



# The API Phenomenon in Financial Services



**Keng Mun Lee**  
Asia Pacific Digital  
Channels and Data  
Head, Treasury and  
Trade Solutions, Citi

## The Financial Industry is Evolving

Everybody likes movies. In the past, to watch a film you would have to get dressed, drive to a cinema, buy a ticket and then find your seat in the dark amongst the crowded masses.

With innovations such as cable and Internet TV, we can now enjoy a film piped straight into our homes, relaxing alone on the sofa – in our pyjamas, if we feel like it! And it is the same with banking – why go to a branch or log in to various Internet banking sites when banking services can be piped directly into your company's infrastructure, complementing your sales and fulfilment models, operating controls and processing instantaneity?



**Mayank Mishra**  
Global Head of Digital  
Channels, TTS

## Banking is Open for Business

Open Banking is fast becoming a global phenomenon across the world's markets.

Governments are actively encouraging initiatives and rolling out frameworks to enable a structured and transparent approach to data sharing between banks, non-bank providers and FinTech companies. The European Union's second Payments Services Directive (PSD2) and the UK's Open Banking Initiative are both well-publicised programs that mandate the use of standardised open APIs (Application Programming Interfaces) to facilitate access to transaction and account data.

The Monetary Authority of Singapore (MAS), is encouraging financial institutions to adopt APIs to drive banking innovation, consumer protection and transparency. The Hong Kong Monetary Authority (HKMA) recently launched an industry consultation for an Open API framework. The National Payments Corporation of India (NPCI) has introduced the concept of tokenized payments through its Unified Payment Interface (UPI); just as Thailand has done with PromptPay, and Singapore with PayNow.



Authorities are also pushing for a breakthrough in cashless payments to help the digital economy reach its full potential. This is particularly true in developing countries. The use of APIs to digitize payments can drastically reduce settlement costs for merchants, while driving the growth of e-commerce by efficiently enabling account-based transactions and collections beyond the costly and often-limited use of credit cards.

## APIs Power the New Banking Landscape

An API is a controlled conduit for the transmission of information between systems. It takes a message and tells a system what you want to do. It then returns the response and supporting information back to you – directly to the system that you operate.

The future of the digital world lies in platforms that connect to one another through multiple API services. This creates opportunities for greater automation and integrated efficiency. APIs also help applications to be developed quickly and responsibly in a "future proof" manner, laying the foundations for superior customer-centric experiences.





## Shining a Spotlight on API Opportunities

In today's competitive environment, businesses are focused on growth, better management of payments and working capital, and providing an experience of instantaneity and seamlessness to their customers.

To service these priorities, banks and corporations are jointly focused on removing the friction associated with cash management from banking processes in a safe and secure manner. This includes accessing balances, reconciling sales proceeds against credit limits, sending instructions to be executed and receiving confirmation of finality.

Because APIs can be embedded in an organization's operating software of choice, it reduces the dependency on banking portals, enabling information to be received and actions to be executed directly and more efficiently from these platforms. This frees up treasury, sales, fulfilment and service staff to focus on what they should do best – growing sales, managing their operational processes and servicing their customers.

There are myriad ways in which APIs can potentially create significant value for organizations. On one hand, APIs transcend a wide range of account functions, from extracting end-of-day or intra-day statements to checking balances real-time, to obtaining accurate transaction status quickly. On the other hand, they can act as an avenue to directly connect with a bank to facilitate e-commerce transactions, integrating the settlement process so that the end customers can pay through the channels that you define. Additionally, they can be used as a new medium for boosting the efficiency of a treasury function. This diversity of service is a core strength of APIs as it promotes convenience and choice, and the ability to facilitate that convenience and choice through your own business model.

## Citi's Value Proposition

As an international bank, we think and act globally. When we first launched APIs for institutional banking services, we immediately enabled them to facilitate the most frequently used functionalities and to support almost all payment types in all countries in which Citi operates. More recently, we launched an API onboarding portal to set up a consistent implementation process for customers in all markets, which speeds up the API testing and implementation process.

Citi has extensive experience in advising corporations, e-commerce companies and non-bank financial institutions on what APIs are most suited to their operating models and business objectives. Many are actively using APIs to integrate our services in a wide variety of scenarios.

Citi is also the first global bank to launch APIs that are embedded in Treasury Management System (TMS) providers. This includes FIS, which has connected its Trax corporate payment factory to enable seamless integration with Citi's core treasury management functionalities, covering payment initiation, transaction status inquiry and balance inquiry.



## Remaining Vigilant Against Cyber Threats

Finally, as an international bank built on trust, cybersecurity remains a cornerstone of anything we do with digital experiences and connectivity. Thus, when considering APIs, you should always seek to partner with an established financial institution with experience in managing digital security through a multi-layered approach that comprises holistic systemic, process and people controls.

Citi's APIs can be used in highly diverse use cases – from enhancing processing efficiency in treasury and finance management; to the integration of sales and customer acquisition incentives; to providing a truly seamless experience in customer service. They are real opportunities available today to help you achieve your organization's potential for an integrated operating model, greater operational efficiency and superior customer experience. We look forward to your feedback and collaboration on this very exciting phase of open banking transformation!





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# CITICONNECT API OVERVIEW

# CitiConnect APIs



## Account Balance Inquiry

- Account Balance API allows Citi's clients to access ledger and available balance
- Inquiry can be made for more than one account
- Response is a customized camt.052 with balances only (i.e., no transactions)

## Authentication Service

- Through the Authentication Service API, clients can securely connect to Citi's infrastructure and access a wide range of API services
- Uses OAuth2.0 standard for authenticating API calls



## Branch Holiday Schedule

- Inquire if a specific date in a country is a holiday
- JSON format

## Cancel or Modify Payments

- API to cancel or modify previously initiated payments



## Credit/Debit Push Notification

- Push API to notify customer of a credit or debit entry in an account

## Cutoff Times

- Inquire about cutoff time information of any branch in Citi
- JSON format



## Direct Debit

- Initiate Direct Debit instruction in Australia, Singapore and Hong Kong
- ISO XML Debit v2 format (pain.008.001.02)

## FX Rate Quotation from FX Pulse

- Retrieve FX rates from FX Pulse given currency pair combination



## Instant Payment and Collection

- Initiate instant payment and collection
- Payment Initiation requests can be made for more than one payment
- ISO XML Credit v3 format (pain.001.001.03) is used for instant payment
- ISO XML Credit v3 format (pain.008.001.02) for instant collection





