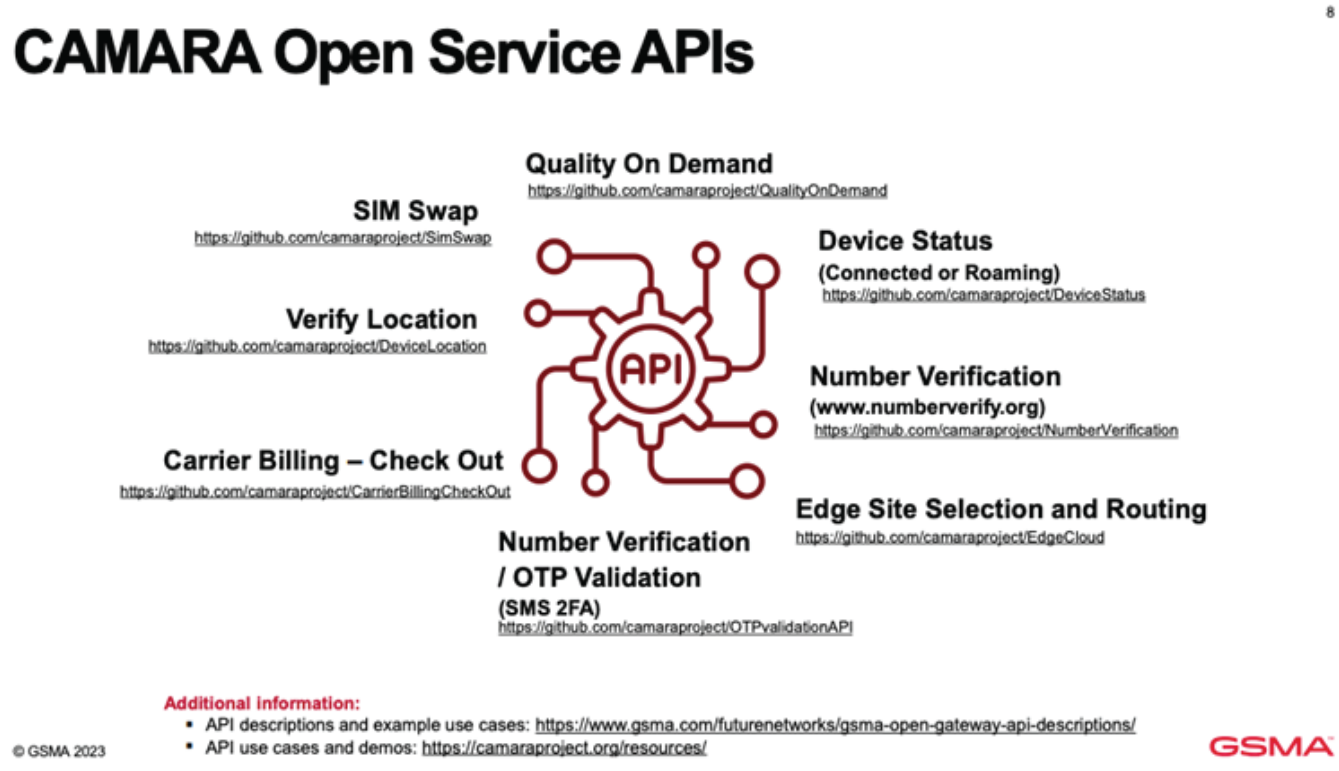
8. The Camara Telco Global API Alliance

The Camara Telco Global API Alliance is an ambitious initiative aimed at standardising and simplifying the development of APIs across telecommunications networks globally. Founded by major telecom operators, this alliance seeks to establish a unified framework that allows developers to build applications and services that can seamlessly interact with mobile network operators (MNOs) on a global scale. Camara's goal is to create a common set of APIs that ensure compatibility across various telco networks, enhancing developer efficiency and fostering innovation within the industry.

