



# Pay by Proxy

- Proxies make payments simpler by connecting payment details to mobile phone numbers or email addresses.
  - Well-designed retail payment systems should incorporate 'pay by proxy' to help electronic payment adoption.
  - Organisations are encouraged to adopt proxy management strategies to enable payment ubiquity.
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### A LOOK AROUND THE WORLD CAN HELP US UNDERSTAND THE MOST SUCCESSFUL APPROACH TO PROXIES.

Making electronic payments might be more inclusive if we did not have to enter complicated information when making them. Entering credit card or account information at checkout is tedious and a friction point that can lead to lost sales. The need to know the banking details of someone you want to send money to is not only inconvenient, it is a security risk. Enter proxies. Proxies make payments simpler by doing away with the need to know beneficiary bank details - all you need is their mobile number or email address. QR codes for paying businesses are another example of proxies - you don't need to know bank details, just scan the code and the payment will reach its destination.

A clear benefit of the Fintech revolution has been a sharpened focus on user experience. Nobody wants to handle bank account information. Nobody wants the anxiety of sending a payment to the wrong beneficiary. The proper development of proxies has the potential to lead to much better payment experiences, but only if regulators and market participants go about it in the right way.

#### Addresses Old and New

When payments were first automated there were no mobile phones nor internet. Banks began to exchange electronic files between each other bilaterally and then through centralised Automated Clearing Houses (ACHs). These ACHs were electronic postal exchanges that routed messages with structured addresses comprised of codes that represented banks, bank branches and individual account holders.

Using a comparison, imagine that when you sent an email you needed to enter the full postal address of the beneficiary. It would seem very complex now that we have become accustomed to the ubiquitous email address system, but in some ways the world of payments is like that. We are forced to use the old address system when better alternatives are available.

Fintechs have sought to do away with legacy banking frictions. Payment to email address or mobile number has been a feature of several electronic money payment systems for many years. As new instant payment schemes have started to replace tradition ACH systems, the latest development is the attempt to make 'pay by proxy' a ubiquitous feature of national payment schemes. There is quite some way to go. Pay by proxy is a feature of national clearing systems in some places but not others. The QR code has enabled a number of Asian Fintechs to create vast alternative payments networks.

What is clear is that a concerted effort is needed across regulators, banks, Fintechs and merchants to make 'pay by proxy' the norm, so that payments can adopt their true form - invisibility.



***"ADOPTION OF REAL-TIME PAYMENTS AROUND THE WORLD IS TIGHTLY COUPLED WITH CONVENIENCE, SIMPLICITY, AND REMOVAL OF FRICTION. WITHOUT A PROXY FEATURE, ALLOWING PAYERS TO SEND PAYMENTS TO OTHERS USING ONLY WHAT THEY ALREADY KNOW ABOUT THEM, LIKE A CELL PHONE NUMBER, THE GROWTH OF REAL-TIME PAYMENTS IS SERIOUSLY HINDERED. IN ADDITION, PROXY ENABLES MANY MORE USE-CASES AND MAKES THINGS LIKE ACCOUNT SWITCHING, OR INTEROPERABILITY BETWEEN BANK ACCOUNTS AND WALLETS MUCH EASIER."***

Jan Pilbauer, CEO, BankservAfrica

### Why Proxies?

They provide significant improvements in convenience, forget complicated banking details - they make payments to familiar, short addresses easy and simple. They also provide opportunities for inclusivity. While electronic payments may be exclusionary when they are complex. 'Pay by proxy' makes them simpler and easier for a wider section of society. Lastly they provide data management benefits. Bank details can change, which results in businesses facing a challenge to keep their records up to date. Proxies tend to be more static and keeping them up to date is typically in the hands of the beneficiary.

### Reaching true payment ubiquity

Considering how frequently proxies are used, they are a critical component in being able to make a payment to a beneficiary in any of their payment methods of their choice (payment ubiquity). Meeting the beneficiaries preferred payment method is increasingly being seen as a differentiator, especially for technology platforms and the digital economy. Payment ubiquity also brings with it the need to operate at scale and failed payments need to be serviced. As a result, completion rates are a critical metric for many in the digital economy, but getting a proxy to a "clear status" that is ready, owner confirmed and able to receive a payment of that type is a critical part of improving completion rates and reducing fraud risks. In summary, having numerous proxies available with some form of validation process that includes the beneficiary will improve both payment ubiquity as well as payment completion rates before the payment is even made.