## Liquidity Reports

- Retrieve various liquidity reports

## Payment Initiation

- Initiate payments through Citi's existing footprint globally
- Payment Initiation requests can be made for more than one payment
- ISO XML Credit v3 format (pain.001.001.03)



## Payment Status Inquiry

- Payment Status Inquiry can only be made for one payment
- Inquire about payment status after initiating a payment
- Response follows ISO XML standards (pain.002.001.03)
- Payment Status Push Notifications automatically sends payment status information via API to client applications

## Request To Pay – India UPI

- Initiate collection through India UPI
- India Transaction Inquiry and Push Notification APIs are also enabled for clients to inquire the status of collections and receive notifications upon successful collection
- JSON format



## Statement Inquiry

- Obtain account statements for a given period. For example, requests can be made for more than one account and more than one date
- Upon successful processing, a Reference ID is shared to retrieve the statements at a later time

## Statement Retrieval

- Retrieve the actual statement based on a Reference ID provided by Statement Inquiry API
- Statement Retrieval requests may only be made for one Reference ID
- ISOXML v53 (end-of-day statement camt.053.001.02) or SWIFT MT940 are generated
- Intraday Accounts Statements



## SWIFT GPI

- Ability to monitor and track cross-border payments via SWIFT GPI

## User Management

- Create enable/disable users in CitiDirect BE®



## WorldLink® FX Rate Inquiry


- Inquire about FX rate from WorldLink given currency pair combination
- Response Rate, Expiry Date/Time and Rate Quote ID which can be used for WorldLink Payment Initiation API

## WorldLink Payment Initiation and Status Inquiry

- Initiate WorldLink payments and inquire status of the payment







SEAMLESS  
CLIENT  
EXPERIENCE



# Instant Mutual Fund Redemption

## The Company

One of the world's largest asset management companies that provides mutual fund investments for institutional, retail, and high-net-worth investors.

## The Challenge

In the highly competitive world of asset management, speed to market and the ability to provide the best possible service may make the difference between profit and loss. The company was looking to differentiate itself against its competitors by providing its customers in both the retail and institutional space with *instant* redemptions of mutual funds. By doing so, the company would be able to position itself as a preferred investment service provider.

Customers may use the redeemed proceeds immediately to invest in other products, which promotes greater trading activity and cross-selling of the company's suite of investment products.

## The Solution

To address these challenges, the company is able to tap onto CitiConnect API to facilitate instant mutual fund redemptions in a way that fits its workflow yet provides superior client experience:

### STEP 1

Investor (retail or institutional) logs on to company's website

### STEP 2

Investor provides bank account details for the crediting of proceeds

### STEP 3

Investor chooses mutual fund units to redeem

### STEP 4

Company processes redemption and investor's account is credited instantaneously upon successful redemption

### The solution is powered by the following CitiConnect APIs:



Authentication of company instruction



Payment initiation via Immediate Payment Service (IMPS) in India



Payment status inquiry to confirm that payment is successfully credited

## The Benefits

- Increase rate of customer growth and asset under management (AUM) for the company
- Key marketing differentiator against competitors in market share and customer stickiness
- Significant improvement of customer experience

## Potential Uses

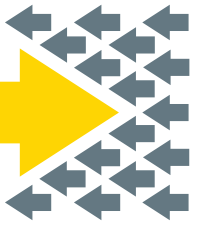
- Enable payments to virtual beneficiary details, such as email address, mobile number, and state identification numbers, where the capability exists for selected countries
- Expansion of solution to countries that progressively support real-time payments
- Extension of solution to other services where instant disbursements may be a competitive advantage such as insurance claims with minimal proof requirements, or non-life insurance policy redemptions

# Instant Loan Disbursement



## The Company

Leading financial services company in India that specializes in providing retail loans.



## The Challenge

In the highly competitive landscape of retail finance, the company needed a solution that digitizes its cash loan services, where approved loans may be disbursed to the borrower electronically. Furthermore the company wanted to differentiate itself through exemplary customer experience by ensuring that the loan disbursement is instantaneous.

## The Solution

Pivotal to the solution are CitiConnect APIs that enable the company to make payments *instantly* at the time of loan approval:

### STEP 1

Individual borrower goes to one of the company's branches to apply for a personal loan by pledging appropriate collateral

### STEP 2

While at the branch, the company performs the necessary due diligence associated with the borrower, including Know Your Customer (KYC) credit checks using the applicant's Aadhar identification number, and assessment of the value of the collateral pledged

### STEP 3

Upon satisfactory approval, the company authorizes instantaneous disbursement of the said loan to the borrower's bank account number

### STEP 4

The disbursed loan is received in the borrower's bank account before leaving the branch

### The solution is powered by the following CitiConnect APIs:



Authentication of company instruction

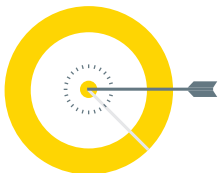


Payment initiation via Immediate Payment Service (IMPS) in India



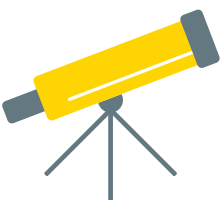
Payment status inquiry to confirm that payment is successfully credited

## The Benefits



- End-to-end digitized cash loan application and disbursement service that reduces the risk of fraud
- Elimination of risk of theft or misdirected payments as all disbursement are cashless, electronic and instant
- Significantly enhanced customer experience, where loans may be disbursed in as short as 15 minutes
- Faster rate of loan asset growth through differentiation of service levels against the company's competitors

## Potential Uses



- Extend instant loan disbursement to other convenient modes of tokenized payment details without the need for account numbers, such as United Payment Interface (UPI) in India, PayNow in Singapore or PromptPay in Thailand
- Expand instant payments to refunds for e-commerce purchases, where a purchaser may be reimbursed the value of the purchase as soon as the item is returned to a local collection centre



# Instant Refund Processing

## The Company

Global leading online marketplace operating extensively in Asia.

## The Challenge

Due to the explosion of online retail activity in Asia, the company is going through significant increase in commercial scale. Correspondingly, the company is also experiencing an increase in the volume of goods returned by customers for refunds. Its cumbersome refund process, which took at minimum several days before the customer is able to receive the refunded amount, was emerging as an area of concern that negatively impacted customer experience and discouraged repeat purchases from its customers.