For developers, the Camara API Alliance offers numerous benefits. Providing a standardized API platform removes the complexities typically associated with integrating with different MNOs. In the past, developers faced challenges like varying API standards, inconsistent access protocols, and different regulatory requirements across markets. Camara's standardized APIs solve this by offering a unified interface, allowing developers to focus on creating innovative services without worrying about the underlying telco network intricacies. This, in turn, reduces development time and costs, making it easier for fintech, e-commerce, and other digital service providers to launch their solutions globally.

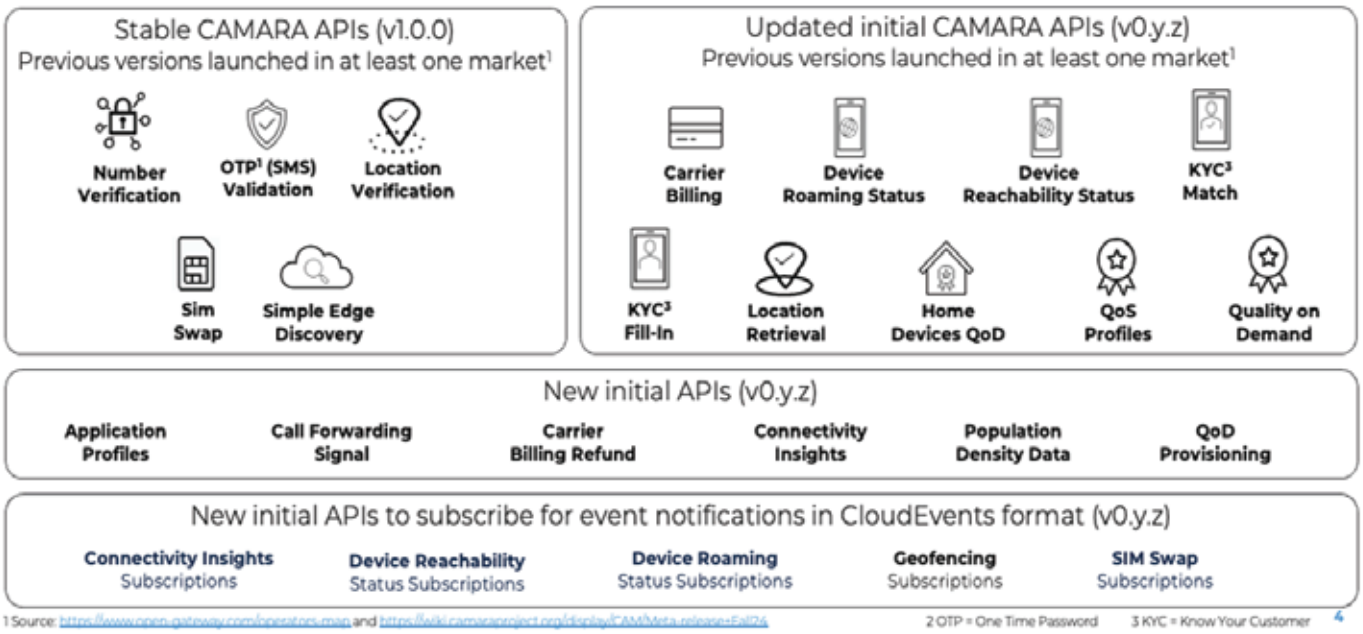
Additionally, the Camara Alliance opens the door to new opportunities for developers by providing access to a range of telecom network functionalities—such as location services, messaging, identity verification, and payment processing—through a single set of APIs. This enables developers to build cutting-edge applications that leverage the vast infrastructure of telecom operators, ensuring greater reach and performance for their products.

In conclusion, the Camara Telco Global API Alliance is a game-changing initiative for developers, offering tools to build scalable, innovative solutions while reducing the barriers to entry in the complex telecom ecosystem. By enabling greater API standardization, Camara is fostering a more open and collaborative environment that will help accelerate the digital transformation of industries worldwide.