### Where are they being used?

At least 12 countries and regions (36 countries if SEPA is included), have launched, are launching or have some version of a proxy identifier scheme and that excludes the large number of Fintech's that effectively use proxies to enable their solutions. Some payment schemes are taking an ambitious approach. In India proxy identifiers are built directly into the payment stack to act as an enablement layer where bank account information is not known. As the Payments Association in South Africa looks to revolutionize the payments infrastructure, they plan to include a proxy service where banks will maintain a centralized, validated set of proxies for each of their account holders to enable a service called "pay by proxy". It may offer some significant opportunities in terms of payment ubiquity and overcoming last mile challenges. Beyond these examples, there are broadly two different models under which proxy identifier programs arise.

### 1. National Scheme:

These programs tend to be centrally managed or controlled databases that participants contribute to. They enable the linkage of a proxy identifier like an email address or mobile number to a bank account in order to enable payments. A few examples are provided below

Country	Proxy Server	Proxy examples
United States	Zelle	Email, Mobile number
Hungary	Hungarian Proxy server	Email, Mobile number
India	UPI	UPI IDs
Singapore	PayNow	National ID, Mobile number, nickname
Hong Kong	FPS	Mobile number
Canada	Interac	Email, Mobile Number
Zambia	Mobile Switch	Mobile number
China	Mobile, Online and QR Payments	Mobile number
Thailand	PromptPay	National ID, mobile number, Tax ID
Australia	NPP	Email, Mobile number, ACN, ABN (businesses)
Brazil	PIX	Email, Mobile Number
SEPA (under development)	Proxy look-up scheme rule book <sup>1</sup> SPL mobile proxy look-up services <sup>2</sup>	Technical rule book
South Africa (under development)	Pay-by-Proxy	TBC, National ID, Mobile number, Email

<sup>1</sup><https://www.europeanpaymentscouncil.eu/what-we-do/other-schemes/sepa-proxy-lookup-scheme>

<sup>2</sup><https://www.europeanpaymentscouncil.eu/news-insights/insight/changing-reality-payments-standardised-proxy-lookup-service>

#### CASE STUDY 1: SINGAPORE



*For incentive payments to survey participants a University collects Mobile Numbers as proxy data to make payments once Surveys are completed. By using Proxies, there is no need for University staff to maintain petty cash to make payments to participants, reducing fraud risk and allowing for payment audit trails and ease of reconciliation.*

#### CASE STUDY 2: HONG KONG



*For investment proceed payments, a large asset manager invested a lot of effort to maintain up-to-date investor banking information (e.g. bank account, full name, etc.) to manage proceed payments. Using the proxy feature in Hong Kong for payments, they now only need to know the investors' proxy information (e.g. phone number, email address) and no longer need to collect or maintain up-to-date sets of investor banking information.*

### 2. Walled Garden:

The second cluster are more closed loop in nature but are the backbone for identifying and executing a payment on these platforms. They include Safaricom's M-Pesa, PayPal, Revolut and Mercado Pago.

#### Challenges with Proxies

Most organizations have already chosen the identifier that matters to them or that supports their business model for executing payments, and for the most part that is either a bank account or a card number. That is the identifier they collect, that they store and that they spend time validating to ensure they can execute transactions to and from their consumers. But, to reach true payment ubiquity, organizations need to be able to make a payment through whatever their beneficiary prefers. For this, they need to add to their existing identifiers and take steps to manage the collection, validation and controls associated with these other proxies within their treasury systems and processes.



***"ONE ACRE FUND STARTED BY IDENTIFYING FARMERS USING THEIR PHONE NUMBER, BUT WE QUICKLY FOUND PEOPLE SHARE PHONES AND NUMBERS. WE CREATED AN INTERNAL ACCOUNT NUMBER AS A UNIQUE WAY OF IDENTIFYING FARMERS AND LINKING THEIR PHONE NUMBER TO PAY THEM."***

**Sean Moran, Systems Operations Director, One Acre Fund**

Adoption of proxies is often challenged by the fact that many organisations today simply do not validate or check this information for accuracy. This is compounded by owners of proxies separating their personal and work lives and may use different email addresses or phone numbers for work and personal life. That means you can't be certain that the proxy you currently hold is the same one they use to get paid with. Another is sharing of proxies where more than one person in a household may use the same phone. This challenge has been seen in emerging markets by One Acre fund who used internal account numbers linked to the proxies and made the proxy owner responsible for capturing and updating the proxy information.