## The Solution

Working with Citi, the company is able to implement a refund process that incorporates CitiConnect API, which streamlines its goods return process and enables the payment of refunds to its buyers instantly:

### STEP 1

Customer returns an item to the company by post or in person

### STEP 2

After the returned item is vetted, the company calculates and approves the amount to be refunded in its refund processing system

### STEP 3

A payment instruction is then automatically triggered and authorized for the bank to pay the refund amount

### STEP 4

Customer is notified of the refund status

The solution is powered by the following CitiConnect APIs:



Authentication of company instruction



Payment initiation via a choice of local payment instruments



Payment status inquiry to confirm that payment is successfully made

## The Benefits

- Improved efficiency as the refund process is integrated with payment instructions via API, as opposed to separate manual processes between the refund processing system and the payment authorization system
- Improved customer experience which increases the customer's confidence to be repeat purchasers, as they are assured of faster receipt of refunds

## Potential Uses

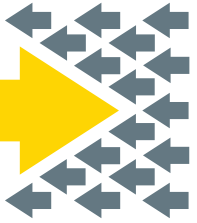
- Compensation disbursement to airline passengers during flight delays
- Disbursement of goodwill payments in response to genuine customer complaints

# Instant e-Wallet Top Up



## The Company

Global payment processing company that offers e-wallet capabilities, with ambitious country expansion and market share growth targets.



## The Challenge

To increase digital wallet adoption in developing countries with low credit card penetration amongst the local population, the company needed to grow its e-wallet business by enabling users to fund their e-wallets via methods other than credit cards. For such countries, funding via a user's bank account is a viable and efficient digital alternative.

## The Solution

By means of CitiConnect API, which enables e-wallet top-ups via a "request to pay" instruction from the user's own account at any bank, the company is able to transfer funds either instantly or on a schedule during different times in the day.

### STEP 1

User registers for an e-wallet with the company

### STEP 2

User stipulates amount to top-up the e-wallet from own bank account

### STEP 3

Company triggers "request to pay" instruction via API to the local real-time clearing network (or direct debit network)

### STEP 4

User is asked to approve the "request to pay" instruction

### STEP 5

Once approved, another API confirms to the company that funds are debited real-time (or successfully earmarked) from the user's bank account

### STEP 6

With payment finality attained, funds are reflected in the user's e-wallet, which is available for immediate use

### The solution is powered by the following CitiConnect APIs:



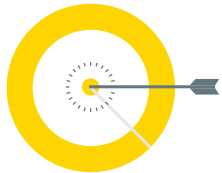
Authentication of company instruction



Payment initiation via "request to pay"



Payment status inquiry to confirm that payment is successfully made

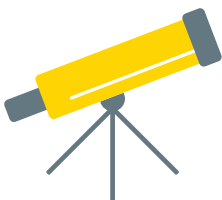


## The Benefits

- Company is able to provide an alternative avenue for individuals who do not have credit cards to top up their e-wallets
- Company benefits from significantly lower interchange cost as compared to that of a credit card

## Potential Uses

- Trigger "request to pay" instruction as an alternative payment mode other than credit cards for online shopping or transfers between e-wallets
- Payments may be made to virtual payment addresses, such as email addresses, mobile numbers or government IDs, if such capabilities are supported in the country of the receiving party

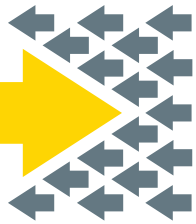




# Enabling International and Cross-Currency Payments

## The Company

Leading Internet-only bank in Asia that operates solely with a mobile app and provides a range of domestic and international payment services.



## The Challenge

Having successfully launched a domestic mobile banking service to its customers, the company wanted to enable its customers to make remittances in multiple currencies worldwide.

## The Solution

In partnership with Citi, the company is able to integrate its mobile app services by means of CitiConnect API, thereby enabling real-time FX rates quotation and international remittances:

### STEP 1

User logs in to the company's mobile app to make a foreign currency payment

### STEP 2

The company uses an API to present an exchange rate quote for requested currency pair

### STEP 3

User accepts the quoted exchange rate and confirms the payment instruction

### STEP 4

Company debits the user's account in local currency and instructs the payment in foreign currency through Citi via another API

### The solution is powered by the following CitiConnect APIs:



Authentication of company instruction



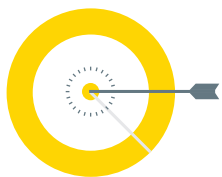
FX rate quotation valid for a specified duration



Payment initiation via cross-border wires

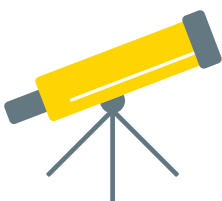


Payment status inquiry to confirm that payment is successfully made



## The Benefits

- Availment of a highly efficient foreign currency payments process to the company's customers
- Company gets preferred FX rates via Citi's global platform



## Potential Uses

- Real-time FX rates quotation in an e-commerce transaction, where a buyer in a different country may be presented a guaranteed FX rate, translated into an exact amount to debit in local currency from its bank account

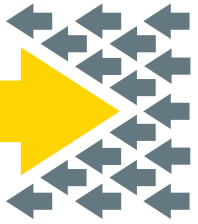


# Instant Insurance Claim Reimbursement



## The Company

A world-leading insurer with more than 88 million retail and corporate customers



## The Challenge

With digitization being an overarching part of the company's business architecture, it is continuously looking for ways to improve interactions with clients and differentiate itself from competitors. More specifically, the company was looking for a solution that would allow it to digitize and accelerate the insurance claims and reimbursement experience for its policyholders. It wanted to offer its customers instantaneous electronic reimbursements of their claims, instead of sending them checks.

## The Solution

The company chose CitiConnect API solutions for enhancing its customers' insurance claims and experiences along with streamlining the company's own internal processes.