Meta-release Fall 2024

CAMARA
THE TELCO GLOBAL API ALLIANCE



1 Source: https://www.open-gateway.com/operators.map and https://wiki.camaraproject.org/display/CAM/Meta-release+Fall24 2 OTP = One Time Password 3 KYC = Know Your Customer 4

GSMA

9. Conclusion

Unlocking the Potential of APIs in Fintech and Digital Commerce

Telecom APIs have undeniably transformed the financial services, digital commerce, and conversational commerce industries, particularly in Southeast Asia, where digital transformation is rapidly taking shape. As highlighted throughout this brochure, APIs have become integral to enabling a range of innovative solutions - from seamless cross-border payments and fraud prevention to real-time digital identity verification. The data-driven sections illustrate the profound impact telecom APIs are having on industries by enhancing efficiency, driving growth, and improving security.

The **API adoption rate** in fintech has seen impressive growth from 2018 to 2024, reflecting a growing reliance on these interfaces to power everything from digital lending platforms to cross-border payment systems. APIs have become a core enabler of financial inclusion, especially in regions where traditional banking infrastructure is limited. By 2024, more than 75% of fintech companies are expected to leverage APIs to deliver key services such as real-time payments, lending, and data integration. This trend is a testament to the value that APIs bring in simplifying complex processes and enhancing customer experiences.

Moreover, **cross-border payment APIs** are a critical component of global commerce today. Businesses and consumers alike are increasingly turning to API-based payment solutions to reduce costs and processing times. APIs allow seamless currency conversions, low transaction fees, and real-time settlements, which are vital for driving international trade. The growth of cross-border payment APIs, particularly in emerging markets like Southeast Asia, shows a clear shift towards a more accessible and user-friendly payment infrastructure.

Fraud prevention is another key area where APIs have shown their potential. **API-based fraud detection systems** have significantly reduced financial fraud, thanks to their ability to verify transactions in real-time, detect SIM swaps, and monitor location data for unusual activity. These systems have drastically improved the security of financial transactions, reducing fraud rates by up to 40% in some regions, as illustrated in the fraud detection statistics.

The **MNO API market** is poised for explosive growth, with revenue projections indicating a rise from $312.83 billion in 2024 to $603.66 billion by 2030.

For fintech developers and companies, the message is clear: embracing telecom APIs is no longer optional but essential. To remain competitive and innovative, businesses must incorporate APIs into their solutions to drive growth, improve customer experiences, and stay ahead of the curve. By leveraging APIs, fintech firms can unlock new revenue streams, create personalised financial products, and ensure secure, seamless user transactions. As the digital economy continues to expand, telecom APIs will remain at the forefront of technological advancement, shaping the future of financial services and commerce across the globe.

Enhanced Security APIs

MNOs can offer APIs for two-factor authentication, SIM-swap, and fraud prevention to strengthen account security and reduce fraud across financial platforms.

Fraud Prevention APIs for Digital Commerce

Real-time transaction verification and location-based fraud detection APIs can help secure both digital commerce and social commerce platforms like WhatsApp, Line, and Facebook Messenger.