Adoption is not growing evenly in every location either. PayM in the United Kingdom is a mobile payment system provided by banks where users are identified by their mobile number rather than bank accounts. So why haven't we seen the adoption of PayM that we've seen in the U.S. or some of the examples in Asia Pacific? A few likely reasons might be that in locations like the U.S. there are still over 4,500 registered banks, so there's a benefit in only needing to know one identifying piece of information, while the UK has a far more consolidated banking industry. Another is that the UK has one of the highest card penetration rates in the world so Fintech's can easily provide services attached to a card to drive the frictionless services that consumers want.



**WHILE THE HUNGARIAN INSTANT PAYMENTS SCHEME ENABLES ALL MARKET PARTICIPANTS TO UTILIZE PROXY ID, ADOPTION OF THE TOKEN HAS NOT YET REACHED CRITICAL MASS. ACCELERATION OF ADOPTION IS EXPECTED TOGETHER WITH THE GRADUAL CHANGE OF CONSUMER BEHAVIOUR AS WELL AS ACTIONS UNDERTAKEN BY THE ECOMMERCE COMPANIES AND FINTECH'S IN THEIR SEARCH FOR A BEST IN CLASS CLIENT EXPERIENCE.**

Sebastian Kucharek, Treasury and Trade Solutions Head, CES

The sign up challenge. Adoption holds a critical first step through the sign up process. Connecting the email or mobile number to an account number securely is essential and a confusing sign-up process could make this difficult to do. Users are likely to be sensitive to having to input their account number numerous times, which means the sign-up process has to be simple and secure to help build confidence for the user.

Another is having the incorrect proxy for the intended use or not having collected the data at all. This challenge exists in the adoption of a host of new collection and alternative payment methods that are arising, as well as reimagined existing rails such as instant direct debits. If today you are a subscription service provider looking to take advantage of a cheaper new instant direct debits method but you have nothing but a database filled with card account numbers then again you have to go through a full migration process in order to take advantage of a new collection method and that can be a barrier, even when the reward of a change in methods is significant.

### **In Conclusion: Managing proxies**

While we continue to see the development of various different models for utilising proxies, we'd suggest a couple of practical proxy management strategies that may be deployed today to improve the collection of this information and help prepare organisations in getting closer to payment ubiquity tomorrow.

#### **1 Collect the data at sign up**

This may be a more obvious one, but when a new user signs up to a platform or service ensure you collect all their preferred proxy information upfront. It will help to improve the ability to make and accept more payment types as needed in the future.

#### **2 Create processes and validation steps now**

If payment ubiquity is in your future roadmap and vision, then whatever you do, start now. The sooner you collect the information you need and create the validation steps you need the sooner you can take advantage of the benefits multiple and alternative payment methods offer. There are learnings from users of proxies today, where leveraging internal accounts and making the beneficiary responsible for the data allows you to operate at scale.

#### **3 Offer a benefit to sharing more proxies or migrating**

If you're going to receive a benefit in the long run an upfront waiver or reduction in fees might be all the motivation your beneficiaries or customers need to switch and provide you with a new proxy that enables a more efficient payment or collection methods.

#### **4 Manage the proxy at point of payment failure**

This may make the most sense where risk of substitution is lower, and delivery of product/ service is digital, so access can be removed, if a collection fails or stops. But, if payment data needs to be updated, getting the proxy holder to update the relevant details is the only way to operate at scale.



**"GETTING THE CUSTOMER TO MANAGE THEIR PAYMENT DATA IS THE ONLY WAY TO OPERATE AT SCALE, BUT IT HAS TO BE SEAMLESS AND EASY, OTHERWISE THE RISK OF LOSING THE CUSTOMER ELEVATES."**

Dean Jordaan, Director - eCommerce and Payments

#### **5 Schemes that do pre-validation**

Be aware of schemes that do the pre-validation step ahead of payment execution. Some scheme based proxy-ID's, like PayNow in Singapore, are pre-validated and fetch data points like account nickname or account holder name, before the payment is executed, which helps to improve completion rates and reduce failed payments.

**As organisations look to achieve payment ubiquity, these four areas provide a starting point in designing for multiple proxy identifiers with ubiquity in mind, especially where that is the end goal. As more payment methods emerge, enabling the method of your customer or beneficiary's choice will be a differentiator.**