### Insurance

#### STEP 1

A policyholder buys insurance online or via an agent, in the process providing key data such as name, ID card number, phone number and email address

#### STEP 2

The policyholder initiates an insurance claim online, providing the required proof-of-claim documentation

#### STEP 3

The company approves the claim and issues an electronic payment immediately

### The solution is powered by the following CitiConnect APIs:



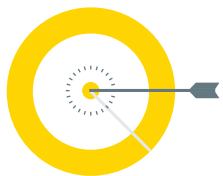
Authentication of company instruction



Payment initiation



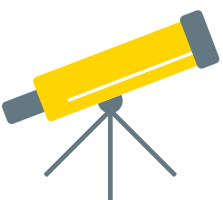
Payment status inquiry to confirm that payment is successfully made or credited



## The Benefits

- Reduction in manual processes and real-time visibility into payments
- More efficient payment reconciliations, particularly compared to check payments, which can be stalled, rejected or go uncashed
- Sets the company apart from competitors and provides a platform for attracting more customers

## Potential Uses



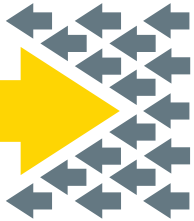
- Extend the solution to the instant collection of insurance premiums and combine it with statement QR codes or tokenization, such as through India's unified payment interface
- Enable payments to virtual payment addresses, such as email addresses, mobile numbers and government ID numbers, in countries where the capacity exists



# Instant Cash Collection via QR Codes

## The Company

Leading online marketplace operating extensively in Asia.



## The Challenge

In certain Asian markets, cash payments made at the time merchandise is physically delivered to purchasers remain a popular form of payment. However, collection processes that depend on delivery couriers or drivers to collect cash payments are fraught with inefficiencies and risks. Such collections, among other things, provide no visibility into the funds handed over until the following day, creating delays in recognizing and reconciling receivables.

## The Solution

A CitiConnect® API solution allows delivery drivers to initiate electronic collections via a QR code, on-the-spot. Customer scan then make electronic payments instantly, with immediate confirmation going to the driver so that the goods can be released.

The company offers two QR-based methods for its customers to make their payments.

In one option, the driver uses a company-provided mobile device to call up the customer's invoice and generate an invoice-specific QR code. The customer then scans the code using his or her phone and initiates an electronic payment. The driver is notified immediately of the successful payment and releases the customer's merchandise.

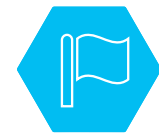
In the second option, the customer generates a QR code to authorize payment.

The customer opens up their bank app or eWallet apps and generates the QR Code from the app. The driver scans the code, which initiates a direct debit from the buyer's bank account. When the payment has been successfully credited to the seller's account, Citi sends an instant notification and the driver releases the merchandise to the buyer.

### The solution is powered by the following CitiConnect APIs:



Authentication service



Instant credit notification



Collection initiation via QR code



Collection status inquiry so that drivers can release goods

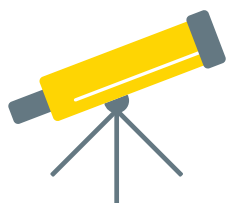


## The Benefits



- Reduction in risks associated with delivery personnel picking up and transporting cash
- Instant, end-to-end visibility into payments made
- Ability to automatically reconcile transactions because the QR code creates a unique collection code for each collection request

## Potential Uses



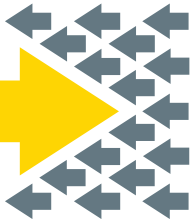
- Extend the solution to bill payments, where the company can print QR codes on customers' monthly bills, which customers can then scan and use to pay their bills instantly

# Blockchain-based Solutions for Accelerating Global Payments



## The Company

Global leader of corporate insurance and risk management solutions, including captive insurance programs



## The Challenge

Captive insurance programs established by multinationals to self-insure can span many countries and cover hundreds of millions of dollars of insured assets. These complex structures require the company, as the “fronting” insurer, to manage and exchange documents and payments associated with policies and claims across geographically dispersed businesses of its captive insurance customers. The company wanted to streamline and automate processes that can involve thousands of emails, exchanging massive data files and managing domestic and cross-border payment transfers.

## The Solution



The company created a pioneering blockchain prototype based on Hyperledger Fabric 1.0. The new prototype allows entities that are part of a captive insurance program to exchange documents and information in real-time across three common processes: annual policy renewals, premium payments, and claims submissions and settlements.

A CitiConnect® API solution incorporated into the prototype leverages blockchain’s distributed ledger capabilities to record and conduct payment transactions. The Citi solution provides straight-through payment processing, gives participating parties around the world real-time visibility into payment flows, and automates reconciliations.

**The solution is powered by the following CitiConnect APIs:**



Authentication of payment instructions

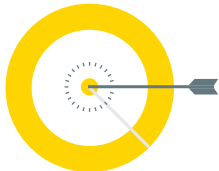


Collection initiation via QR code



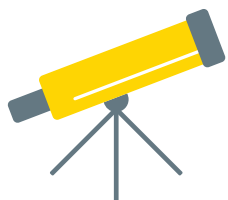
Payment status inquiry to confirm that payment is successfully made

## The Benefits



- Reduction of emails and real-time sharing of electronic documents among the “fronting insurer”, captive owner and program participants
- Acceleration of document and payment processing, decreasing the time from start to policy, policy to premium, and claim to settlement
- Transparency into document and payment flows among multiple parties, simultaneously

## Potential Uses



- Extend the application from two initial types of captive insurance policies, professional indemnity and property, to other types of insurance



# WorldLink Rate Inquiry and Payment Initiation

## The Company

One of India's leading banking and financial services groups, with the banking business catering to retail and corporate customers across urban and rural India.

## The Challenge

In the highly competitive landscape of retail banking business in India, the company needed a solution that digitizes and streamlines its overseas remittance services for retail customers. Furthermore, the company wanted to differentiate itself through exemplary customer experience by ensuring that the cross-border payments are simple, flexible and secure.

## The Solution

To enable the seamless FX transaction services for its retail customers, the company has adopted Citi's WorldLink® Services API for direct access to Citi's WorldLink® Payment Services. The company's mobile app can provide a real-time FX rates quotation through WorldLink® FX Rate Inquiry API upon customers' request. Once customer accepts the exchange rate and confirms payment, the company will execute the FX transaction via the WorldLink® Payment Initiation API.

### STEP 1

User logs in to the company's mobile app to make a foreign currency payment

### STEP 2

The company presents an exchange rate quote for requested currency via WorldLink® FX Rate Inquiry

### STEP 3

User accepts the quoted exchange rate and confirms the payment instruction

### STEP 4

Company debits the user's account in local currency and instructs the payment in foreign currency through Citi via the WorldLink® Payment Initiation API

The solution is powered by the following CitiConnect APIs:

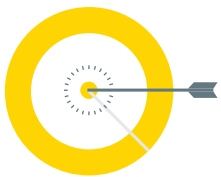


WorldLink FX Rate Inquiry



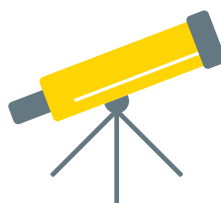
WorldLink Payment Initiation

## The Benefits



- Availability of a highly efficient foreign currency payments process to the company's customers
- Company can provide cross-border payments in simple, flexible and secure manners, creating competitive advantage in the retail banking business

## Potential Uses



- Real-time FX remittance in an e-commerce transactions, where a buyer in a different country may be presented a real-time FX rate, translated into an exact amount to debit in local currency from his/her bank account.