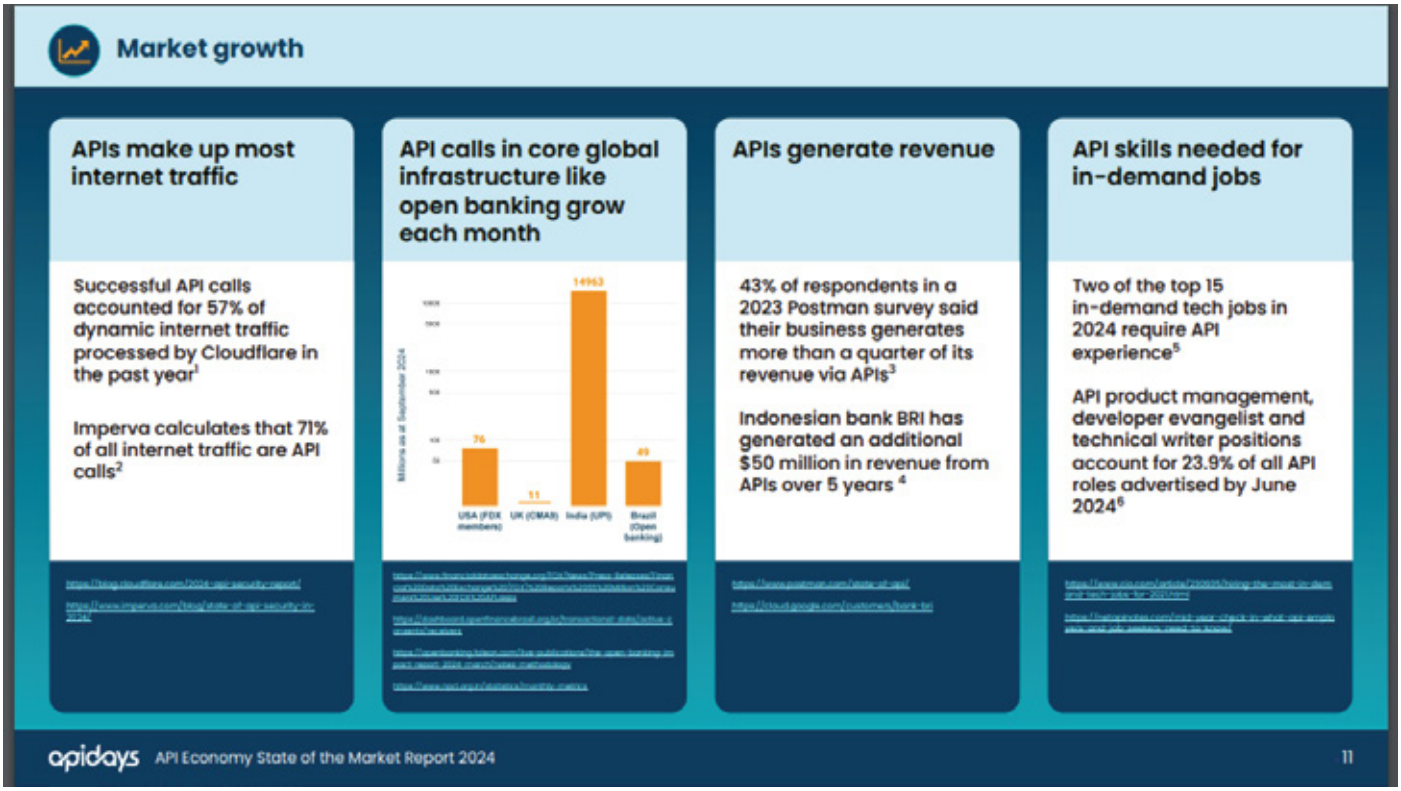
Mobile-First Financial Services APIs

E-wallet integration and mobile verification APIs will streamline transactions, improve security, and enhance the user experience in high mobile penetration markets.