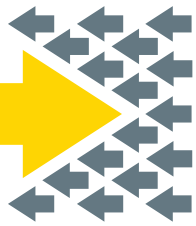
# Enabling real-time collections by using UPI (Unified Payment Interface) along with API



## The Company

Our client is the fastest growing telecom company in India, with over 300 million subscribers. The company has a very strong Customer engagement with high monthly average data & voice consumption. We have processed 2.5MM+ transactions in the 1st month of launch

## The Challenge



Our client provides its customers with a mobile app for recharging their pre-paid accounts and to buy other services. Customers can choose from different payment methods including cards, wallets, bank account and UPI payments. Our Client used a Payment Service Provider (PSP) to process UPI requests through an indirect method that integrated the telecom's app with the PSP's app due to which customers have a manual entry step, then need to wait for an SMS notification, and are required to leave the Telecom's app to authorize payments on the PSP's app. These extra payment steps create friction and resulted in a poor customer experience and led to a sales drop-off

## The Solution

### Original Solution

1. In the 'App', Customers select UPI on payment page
2. Customers manually type the UPI ID for payment
3. Customers get a SMS prompting to open a PSP app
4. Customers open respective PSP app and make payment
5. Customers close PSP app and switches to 'App' for confirmation



### Citi Solution

1. In the 'App', Subscriber selects UPI service provider on payment page
2. Subscriber is re-directed within 'App' via intent call to opens the respective PSP app for payment
3. Subscriber receives transaction confirmation within the 'App'

The solution is powered by the following CitiConnect APIs:

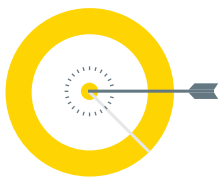


Authentication of Client Instruction



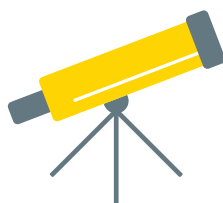
Confirmation of UPI credit status

## The Benefits



- Direct Integration using 'Intent Call' allowing end-to-end UPI flow to occur from within the 'App' for a seamless experience
- High success rate and Quicker transaction TAT given direct integration done without website re-directions or external codes
- Better visibility on transaction flow on account of hourly reconciliation MIS provided by Citi
- Real-time credit realization given funds are routed directly via Citi allowing early access to capital

## Potential Uses



- Citi APIs along with UPI can be used in multiple B2C industries where Companies need to collect funds in real-time
- Cash on Delivery transactions can be digitized using Citi APIs along with UPI where UPI collect request can be initiated in real-time



The background features a dark blue gradient with numerous horizontal lines and streaks of various colors, including purple, yellow, green, and red, creating a digital or data-like aesthetic.

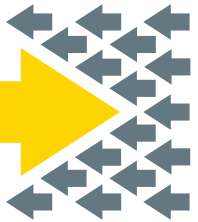
# INTEGRATING SALES INCENTIVES



# Instant Payment upon Goods Delivery

## The Company

Prominent global digital food delivery company with large local affiliation networks.



## The Challenge

In the competitive food delivery marketplace, a steady supply of riders on motorized or non-motorized vehicles is pivotal to ensure that meals are delivered to homes and offices on time, thus providing superior service quality to generate repeat business. As the company continues with its aggressive expansion to major cities around the world, it has to attract and retain a consistent supply of riders to deliver food to customers. A key way to do so is to ensure its riders are paid promptly and as frequently as possible.

## The Solution

While its competitors are still paying its riders periodically (usually once or twice a week) or upon request by the riders, this company is able to revolutionize its disbursement process using CitiConnect API, where its riders can be paid instantaneously straight to their bank accounts whenever a meal is delivered:

### STEP 1

Restaurant receives a home delivery food order from a customer

### STEP 2

Rider is notified to collect prepared food from the restaurant and deliver it to customer

### STEP 3

Upon confirmation of delivery by customer, the company is notified and automatically triggers an instant payment of the delivery fee to the rider's bank account

### STEP 4

Rider received notification that the delivery fee has been paid by the company

The solution is powered by the following CitiConnect APIs:



Authentication of company instruction

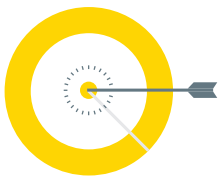


Payment initiation via a choice of local payment instruments



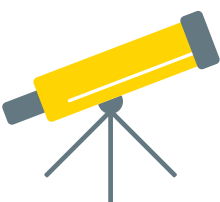
Payment status inquiry to confirm that payment is successfully made

## The Benefits



- Improved disbursement frequency to riders helps with new rider sign ups and prevents rider attrition. Riders' experience is improved as they can receive instant payments of their deliveries instead of waiting for batched periodic payments
- Instant payment of delivery fee is perceived as a competitive differentiator to its riders, which enables the company to meet its delivery commitments to customers and grow market share much faster than its competitors

## Potential Uses



- Similar arrangement may be used in the e-commerce goods delivery space where suppliers in an online marketplace are able to receive proceeds in real-time as soon as buyers confirm delivery
- Service may be designed to work with both real-time and non real-time payments, likewise with a wide range of domestic and cross-border payments

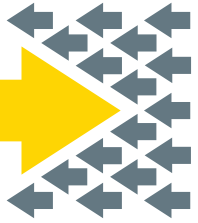


# Incentive Payment for New User Acquisitions



## The Company

Global cross-platform instant messaging and Voice Over Internet Protocol (VOIP) service.



## The Challenge

Coinciding with the launch of its new peer-to-peer (P2P) payment app in a new market, the company was looking to drive a highly aggressive customer acquisition campaign to increase user registrations to build local market share. To do so, the company was looking for a way to provide instant incentives for new user sign-ups.

## The Solution

Using CitiConnect API, the company is able to incentivize new users to sign up for its app, where a rebate is calculated and paid instantly after the user successfully executes the first transaction:

### STEP 1

User registers for the company's P2P payment app and funds it

### STEP 2

User makes the first P2P payment transaction according to published terms of the new user promotion

### STEP 3

Upon successful payment, the app calculates the rebate amount and triggers a payment back to the user's bank or e-wallet account via API

### STEP 4

User receives a notification through the app once the rebate is successfully credited

The solution is powered by the following CitiConnect APIs:



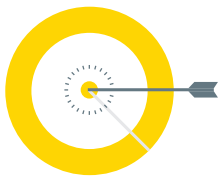
Authentication of company instruction



Payment initiation via real-time fulfilment



Payment status inquiry to confirm that payment is successfully made

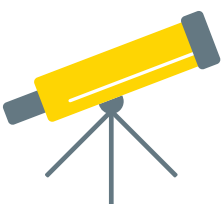


## The Benefits

- Growth in number of new user sign-ups, including capture of data on user demographics for tailored customer experience and periodic promotional activity
- Instant fulfilment conferred competitive differentiation against other P2P apps that contributed to market share growth

## Potential Uses

- Extend for use in further promotional/marketing initiatives in the customer lifecycle

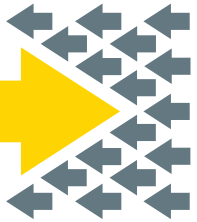




# Digitizing Sales Incentive Payments

## The Company

Global industrial and automotive lubricant company that sells a wide range of oils, grease and lubricants via an extensive network of retail outlets and automobile repair workshops.



## The Challenge

Fueled by a two-prong mission to incentivize sales growth and improve operational efficiency, the company was looking to digitize its end-to-end sales process and eliminate manual submissions of sales incentive claims by their distribution network.

## The Solution

Working with Citi, the company is able to implement a fully electronic sales solution that leverages CitiConnect API, thereby achieving its twin goals of digitizing its sales process and enabling electronic submission of sales incentive claims:



### STEP 1

Mechanic scans a QR code of the product at point of sale using the company's app

### STEP 2

Company tallies the total amount sold by each mechanic on a daily basis to calculate the incentive payable

### STEP 3

Company triggers the incentive payment based on amount sold directly to mechanic's account daily

The solution is powered by the following CitiConnect APIs:



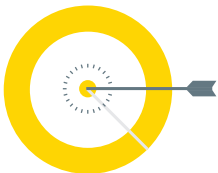
Authentication of company instruction



Payment initiation via real-time or non real-time payments

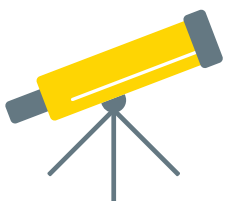


Payment status inquiry to confirm that payment is successfully made



## The Benefits

- Mechanics sell more of the company's products against that of competitors that do not provide similar incentives paid in a timely manner
- End-to-end efficiency, from digital capture of the sale to inventory management and incentive disbursement, ensures no manual handling and minimized risk of processing and reconciliation errors



## Potential Uses

- Other brick-and-mortar or direct sales industries that leverage incentive schemes can use a similar arrangement to increase the sale of their products and services

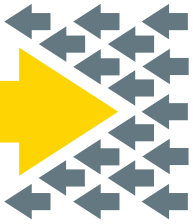
# Up-to-Date Account Information for Customer Service



## The Company

World-leading retailer leveraging a network of in-country agents.

## The Challenge



The company receives a significant number of calls daily from agents to inquire if a particular payment has been successfully made to the agent's account. If so, the company then confirms the shipment of the next batch of goods. Most of these queries are time-sensitive to enable the agents to meet sales targets.

To check if a particular payment has been successfully credited, the company's customer service receives an emailed account statement every 15 minutes from the bank.

Oftentimes, a particular payment is yet to be reflected on the account statement, and asking the agent to either call back or hang on to the line for 15 minutes for the next emailed account statement is impractical and increases operating costs.

## The Solution



With CitiConnect API, the company can now trigger a request at any time; an account statement will be sent to their customer service platform, where individual transactions can be reconciled directly against the agent's account.

### The solution is powered by the following CitiConnect APIs:

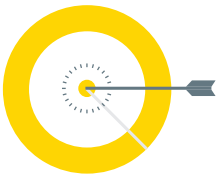


Authentication of company instruction



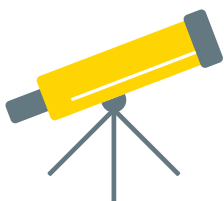
Account balance inquiry

## The Benefits



- Customer service is able to accurately respond to queries due to the real-time receipt of account statements with corresponding transaction details
- Operational efficiency through automated application of transaction details from account statements to the company's ERP system
- Enhanced customer experience as agents can obtain accurate information more efficiently

## Potential Uses



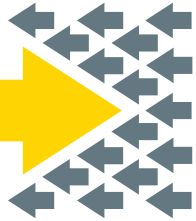
- Customizable trigger of API requests for account statements at varying frequencies or for specific durations – where requests may be initiated more frequently during peak customer service periods, at start of day or towards end of day, or based on expected call volumes



## WorldLink Payment Initiation

### The Company

Regional online video streaming / live broadcast platform fast growing global, with product portfolio of video broadcast and VoIP related products. The company group now has over 400 million monthly active users in over 150 countries worldwide.



### The Challenge

The company's video broadcast platform receives high volume and low value "reward fees" in various currencies from the watchers around the globe. The company also needs to make in-time reward fees to the live broadcast hosts in their local currency, who are also from around the globe. Frequent and various FX payments in both directions are required constantly.

### The Solution

The company chose the WorldLink® Services API solutions for direct access to Citi's WorldLink® Payment Services, a global cross-currency payment solution:

#### STEP 1

The company initiate foreign currency payments to broadcast hosts after receiving reward fees from watchers

#### STEP 2

The company confirms the quoted exchange rate as well as the payment instruction

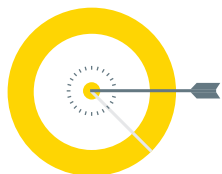
#### STEP 3

Company instructs the payment in foreign currency through Citi via the WorldLink® Services API

The solution is powered by the following CitiConnect APIs:

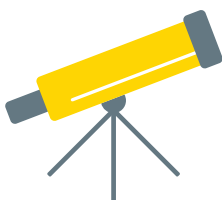


WorldLink Payment Initiation



### The Benefits

- Availability of a highly efficient foreign currency payments process to the platform hosts
- Company can provide cross-border payments in accurate, timely, flexible and secure manners



### Potential Uses

- Automate the whole reward fee collection, FX conversion and FX payment process in the platform's value chain, as well as combining WorldLink Payment Status Inquiry for increased transparency to watchers as well as hosts.