Privacy-Focused APIs

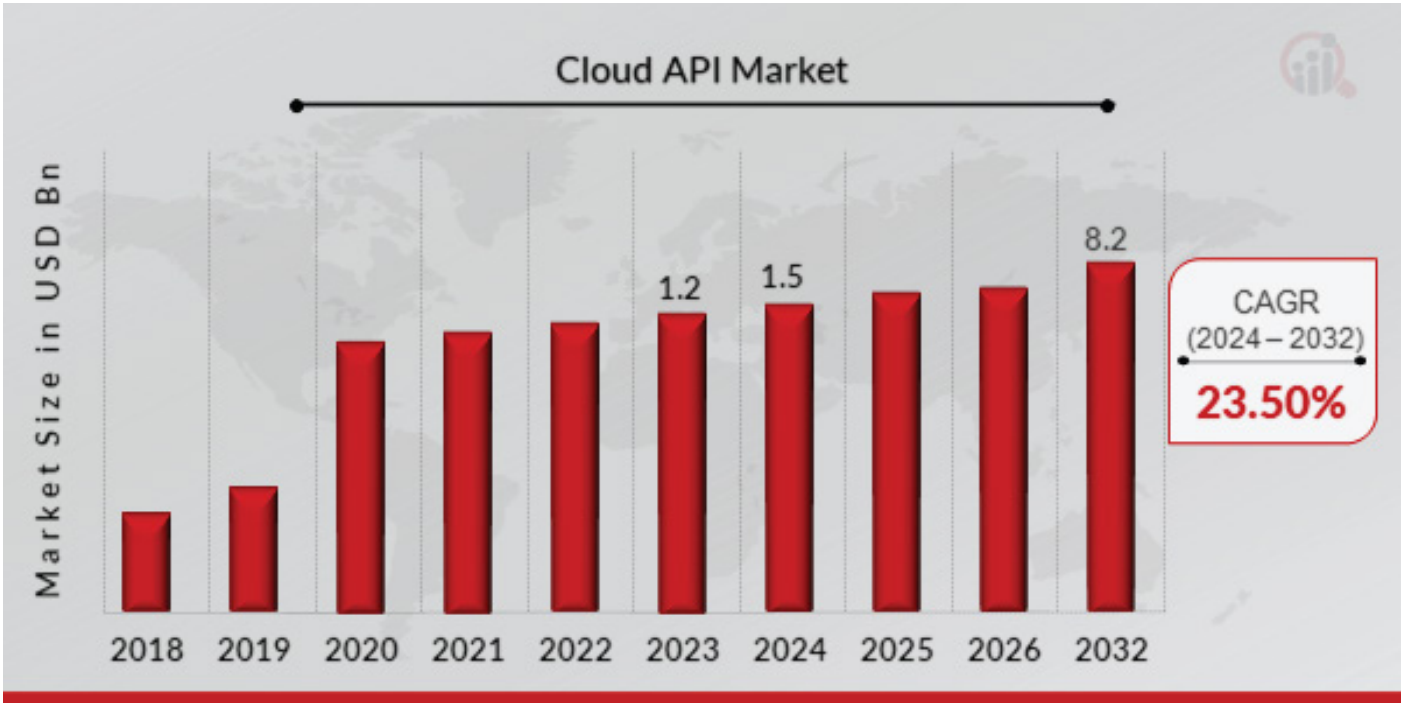
In privacy-conscious markets, MNOs should develop transparent data-sharing and granular consent management APIs to build trust and offer users greater control over their personal information.

For fintech developers and companies, the message is clear: embracing telecom APIs is no longer optional but essential. To remain competitive and innovative, businesses must incorporate APIs into their solutions to drive growth, improve customer experiences, and stay ahead of the curve. By leveraging APIs, fintech firms can unlock new revenue streams, create personalized financial products, and ensure secure, seamless transactions for their users. As the digital economy continues to expand, telecom APIs will remain at the forefront of technological advancement, shaping the future of financial services and commerce across the globe.



Published: September 2024 Written and researched by Mark Boyd, Mehdi Medjaoui, and Spencer Perkins. Design by Rebeca Vittorazo. Contact: mark@platformable.com

Figure 1: Cloud API Market Size, 2024-2032 (USD Billion)



Source: Secondary Research, Primary Research, MRFR Database and Analyst Review, https://www.marketresearchfuture.com/reports/cloud-api-market-2572

GSMA

GSMA APAC FINTECH FORUM

The GSMA APAC Fintech Forum brings together innovators, services providers and the digital economy to collectively embrace a responsibility to build safe, secure and inclusive digital nations. Bringing together GSMA's global industry power of events, research, technology programs, APAC Fintech Forum unites the mobile economy in SE Asia to create, innovate and scale services for the Connected Fintech and Commerce sectors with the power of the region's mobile network operator APIs and conversational messaging.

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