# Enabling Collections through India's Unified Payments Interface (UPI) Request-to-Pay



## The Company

World leader in direct selling of retail products.

## The Challenge

In India, the company was facing a high sales drop-out rate through its website as its online payment architecture required customers to manually fill in myriad of payment details such as card number, CVV, expiration date, followed by one-time-password (OTP) and PIN authentication.

## The Solution

To address this challenge, the company leveraged India's UPI system to enable instant "request-to-pay" from their customers, thereby significantly decreasing the time between point-of-sale and payment and increasing successful sales.

### STEP 1

Consumer buys products from company's website

### STEP 2

Consumer checks-out and pays via UPI by providing their UPI ID (tokenized financial identifier) to enable company to pull transaction from customer's bank account

### STEP 3

Payment is confirmed instantaneously and the company sends the goods to the consumers

The solution is powered by the following CitiConnect APIs:



Authentication service



Payment initiation via "request-to-pay"



Payment status inquiry

## The Benefits

Post-implementation, the company was able to reap the following benefits:

- Enable a new payment method for consumers via UPI
- Seamless customer experience and reduced sales drop-out rate

## Potential Uses

- Extend collections to other convenient modes of tokenized payment details without the need for account numbers, such as United Payment Interface (UPI) in India, PayNow in Singapore or PromptPay in Thailand



ENHANCING  
OPERATIONAL  
EFFICIENCY

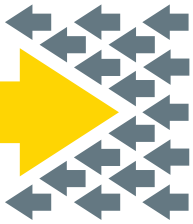
# Real-Time Balance Reporting



## The Company

Leading global services provider for wholesale imports and exports.

### The Challenge



As treasury management continues to become more hyper-connected with the collection and reconciliation processes, speed and accuracy of information are paramount for quick and efficient treasury and finance related decisions throughout the day.

Prior to this, the company relied on updated account balance statements, received every 15 minutes to check receipt of significant incoming payments, before executing FX related conversions from foreign currency to local currency, particularly during periods of high FX rates volatility.

This statement delivery method, which relied on once-a-day MT940 statements at the start of the day, was followed by MT942 messages every 15 minutes throughout the day. This exercise was considerably expensive due to the additional costs and dependency on the SWIFT network.

### The Solution



Working with Citi, the company is able to receive account balances in real-time via CitiConnect API. Requests for account balances may be triggered anytime throughout the day on-demand. Updated account balance is then received real-time and flows into the company's own treasury management system that provides real-time cash and liquidity visibility.

Finance personnel are able to log into their internal systems to view the updated account balances directly before making informed decisions on FX booking, investments and payment releases. This eliminates the previous need to check their emails for intra-day account balance statements to make these decisions.

**The solution is powered by the following CitiConnect APIs:**

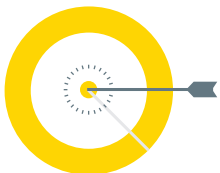


Authentication of company instruction



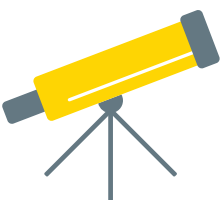
Account balance inquiry

### The Benefits



- Updated account balances now available real-time and on-demand
- Better-informed decision-making on treasury and finance decisions
- Integration of function with treasury management process
- Cost-effectiveness due to disintermediation of traditional service providers

### Potential Uses



- The company may assign a unique virtual account number for each customer, where updated balance may be viewed on-demand by the specific personnel responsible for that customer

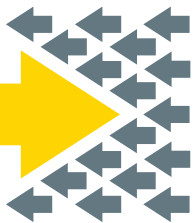


# Automated Country Holiday Schedules

## The Company

E-Commerce company specializing in cross-border trade operating in Asia Pacific.

### The Challenge



Companies that operate in multiple countries face the challenge of manual updates of country holiday schedules. Public holidays vary greatly from country-to-country, and some are oftentimes announced at short notice by their respective governments.

Companies would normally update the holiday schedules in their systems by first contacting their banks' service team located in each country and obtaining this information manually. This is a highly inefficient process, prone to human errors.

Should a particular holiday be missed, there will be mismatch between the date on which the bank expects to execute a transaction versus the company's own records, which results in reconciliation problems.

### The Solution



To mitigate these risks, the company is able to leverage CitiConnect API to retrieve country holiday schedules in real-time into their own internal systems. The APIs can be set to retrieve such information on-demand or following a pre-set schedule, which is a particularly useful feature because ad-hoc holidays can be declared at any time in any country.

The solution is powered by the following CitiConnect APIs:

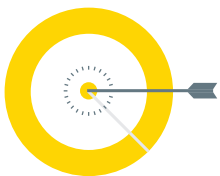


Authentication of company instruction



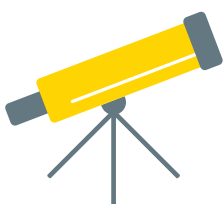
Branch holiday schedule inquiry

### The Benefits



- Country holiday schedules are continuously updated in the company's systems to ensure value dates are reflected correctly for every payment, which also minimizes the risk of payment rejections
- Increase operational efficiency by eliminating manual work and input errors of holiday schedule updates via automated updates which saves time and resources
- Reduce reconciliation problems that are caused by value date mismatches between a company's own records and banks' statements

### Potential Uses



- Updated holiday schedules can flow into the company's invoicing system, and be used to generate revised invoices or customer reminders for updated payment dates

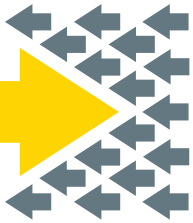


# Account Verification at Merchant Onboarding



## The Company

Payment gateway provider that enables merchants to collect payments online with best-in-class features and technology.



### The Challenge

Every day, the company signs up a large number of new merchants, and processes a high volume in transactions for them. Whenever a merchant is onboarded to the company's payment gateway service, it is required to provide its account details – so amounts collected may be accurately remitted to the merchant. However, the company's manual onboarding process, coupled with oftentimes erroneous bank account information provided by merchants, resulted in a disproportionate number of rejected first payments to the newly-onboarded merchants. The inefficiency resulted in many phone calls by such merchants to its customer service, and reconciliation issues that skyrocketed the company's operating costs.

### The Solution

To mitigate payment rejections caused by wrong account details, the company is able to digitize its merchant onboarding process and integrate it with CitiConnect API, which is able to validate the account numbers at the time of setting up a new merchant:

#### STEP 1

Merchant creates a new account at the company's website

#### STEP 2

Merchant keys in required details including bank account information, and submits scanned copies of documentation as required

#### STEP 3

The company sends a "penny test" transaction to validate merchant's bank account information, and immediately checks that there is no return of the test transaction

#### STEP 4

If the "penny test" transaction is not rejected, the account is deemed correct and the merchant is notified that it is successfully set up

The solution is powered by the following CitiConnect APIs:



Authentication of company instruction

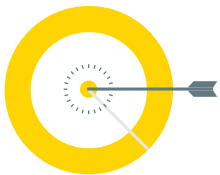


Payment initiation via Faster Payment schemes available in the country



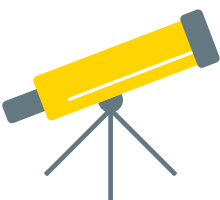
Payment status inquiry to confirm that payment is successfully made

### The Benefits



- Bank account details are verified digitally in an automated manner during the merchant onboarding process to ensure no subsequent rejection of payments
- Enhanced reconciliation efficiency by eliminating payment errors caused by incorrect bank account details provided
- Excellent end-to-end merchant onboarding experience promotes loyalty to the company's service

### Potential Uses



- Similar "penny testing" transactions can be triggered by APIs to work in any supplier onboarding scenario, particularly on cloud-based ERP systems

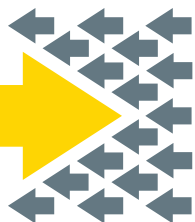


## Enabling Beneficiary Account Validation through 'Penny Testing'

### The Company

One of the world's largest asset management companies that provides mutual fund investment options for institutional, retail, and high-net-worth investors.

### The Challenge



As part of the Company's onboarding process, its customers ('Investors') were required to submit physical copies of cancelled cheques to verify their bank account details. Such validation is part of their onboarding/ KYC process. The process involved submission of physically signed cheque copies to the Company which would manually capture and maintain the details such as bank account number, branch name, address and IFSC Code of the account held by Investors with respective Banks. The Company then securely stores these cancelled cheques along with other onboarding documents. The process is highly manual and has high rejection turn-around for completion of onboarding process given involvement of physical cancelled cheques.

### The Solution

To ensure the robust and faster onboarding process, the Company has integrated its processes with Citi where it initiates a 'penny transaction' using IMPS (Faster Payments) through CitiConnect® for API. Citi sends the payment instruction to clearing network in real-time and returns the actual Beneficiary Name (as held with Beneficiary Bank) to Company through Transaction Status Inquiry API.

#### STEP 1

Customers ('Investors') submit their bank account details along with onboarding forms to Company for the KYC process

#### STEP 2

Company's personnel data-enters required details including bank information in their ERP

#### STEP 3

The Company initiates a "penny value payment" using IMPS (Faster Payment) via CitiConnect® for API

#### STEP 4

Citi returns the Account status and the actual Beneficiary Name (as held with Beneficiary Bank) to Company through Transaction Status Inquiry API

The solution is powered by the following CitiConnect APIs:



Authentication of Client Instruction

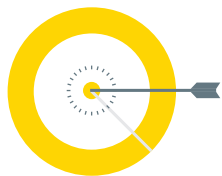


Payment initiation via IMPS (Faster Payments)



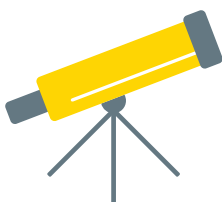
Payment Status Inquiry API to retrieve the Actual Bene Name

### The Benefits



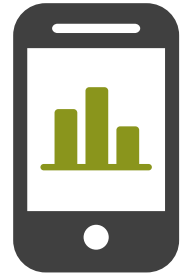
- Digital and Automated Bank Account Verification during the customer onboarding process pre-empting subsequent payment rejections
- Elimination of Manual Processes at the Company as cancelled cheques are no longer required from Customers
- Improved Customer Onboarding time given digital A/C validation leading to better customer experience

### Potential Uses



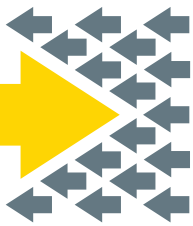
- Account Validation Services can be used by all corporates for the purpose of digital KYC as part of their onboarding processes
- Simplified Vendor Onboarding Process facilitated by IMPS (Faster Payments) which also provides enriched data of Actual Beneficiary Name (as held in the Beneficiary Bank)

# Credit Notification API



## The Company

Our clients is a leading global automobile manufacturing company with diverse portfolio including an extensive range of cars, sports utility vehicles, trucks, and buses. It is India's one of the largest original equipment manufacturer (OEM) offering extensive range of integrated, smart and e-mobility solutions.



## The Challenge

Our Clients works on cash-and-carry model. The client receives collections from a massive network of dealers & distributors. Upon confirmation of collections receipt, the client will authorize its inventory management unit to release the goods. The process of recording the collections is currently not real-time and there is a considerable lag between receipt of collections and release of goods.

## The Solution

### Original Solution

Client has an existing system, which enables batch confirmation every two hours for all the collection receipts from its nationwide dealership / financing entity networks.

### Citi Solution

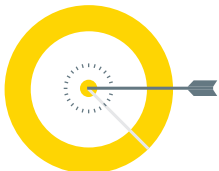
Using Credit Notification API, the client can achieve near real-time push credit notifications capability for the collections received and for subsequent release of goods, greatly increasing the inventory management responsiveness.

The solution is powered by the following CitiConnect APIs:



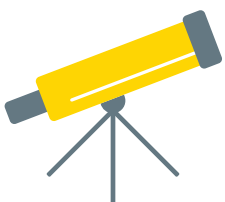
Credit Notification API

## The Benefits



- Improved collections credit notification flow from 2-hr batch to near real-time
- Reliable and secure info flow for massive distribution network
- Enabling a new level of inventory management

## Potential Uses



- Credit notification for upstream and downstream payments to improve overall inventory value chain effectiveness
- Extended application of credit notification API in financing activities as well as operating activities

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